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C A N A D A

**DESCENDING THE MOUNTAIN
DESCENDONS LA MONTAGNE**

Co-Chairs Message

We want to say a heartfelt thank you to everyone that made this conference a possibility. Most importantly, however, our families - who were very patient with the demands of trying to make this conference a success. At times as academics, teachers, and researchers our jobs can be isolating, particularly with the COVID restrictions over the past year and a half. Relationships are such an important part of the work that we do and the organization of this conference will forever be a bright spot for us because of all of the people across the world we got to work alongside.

THANK YOU!

- o All delegates and presenters for helping to make AIESEP 2021 a success – and a virtual one at that!
- o AIESEP Board for your support and trust.
- o The scientific committee for being flexible and adaptable.
- o The sous-comité scientifique Français for helping support bilingual content.
- o Our presenting partner, Ever Active Schools for their hard work and involvement.
- o The Faculty of Education at the University of Alberta for providing conference funding.
- o Our sponsors, PHE Canada and the Research Council for their support.
- o The many, many stage managers who volunteered their time to make sessions run as smoothly as possible.

We'd especially like to thank our steering committee - what a team! Hayley, Lauren, Jodi, and Shannon - who we consider to be wonderfully smart academics, but even better human beings and friends.

While we may never get over the fact that this conference was supposed to be happening on the Eastern Slopes of the Canadian Rockies - we still feel honoured that we were able to host AIESEP 2021 based in Canada. We had presenters and delegates from all over the world, presenting meaningful research that will no doubt shape the future of our field. So thank you again for your support, your attendance and your patience to help make this conference a success.

Doug & Lee

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Oral Presentations On-Demand

#2 Black Hole Effect in Science: A Journey from Economy Class Turkish PE Researches to (A)Broader Sense

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The origin of the concept of “Black Hole Effect in Science” is based on a group of Turkish PE and Sport Pedagogy studies’ design which were dominated by “Economy Class Research Tendency” (Boz & Kiremitci, 2021). This tendency refers to research(ers) that focus on easy research patterns. Although these studies seemed to adopt merely positivism at the first sight, related research tendencies show that field researchers could not recognize positivist paradigm in a broad perspective or they focus on certain models on purpose as they even neglect a variety of research patterns in positivism. In both ways, foundation of knowledge is lacking, foundation of knowledge is lost because of a single and narrow hegemony resulted from biased researcher tendencies. However, the critical concept of “Black Hole Effect in Science” includes limited scope within Turkish case. The aim of the present study is to reconsider the critical concept of “Black Hole Effect in Science”. The study grounds on Bourdieusian framework including habitus, capital, field. Documents, criticisms of a sociologist were evaluated in addition to self reflexivity. It was evaluated that “Black Hole Effect in Science” may be related with not only economy researcher tendencies but also inconsistencies in nowadays scientific system and culture. In this regard, criticisms are made on the components of the science including author, editor, reviewer roles, journal systems, academic titles, appointments and criterias. Product oriented science, socio-economic dominancy-competition and index-database classifications may also cause gaps and illusions. Demands, ever-expanding data and information can make it difficult to provide trustworthiness in addition to social, economic and cultural factors. In conclusion, the concept of “Black Hole Effect in Science” may have potential to investigate gaps in nowadays’ science.

A Case Study of Impact of Assessment for Learning on Skill Acquisition and Engagement in a Badminton Unit

Dr. Lena Chng (National Institute of Education, Singapore)

Purpose: This case study examined the acquisition of skills and student engagement in a badminton unit, in a Singapore's secondary school physical education class setting. The research questions were: a) How did the incorporation of AfL tools affect students' acquisition of skills? b) How did the incorporation of AfL tools impact students' engagement (i.e., response rate)? *Method:* A quasi-experimental group design method was used and one class had AfL tools incorporated in the teaching and learning, while the other class did not. *Results* showed that the class with AfL tools incorporated had a significantly higher response rate than the class without. Both classes experienced almost similar improvement of skills even though the class with AfL tools incorporated had less game play time. *Conclusion:* This study concluded that AfL when incorporated into lessons can increase engagement and motivation, with no significant conclusion on the impact on skill improvement and psychomotor learning.

A Case Study of the Philosophies of University Physical Education Teacher Education Faculty

Dr. COLLIN BROOKS (University of West Georgia), Dr. DR. JAIMIE MCMULLEN (University of Northern Colorado)

Background: Occupational socialization is considered a conceptual framework to design Physical Education Teacher Education (PETE) Programs. A PETE program's content and focus could be influenced in part by the philosophies of faculty who teach within a specific program. Faculty within PETE programs possess various philosophical orientations, and researchers describe a need to develop and test a variety of philosophical approaches leading to best practice recommendations. Therefore, the purpose of this study was to explore the teaching philosophies of PETE faculty and how their philosophies related to the PETE program vision. **Method:** This study employed a single instrumental qualitative case study design (Stake, 1995) where the philosophies of four current and three former faculty from one PETE program were thoroughly examined. The primary data source for this study were semi-structured interviews. Complementary data sources included two undergraduate physical education teaching program review reports and participant-developed critical incident timelines. The data were analyzed using categorical aggregation and direct interpretation methods (Stake, 1995). Codes with similar meanings were combined to develop themes. **Results:** Findings revealed three themes evident across all data sources: (a) influential relationships supported the development of individual teaching philosophies, (b) each faculty member contributed pieces of the program puzzle, and (c) induction preparation (dis)agreements. **Conclusion:** Future research should consider how influential relationships impact PETE faculty members' socialization experiences and their philosophical teaching beliefs and how those beliefs impact the development and delivery of PETE programs. Additional research efforts could also include examining PETE faculty's philosophical alignment with teacher socialization paradigms, including interpretive and functionalist approaches.

A movement for social justice in physical education: BAMEPE and its challenges

Dr. SHREHAN LYNCH (she/her) (The University of East London), Ms. Laura McBean (The University of East London)

Physical education (PE) is still considered a homogenous predominantly white group with people of colour historically being marginalised in the profession (Flintoff, Dowling & Fitzgerald, 2015; Simon & Azzarito, 2019; Blackshear, 2020). In 2019, as a call to action in England, the presenters share how they voluntarily began the BAMEPE (Black, Asian and Minority Ethnic) network to help address the lack of diversity of all marginalised groups within the profession. We have researched, presented and started several initiatives to fulfil our vision: (i) to raise the profile of physical education, (ii) to make changes in physical education to promote equity and equality, (iii) to support BAME physical educators, (iv) increase the number of BAME physical educators in PE teacher education recruitment, and (v) to engage BAME physical educators in research opportunities and network meet-ups. Our presentation shares our work but also details the complex issues surrounding our movement and initiatives. Specifically, advocating for representation is a political act, entangled within structures of inequity and inequality at both the national organisation level and within educators deeply held assumptions related to the subject matter. Moreover, the terms *equity*, *diversity*, and *inclusion* are often buzzwords used by institutions and educators without tangible acknowledgement into challenging structural inequities and inequalities. We hope that attendees leave the presentation with greater knowledge on our movement and the activism work we are carrying out with our communities. Additionally, we hope attendees choose to join our voluntary network as a form of solidarity with marginalised groups within the discipline.

A multi-level model to support physical education teachers as physical activity promoters

Prof. MARC CLOES (University of Liège)

Physical education (PE) teachers can be considered as the cornerstone of the promotion of a healthy and active lifestyle at school. Worldwide, researchers and practitioners have implemented and tested a wide range of projects aimed at responding to the recommendations of public authorities in this area (European Commission, 2015; UNESCO, 2017). Recent Covid pandemic demonstrated that educating physical literate citizens able to find appropriate ways to adapt their behavior to unusual conditions should become a priority. Such consideration justifies that current school and PE programs should more clearly integrate health requirements and students' autonomy. The aim of the presentation is to describe a four levels integrative model aiming to highlight how to increase PE teachers' chances of 'changing the life' of their students. It first underlines the PE teachers' role in the six pillars of the active school life and emphasizes the potential role of the physical educators at a meso level. The second level describes an original concentric model linking several concepts used over the past decade: from physical literacy to inclusive quality physical education. In a third step, the PAMIA principles (Cloes, 2017) and their implications are developed. At a micro-level, the "3P questions and loops" illustrate concrete decisions concerning each learning task. The whole model should guide PE teachers in their daily work and could also serve as a frame of reference in PE teacher education as well as in the field of sport pedagogy.

Advancing technology: Diversity and inclusion for physical education teacher education

Dr. DR. FRANCO ZENGARO (Jacksonville State University), Dr. DR. SALLY ZENGARO (Delta State University)

When educators look at ways to be more inclusive within the teaching field, we need to be cognizant that the issue sometimes can hit closer to home. Our classroom practices should be both responsive and reflective in principles and actions, reflecting the belief that all teacher candidates should have the opportunity to advance their academic goals. Physical education teacher education is not an exception to this. Faculty in teacher education need to be active agents of change, and this must start with the realization that not all students have the same learning needs. This awareness should prompt teacher educators to examine their own teaching practices and the conscious and unconscious messages we send to student teachers in our courses. The field of physical education presents its own problems when it comes to being inclusive for students with disabilities. To be inclusive is to believe that all students have the right to education where they can be an active participant. Inclusion is something students need to experience in our classroom before they have their own classrooms. Therefore, faculty can play a significant role in spearheading the process of inclusion and diversity by implementing teaching approaches that aim to modify classroom learning situations to be adaptive because university students may also have challenges that could otherwise impede them in their educational pursuits. This presentation will discuss the cases of two university students with disabilities pursuing degrees in physical education and the challenges and successes they have experienced in a teacher education program. Faculty can play a significant role in helping teacher candidates be successful in their teaching when they adopt methods that are responsive and empower students with disabilities to complete coursework requirements. The key to success is identifying and implementing pedagogies of inclusion, where all students feel they can achieve goals.

An Analytical Approach to Exercise Addiction among College Students

Mr. BO PENG (College of Physical Education and Health, East China Normal University), Mr. ZHIHUA YIN (East China Normal University)

Introduction: This article aims to provide scientific advice and guidance for college students' exercise. Through the questionnaire survey method and the literature data method, the proportion of exercise addiction among East China Normal University students and the characteristics of the weekly exercise time of exercise addicts are obtained. It is concluded that the probability of college students' exercise addiction increases with the increase of weekly exercise time, and the occurrence of exercise addiction could be effectively prevented by reasonable control of weekly exercise time.

Secondly, based on the dimensions of exercise motivation, this article makes a statistical analysis of the exercise motivation of exercise addicts, and finds the ranking of the degree of influence of five specific motivations (health motivation, fun motivation, appearance motivation, ability motivation, and social motivation) within exercise motivation on exercise addicts. The order of influence degree from strong to weak is: health motivation, appearance motivation, fun motivation, ability motivation, and social motivation. The motivational characteristics of students' participation in sports at East China Normal University are drawn, analyzed and discussed.

An exploration of teachers' needs to develop physical education in ECE in Spain. A qualitative approach

Dr. DR. CRISTINA HONRUBIA-MONTESINOS (University of Castilla La Mancha), Dr. Pedro Gil-Madróna (University of Castilla La Mancha), Dr. Luisa Losada-Puente (University of A Coruña)

The importance of physical education in early years is well-known due to the fact that it promotes social, emotional, cognitive and motor development. However, to do that, it is crucial the role of the early childhood teacher as he/ she is the main responsible for developing physical education. Teachers' needs have to be explored as they influence the teaching-learning process. For this reason, the main aim is to explore early childhood teachers' needs in physical education. A qualitative methodology was employed in which 20 teachers took part in interviews and focus groups. Data were analyzed through deductive and inductive approaches by Atlas.ti. With respect to the main findings, teachers stressed the need to improve the quality of initial and continuous training. Participants revealed that their initial training in physical education was scarce and the experts should be responsible for their continuous training through collaborative, meaningful and reflexive process. Furthermore, they highlighted the lack of personal and material resources to develop physical education adequately. Regarding contextual perspective, early childhood teachers manifested that families should be involved in improving the quality of physical education sessions. Taking these findings into account, teachers' needs have to be attended by academic and governmental institutions.

AN INVESTIGATION ON THE RELATIONSHIP BETWEEN THE CULTURAL VALUES AND INCLUSIVE ATTITUDES OF PHYSICAL EDUCATION TEACHERS IN WEST MIDLAND/ENGLAND

Mr. AZIZ ONURHAN AHRAZ (University of Birmingham)

The research findings reinforced evidence that there is no significant relationship between PE teachers' attitudes towards inclusion and their demographic information. Besides, results indicate that there is no remarkable correlation between the cultural values of PE teachers and their attitudes towards the inclusion of pupils with SEND. However, the only significant relationship between cultural dimensions and TAIS was found to be a low-level significant relationship with the UA(Uncertainty avoidance) dimension. However, study results reveal that there is need to further investigate the relationship between cultural values of teachers and their inclusive attitudes to able to contribute to inclusive education. Data of the study was collected through an on-line survey which consisted of three parts (demographic information, cultural values scale (Yoo, Donthu and Lenartowicz, 2011) and TAIS (Teacher Attitudes towards inclusion scale, Saloviita, 2015). Since schools closed due to Covid-19 lockdown, the participation ratio in the study was lower than expected.

ANALYSIS OF SPORT PROGRAMS AND PHYSICAL ACTIVITY STRATEGIC PLANS FOR CHILDREN AND YOUNG PEOPLE IN SPAIN

Mr. DANIEL LARA TORRES (Universidad de Castilla-La Mancha), Dr. DR. DAVID SÁNCHEZ MORA MORENO (Universidad de Castilla-La Mancha), Dr. DR. LUIS MIGUEL GARCÍA LÓPEZ (Universidad de Castilla-La Mancha), Ms. LUCÍA REYES (Universidad de Castilla-La Mancha)

Sport is becoming more and more relevant in our society, as it provides numerous benefits such as increased physical activity, the creation of healthy habits or the improvement of self-esteem, as well as being a socializing agent that favors the development of values (Whitehead et al., 2013). That is why in the infant-adolescent stage, sport programs and physical activity strategic plans (SP&PASP) with these objectives are developed. However, there are low levels of participation in these SP&PASP in Spain (Aladino, 2015). Given the importance of quality school-age SP&PASP, the aim of this paper is to analyze these programs in the 17 autonomous communities of Spain, and offer an overview of the state of the art. Framed in the different aspects we can find in SP&PASP at European and national level, those indicators that characterize them and promote its educational orientation were selected. These indicators are the coordination between sports and educational organizations, the fields of action, the sports modalities offered, the pedagogical training of coaches and educators, and mixed participation. After that, a search was carried out for the programs of each autonomous community, excluding the autonomous cities, to subsequently analyze each of the programs based on the indicators. Most of them show their concern for the integral development of the students with initiation, promotion and sports performance programs. They include some of the recommendations, as per our conclusion, for each of the indicators that promote the educational orientation of sports programs at school age. These are the use of thematic approaches to teaching sports in the early ages, modify or adapt the modalities to the level of the participants, mixed participation and the inclusion of specific programs to promote values. For this, coordination between sports and education administrations and adequate training of both teachers and coaches is necessary.

Analysis on the development trend of physical education teaching based on key competencies in China

Mr. SHUAI HUANG (m13262257871@163.com), Mr. ZHIHUA YIN (East China Normal University)

Introduction:With the implementation of the Physical Education and Health Curriculum Standards of High Schools (2017 Edition) issued in early 2018 in China, the development trend of physical education(PE) teaching was also changing (Cheng, 2019). The main purpose of this study was to specifically analyze the development trend of PE teaching in order to provide effective reference for the teaching of PE teachers.

Methods:The research journal articles in the field of PE teaching in China in recent five years was analyzed. The frequency statistics and content analysis were carried out in each dimension of the teaching framework system, and the consensus opinions were extracted.

Results :(a) Teaching based on key competencies is not “teaching for knowledge”, but “teaching based on knowledge and beyond knowledge”. (b) The learning objectives of modules, units and periods must be elaborated around the subject key competencies objectives, and the objectives guide the content, methods and assessment. (c) The teaching content is no longer limited to sports knowledge and skills, but is integrated with life-oriented and interdisciplinary content. (d) Pay attention to situational and structured instructional design. (e) Emphasize the joint participation of teachers and students, and increase the proportion of students’ independent, cooperative and inquiring learning time. (f) Creating a harmonious, lively and positive classroom atmosphere; (g) Implement in-depth teaching, abandon the habit of only focusing on imparting motor skills and knowledge, and pay more attention to the physical and mental experience of students’ participation and learning skills. (h) Emphasis on the combination of procedural and results-based assessment.

Conclusions:The PE teaching based on key competencies are changing in the whole framework system, and the change of each dimension has corresponding requirements in China. All of the PE teachers should have a deep understanding of the new trend of teaching development.

Appropriate Filming for Students' Learning in Physical Education

Dr. NAOKI SUZUKI (Tokyo Gakuge University), Mr. KOJI ISHII (Shinden Elementary School at Edogawa-ku)

Suzuki and Suzuki (2019) present several examples of how ICT is used in physical education, including taking video or still images. There are many examples of video recording, and most of the journal is devoted to them. Also, Kanagawa Prefectural Center for Comprehensive Education (2016) and Soma (2015) cite “the immediate ability to shoot and watch video” as effective use of tablet devices. It clearly shows that videotaping and viewing are effective. In the book by Suzuki and Suzuki (2019), it is reported that filming the game encouraged decision making and improved performance. On the other hand, although the filming time was mentioned as an issue (Suzuki and Suzuki, 2019), any literature that examined the appropriate filming time was not found. Therefore, this study's purpose was to propose a proper filming time concerning the filming scene, using a game teaching scene in physical education as a concrete example, and to verify the results from the learners' learning through practice.

Setting up the filming time and filming scene was conducted through three elementary school teachers and one junior high school teacher co-researchers from April 2017 to July 2018. Those that were discussed and examined regularly (once a month) and considered to be effective were implemented in a university class on teaching materials research for elementary school students, and 54 students who took class the effectiveness of this method was verified through the impressions of university students and interviews with five randomly selected students.

As a result of the research, it became clear that there were three types of filming:

- Filming for game analysis
- Filming for game understanding
- Filming for game reflection, and that there were appropriate time settings for each

Therefore, it was suggested that it is essential to set up time on the applications when filming is done in PE.

Blurred lines and swapping hats: Exploring the coach developer role in grassroots coaching

Dr. THOMAS LEEDER (University of Essex), Dr. DR. SIMON PHELAN (Oxford Brookes University)

Research exploring the explicit role of the coach developer has been largely absent from the sport coaching literature. Indeed, the term is often conflated with broader learning support roles, including coach educator, tutor, and mentor. Yet, these additional roles are understood differently by practitioners and coach developers, leading to divergent expectations of support. Consequently, the aim of this research was to uncover these ambiguities further and explore the lived experiences of coach developers providing *in situ* support, whilst lacking conceptual clarity on the pedagogical boundaries of their role.

Semi-structured interviews were conducted with 18 coach developers employed by a UK governing body. All 18 coach developers were employed as mentors to facilitate *in situ* coach learning; however, some were also employed as tutors delivering formal coach education. A reflexive thematic analysis procedure was adopted to analyse the data, involving an iterative abductive process integrating Hodkinson and colleagues' (2008) work on 'learning cultures' and the theory of 'practice architectures' (Kemmis et al., 2014).

The findings revealed a need for coherent messaging, with the coach developers suggesting their learners were sceptical towards their role, often misinterpreting the rationales behind their practice. However, the coach developers resonated with their learners as they themselves struggled to conceptualise the difference between developing coaches as either a mentor or tutor, highlighting challenges with having to 'swap hats'. Nonetheless, despite a congested coach development system, some coach developers were able to delineate fundamental differences between these roles. This research provides insight for governing bodies and coach developers.

Causes underlying the selection of content knowledge by teachers in Physical Education and Health

Prof. JONATHAN R. CHEVRIER (Université Laval), Prof. SYLVAIN TURCOTTE (Université de Sherbrooke), Prof. MARTIN ROY (Université de Sherbrooke), Prof. DENIS LOIZON (Université de Bourgogne)

Educational authorities expect teachers to teach the content knowledge of a program to achieve specific educational goals (Casey et al., 2015). Some teachers of PEH ignore the content knowledge of the program during their teaching (Stylianou et al., 2016) and prefer to use their personal knowledge and expertise to teach, instead of the program (Kloeppel et al., 2014). This situation led this study to find out the conscious and unconscious causes underlying the selected content knowledge they teach. The concept of “d’jà-là” coming from the framework of the clinical didactic (Loizon, 2013) served as the theoretical framework. The “d’jà-là” is made of elements from the personnel and professional historic of the teacher. The “d’jà-là” can influence the selection of content knowledge according to the a) experience (e.g.: as an athlete, as a coach, etc.), b) conceptualisation of PEH (e.g.: to develop sports abilities, etc.) and c) teaching intentions (e.g.: to develop sports abilities, to develop life and social skills, etc.).

A multiple case study was conducted with PEH teachers (n=5) from secondary schools. These teachers were interviewed before and after each of the observed lessons (5 to 12 lessons for each teacher). Lessons (n=43) were video recorded and then analyzed through a coding system to categorize the content knowledge selected by teachers. The data collected during the interviews were fully transcribed and analyzed using a deductive and inductive content analysis (L’Écuyer, 1997) to categorize the causes underlying the choices of teachers.

The results show that the main causes leading teachers to select content knowledge rely mostly on their experiences as coaches and their conceptions toward PEH which are sport oriented. Pedagogical reflections on how to influence pre-service and in-service teachers’ education to teach more about the content knowledge of the program and how the government can implement such program emerge.

Changes in preschool children's movement behaviors during the COVID-19 pandemic

Prof. AMY HA (The Chinese University of Hong Kong), Dr. DR. JOHAN NG (The Chinese University of Hong Kong), Dr. Qing He (The Chinese University of Hong Kong), Prof. Anthony Okely (University of Wollongong), Dr. DR. KAR HAU CHONG (University of Wollongong), Dr. DR. CECILIA CHAN (The Chinese University of Hong Kong)

The COVID-19 pandemic has led to many changes in daily routines of our lives. With tightened social distancing measures, face-to-face schooling for preschool children in many areas around the world have been suspended. Children in rural areas might also be restricted to stay indoors within confined space. For young children, such changes may lead to changes in their daily movement patterns, which may have implications on their physical health. In this study, we examined how preschool-aged children's movement behaviors, including their sedentary behaviors, physical activity, and sleep, were affected by the pandemic. Preschool children from Hong Kong ($N = 25$, age = 4.4 years, $SD = 0.3$) wore ActiGraph wGT3X-BT accelerometers before the COVID outbreak (April to December 2019) and after preschools have been suspended for approximately 5 months (June 2020). Data collected over a three-day period between were extracted and used for analyses. A compositional multivariate regression model for repeated measures was used to examine changes in the relative amount of time children spent on different movement behaviors. The results suggested that children had less proportion of time (9%) in sedentary, but spent more time in sleep (8%) and moderate-to-vigorous physical activity (16%). Increased sleep durations were due to later bedtimes (33 minutes) and wake up time (78 minutes). The proportion of children meeting World Health Organization guidelines for movement behaviors were similar across both timepoints. The results suggest that school attendance might have negatively impacted young children's physical activity in Hong Kong. This may be due to long durations of sedentary instructions at schools, and can be negated by additional active learning experiences in the classroom. Nonetheless, the lack of face-to-face instruction may also impact children's motor skill development, which should be examined in further studies.

Chinese sport, celebrity role models, and a burgeoning middle-class social identity

Mr. LONGXI LI (Springfield College), Dr. Oliver Rick (Springfield College)

Abstract

The development of Chinese sport since the end of the Beijing Olympic and Paralympic games in 2008 has been driven by investment in a core number of we have termed “global sports” - soccer, basketball, tennis, golf, and others. These are sports that have been recognized by the national government in China for their potential to service a number of goals: These sports are connected to a global system, providing a platform for Chinese success that extends around the world; there are opportunities for economic gain derived from government-led investment; and, significantly to this presentation, they are sports that are attuned to the growth of the middle class. In 2002 then President of the People’s Republic of China, Jiang Zemin, stated that “the goal was to ‘control the growth of the upper stratum of society, expand the middle, and reduce the bottom’” (Goodman, 2014, p. 49). On the back of a decade of rapid economic growth, this design for the class structure of China was largely realized. Now sport policy has been increasingly oriented toward providing the experiences and forms of participation that match the appetites of this newly formed group.

As global sports have been at the forefront of sports policy over the last decade athletes from across these sports have also risen to a new level of cultural significance. These athletes have become role models for many people newly elevated into the middle-class, especially young people. In this presentation, we examine the expansion of middle-class sporting experiences in China and analyze the role of sports celebrities in modeling the creation of a mass middle-class social identity in China today.

Class Management in Physical Education: Promoting Moderate to Vigorous Physical Activity Intensity

Dr. DR. TERI SCHLOSSER (University of North Carolina at Pembroke), Dr. DR. JESSICA SIEGELE (University of North Carolina at Pembroke)

Understanding effective teaching practices is necessary to promote quality physical education programming and contribute to the professional practice. The implementation of the four constructs outlined in the Assessing Quality Teaching Rubrics can assist teachers in evaluating effective and quality lessons delivered in the physical education classroom. All four constructs play a vital role in producing quality physical education programming. The focus of this paper is to highlight one teaching strategy that particularly impacts the moderate to vigorous physical activity (MVPA) levels of students during physical education, management. Class management addresses the ability to use class time efficiently by gaining attention, distributing equipment, grouping students, and transitioning. Effective class management is being able to reduce time off task while increasing activity time and intensity, which provides additional opportunities for practice which enhances student learning (Chen et al., 2011; Rink, 2013). Class management begins with establishing a supportive environment and clear behavioral expectations. Establishing a routine as students enter and exit class to gain attention, distribute equipment, group students, and transition between activities can positively impact student behavior (Rink & Hall, 2008). Effective teaching strategies in physical education demonstrate a commitment to improving the health of students by promoting physical activity (McKenzie & Lounsbery, 2013; Rink & Hall, 2008).

Combining Listening, Physical Activity, and Time in the Great Outdoors as Graduate Student Resiliency Strategies in Contemporary Times

Ms. LISA M. TAYLOR (University of Calgary)

Proponents of the Comprehensive School Health approach recognize that students and teachers who are well are more likely to realize their full potential as learners and instructors, respectively. As a former K-12 physical and health education teacher, current educational doctoral student and post-secondary sessional instructor focused on learning, teaching, and researching wellness in schools, I recognize the importance of supporting my own wellness so that I can be the best person and professional that I can be. Following the arrival of COVID-19 in Alberta, Canada, my daily routine and work life balance were challenged like never before; I found my distinct roles as a mother, partner, student, and teacher had blended together in an unrecognizable fashion. Grateful for the newfound time with my family, I was also plagued by stress due to my perceived decline in professional productivity. However, by embodying my core values as a physical and health education specialist and advocate, I used three strategies to persevere during this time; I *listened* to readings using technological assistance and pdf reading phone applications, engaged in daily physical activity, and embraced the outdoors. By plugging a reading into my ears, hopping on my bike, and exploring nearby parks and pathways, I found opportunity away from my desk, embracing activity, and breathing deeply outside; in particular, this simultaneous engagement of all three strategies resulted in an approach to practice that helped restore my professional productivity. In this presentation, I reflect on my experiences during the COVID-19 pandemic personally and professionally as well as speak to the literature that supports physical activity and being outdoors as positive contributors to our multi-faceted wellness. My goal is to inspire a continuous line of questioning regarding norms of practice and to further advocate for well-being as an investment in academic excellence.

Comparison of Physical Literacy Standards in Developed Countries or Regions

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Introduction: The purpose of this study is to present the current research findings on physical literacy, understand the historical process of physical literacy from definition to framework construction, and then to assessment and cultivation research, consolidate the theoretical foundation of physical literacy research in China.

Methods: Using the documents related to physical literacy in 6 countries, namely the United Kingdom, Canada, the United States, New Zealand, Wales and Australia, conducting comparative study of the physical literacy systems in each country from 5 aspects: background, definition, components, measurement, and cultivation.

Results: In terms of background, the global decline in physical activity is a broad context, physical inactivity is the third most important risk factor globally. Definitions of physical literacy emphasize motivation, confidence, physical ability, knowledge and understanding, and encompass both physical and spiritual dimensions. In terms of physical literacy frameworks, countries have drawn on the experience of the International Physical Literacy Association, with physical, emotional, and cognitive as the main frameworks. The physical literacy assessment were compared and summarized from four aspects, namely assessment subjects, contents, standards and methods; Publishing physical literacy resource libraries or physical literacy guidelines is still the choice of most countries.

Conclusions: Link between concept of physical literacy and physical education curriculum will be closer; vertical and horizontal articulation of components and stages will become the main framework of physical literacy standards; physical literacy assessment will shift to a combination of qualitative and quantitative assessment; physical literacy cultivation for different groups of people will become more and more specific.

Creating a Thirdspace in PETE: Fostering Justice, Equity, and Inclusion through Movement

*Prof. KANAE HANEISHI (Valley City State University), Dr. DR. BETTY BLOCK (Texas A&M University-Commerce),
Dr. DR. EMILIA ZARCO (Adelphi University)*

Abstract:

In this age of radical individualism, social unrest, and calls for social justice, society needs an educational space in schools that emphasizes awareness of self and diverse others and acceptance practices more than ever. Physical Education Teacher Education (PETE) scholars are in a unique position to address social issues through instructional strategies that focus on the *body as subject* ideal. The *body as subject* ideal honors respect for the subjectivity of the self-in-the-world and the recognition that each individual brings their own subjective awareness to every situation through *bodily-knowing*. The content in PETE programs is an educational space whereby mindfulness training, self-awareness activities, and strategies for accepting diverse others, as well as promoting gender equity and social justice can be propagated. The presenters propose the following theory: *Expanding the educational space to include movements that place students as subjects of their own first-person subjective experiences will lead to the cultivation of mindfulness, motivation, and meaning within social, historical, and cultural contexts, as well as promote positive connections with self and others.* The theory is based on the philosophical phenomena of embodiment and embeddedness using a feminist perspective of the body along with the views of Kinesiology scholars. The educational space the presenters recommend is based on Culp's (2020) *Thirdspace*. The **Thirdspace** in this context includes an eclectic mix of Eastern and Western movement forms that can be implemented in the PETE curriculum - a place whereby pre-service teachers can experience and learn ways to foster equity, diversity, inclusion, and social justice in their physical education classrooms.

Reference:

Culp, B. (2020). Thirdspace investigations: Geography, dehumanization, and seeking spatial justice in kinesiology. *Quest*, DOI: 10.1080/00336297.2020.1729824

Creative and complex ways of knowing and ways of being through embodied physical education teacher education assessment

Dr. DR. ALISON MURRAY (Roehampton University)

Dedicated to Luke Pearce; forever a PE specialist

Contemporary times make disconnection of self, of others in relation to self, ever more probable. For student teachers and tutors alike, tensions between experiencing and attaining expected higher education academic proficiencies with lived known and unknown constraints, catalysed the collective decision to adopt a bolder approach to and through the PE specialism module assignment. This paper shares the journey, the collective decisions to stay together and face the challenges as one connected collective. Displaying all aspects of a complex adaptive system, the group embraced the complexity system quality of ambiguously bounded (Davis and Sumara, 2006) as the entry point to reframe the existing assessment; set through solo endeavours for a two part assignment, whilst meeting programmed targets.

Part one invites student teachers to create a learning resource, as illuminated through subject knowledge and creative pedagogy; 45%. In the second part, the rationale, the resource is justified, and again, academically anchored to a range of subject-relevant reading drawn from appropriate and authoritative sources, including theory, research and policy documents; 45%, and communicated as expected through a reference systematic process; 10%. Future module minor modifications will seek to imbed a disposition driven weighting as to explicitly acknowledge and enact what we hold dearest as regards the way of being for our embodied subject of physical education.

The inspirational specialist cohort have been tested emotionally (never an element of the rubric) and will now dedicate their collective creativity resource creation; a set of developmentally appropriate fundamental movement task cards, to their fallen colleague.

Voices from the collective are shared to note the duplicities of student strength and fragility, of transaction and transformation, of boldness of action and humanity of compassion as the group re-emerge and re-dedicate an emerging way forward.

Creative and complex ways of knowing and ways of being a through embodied physical education teacher education assessment

*Dr. DR. ALISON MURRAY (Roehampton University), Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University),
Dr. Roehampton Year 2 Primary Physical Education Specialist Cohort (University of Roehampton)*

Dedicated to Luke Pearce; forever a PE specialist

Contemporary times make disconnection of self, of others in relation to self, ever more probable. For student teachers and tutors alike, tensions between experiencing and attaining expected higher education academic proficiencies with lived known and unknown constraints, catalysed the collective decision to adopt a bolder approach to and through the PE specialism module assignment.

This paper shares the journey, the collective decisions to stay together and face the challenges as one connected collective. Displaying all aspects of a complex adaptive system, the cohort embraced the complexity system quality of ambiguously bounded (Davis & Sumara, 2006) as the entry point to reframe the existing assessment which was set through solo endeavours for a two-part assignment.

Part one invites student (teachers) to create a learning resource, and demonstrate an understanding of specific subject knowledge and creative pedagogy through the design and content of its design and intent. In the second part, the rationale, they are to justify the resource in relation to its potential for developing children's creativity in a subject specific context. Having endured the second semester of their first year through lockdown, the cohort decided to take on part 1 as a team. They collectively created a set of developmentally appropriate fundamental movement task cards (*dedicated to Luke*), and then to use collective competencies as momentum to embrace part 2.

The cohort have been tested emotionally (never an element of the rubric), the paper shares the cohort's collective voices emerging practice, making sense of the nuances across assessment ambiguities to find new and deeper connections emerge through the cohort's culminated piece. It notes the duplicities of strength and fragility, of transaction and transformation, of boldness of action and humanity of compassion as the cohort re-emerge and re- dedicate an emerging way forward.

Cultural adaptation, validity, and reliability of the Little Developmental Coordination Disorder Questionnaire (L-DCDQ) in Finnish

Dr. Piritta Asunta (LIKES Research Centre for Physical Activity and Health), Dr. DR. ARJA SÄÄKSLAHTI (University of Jyväskylä), Mrs. ANETTE MEHTÄLÄ (LIKES Research Centre for Physical Activity and Health), Mr. Tuomas Kukko (LIKES Research Centre for Physical Activity and Health), Mr. Harto Hakonen (LIKES Research Centre for Physical Activity and Health), Dr. Helena Viholainen (University of Jyväskylä), Dr. DR. TUIJA TAMMELIN (LIKES Research Centre for Physical Activity and Health)

Background: Developmental coordination disorder (DCD), affecting 5-6% of children, is a common but unidentified disorder. It is characterized by poor motor coordination and difficulty learning new motor skills. Teachers lack instruments to reliably detect children at risk of DCD. The Little Developmental Coordination Disorder Questionnaire (L-DCDQ) is a questionnaire that screens for motor learning difficulties in children aged 3 to 4 years across home and in preschool environments. This study aimed to examine the following psychometric properties of the Finnish L-DCDQ: 1) item consistency and 2) test-retest reliability.

Methods and procedure: The cultural adaptation to the Finnish language was done through six steps under Beaton et al. (2000). Internal consistency of the L-DCDQ-FI was determined by Cronbach's alpha, and the test-retest reliability was examined by calculating the intraclass correlation coefficients (ICC) and using Cohen's weighted Kappa value. A total of 295 parents of 3–6-year-olds (mean age 5.1, 47% boys) completed the L-DCDQ during 2020–2021. To assess test-retest reliability, 65 parents completed the questionnaire twice with an interval of 3.4 weeks on average.

Outcomes and results: The data collection is still going on during spring 2021. This scale proved to have high internal consistency ($\alpha = 0.89$, 95% CI 0.87–0.90). The ICC between the two test scores was 0.85 (95% CI 0.77–0.91); girls 0.76 and boys 0.91. Weighted kappa was on average moderate 0.66 and ranged for the individual items from moderate (0.49) to substantial (0.78).

Conclusions: The preliminary results showed that this questionnaire, with a new translation and adaptation to Finnish culture, appears to be a valid and reliable tool for measuring motor learning difficulties in children. This information can be used in early childhood education to recognize motor learning difficulties and support children's motor development.

Cultural leadership in Physical Education

Ms. ANNEMARI SVENDSEN (University of Southern Denmark), Ms. Louise Storm (University of Southern Denmark)

Aim: In Physical Education (PE) the teacher is in a central position in regard to developing and maintaining the culture of the class. In other words, they can be seen as cultural leaders. By that, we suggest that being a teacher is about more than the specific planning of the class in terms of purpose, content and methods. As a cultural leader the teacher have a substantial impact on the cultural values that are (re)produced in the context where they are operating – and thus that this is significant in relation to their daily practice.

However, the concept of cultural leadership has received only scant attention in literature concerned with the role of PE- teachers. The aim of this study is in that regard to prepare the grounds for and indicate the relevance of the concept of cultural leadership in PE.

Method: The methodology is based on a heuristic approach and literature review. This approach involves creatively forming different inputs from the literature on PE and discussing and revising the different ideas several times in order to organise and put forward some tendencies that we see in the literature.

Results: The presentation outlines key existing research related to this area that may inform the conceptualization of cultural leadership. We suggest some guiding principles for cultural leadership in PE and the way this may be seen as a new pedagogical concept.

Conclusion:As a cultural leader the PE teacher have a substantial impact on the cultural values that are (re)produced in the context where they are operating. This makes it relevant to be more aware of cultural leadership as a pedagogical concept.

Delivering a Coach Education Programme to Community-Based, Volunteer Youth Sport Coaches: Project FLAME

Ms. Orla Murphy (School of Education, Sports Studies and Physical Education Programme, University College Cork, Cork), Dr. Wesley O'Brien (School of Education, Sports Studies and Physical Education Programme, University College Cork, Cork), Dr. Sarahjane Belton (Centre of Preventive Medicine, School of Health and Human Performance, Dublin City University, Dublin.)

Objective

A need to develop appropriate community-based interventions to improve adolescent motor competence has been previously highlighted, particularly as these areas of movement are not being sufficiently developed in both Physical Education and youth sport settings. This current research aimed to assess the implementation considerations of online coach education for Project FLAME (a previously successful school-based intervention for adolescent motor competence), in youth sport settings in Ireland with volunteer coaches.

Methods

Two synchronous online coach education workshops (2 x 75 minutes each) were designed to upskill volunteer youth sport coaches on delivering the Project FLAME intervention in their club setting. Coaches from Cork (Ireland) were recruited via online advertisement through a local sports partnership group. A sample of 23 coaches from a variety of sports backgrounds took part in both coach education workshops (19 males, 4 females). Following completion of the online training, 4 coaches took part in an online focus group discussion relating to their perceptions of coaching motor competence, and their experiences of the online workshops.

Results

Coach feedback was largely positive, with all coaches satisfied with the training received. Thematic analysis of the focus group revealed that: 1) Coaches lacked prior knowledge of motor competence; 2) Coaches identified the role of adults as important influencing factors in promoting adolescent movement; 3) The use of digital visual resources in the workshops were highly valued by coaches.

Implications

Positive findings from this first phase of online coach education delivery suggests that further workshops could be conducted with youth sport coaching cohorts, specifically those interested in adolescent motor competence. With the previous success of Project FLAME evident in the Physical Education context, heightening the evidence for such a programme with youth sport coaches may signify further improvements in adolescent motor competence, with potential to inform future volunteer coach education programmes.

Dialogic togetherness as an activist form of professional learning in times of educational vulnerability

Dr. Aspasia Dania (School of Physical Education and Sport Science, National and Kapodistrian University of Athens),

Dr. Alan Ovens (School of Curriculum and Pedagogy, Faculty of Education and Social Work, University of Auckland)

The online teaching practices of the Covid-19 period created new relational spaces that teacher educators had to confront in order to survive personally and academically. Research has shown that dialogue can be a valuable strategy for handling challenges and developing knowledge-in-action during unexpected circumstances.

The aim of the present study was to explore the value of reflective dialogue as a tool to assist a novice teacher educator to overcome instructional challenges during the pandemic and develop professionally while adjusting to new norms.

A self-narrative was constructed based on the first author's written-down reflections from a bi-weekly online dialogue with an experienced colleague, focusing on pedagogy and career development. The dialogic interchange occurred during a period of six months and was initiated as part of both colleagues' effort to build professional rapport.

The narrative focused on the positive, negative and ambivalent feelings that the first author attached to the dialogic interaction and the way these formulated her professional decisions and actions during the pandemic outbreak. Data were analyzed by using an inductive approach of open and axial coding

The findings indicated that both at a content and at an emotional level, dialogic reflection can raise teacher educators' personal and professional awareness and enhance feelings of self-regulation. Firstly, by sharing life and career stories, the author was able to diminish feelings of isolation and feel trusted to pursue shared goals, despite the challenges imposed by online teaching. Furthermore, the co-constructed dialogic conclusions promoted her reflection on general teaching issues and stimulated empowerment to achieve educational goals in a more flexible manner.

In response to the oppressive circumstances occurring in teacher education worldwide due to the pandemic, the present study results are discussed under a critical pedagogy framework and particularly in terms of undertaking educational action that can be both deliberative and tolerant.

Differences Between the U.S. and Japan in Elementary Physical Education Classes: Motor learning Perspectives

Ms. RISA KO MURAI (Juntendo University / Wayo women's University), Ms. AOBA MATSUNAGA (Juntendo University), Ms. MINDY LORIMOR (Valley City State University), Prof. TOMOKO OGIWARA (Juntendo University), Prof. KANAE HANEISHI (Valley City State University)

We executed a special project crossing two countries. The purpose of this project was to examine differences between the U.S. and Japan in Elementary Physical Education Classes from various Motor Learning perspectives. One physical education lesson from each country were video-recorded and analyzed. Participants were Japanese and American P.E. teachers as well as the students. The Japanese P.E. lesson implemented a Hand Tennis unit in fourth grade while the American P.E. lesson implemented a Throwing unit in second grade. The pedagogical methods were analyzed based on various Motor Learning concepts including *Conditions of Practice*, *Augmented Feedback*, *Learning Process*, and *Retention and Transfer*. In *Conditions of Practice*, examples were presented about Distance Effect, Motivation, Success, Guidance, and Observational Learning from each lesson. In *Augmented Feedback*, three questions were investigated: “What kind of feedback was used?” “Is there difference about Positive Feedback?” “What is the best way to teach Physical Education?” In *Learning Process*, three stage of motor learning was discussed based on the analyses. In *Retention and Transfer*, we analyzed that retention and transfer in each lesson.

In conclusion, no matter the countries are, teachers had their ways of delivering information and motor learning at its core was very similar. The way of delivering information may have looked different but many concepts were alike. For the future research, it would be more useful if we collected data from same units and grades. It will enable to compare the differences in more details.

Doing and saying content – a comparative analysis of the practical knowledge in PE classes

Dr. Benjamin Zander (University of Göttingen), Dr. Daniel Schiller (University of Osnabrück)

Background and purpose

Games as content of PE mark a broad and central field of research in sport pedagogy. For several years, research on the co-constructed process of PE content has been assigned relevance (Amade-Escot & O'Sullivan, 2007), but has so far only partially been implemented. Understanding PE as a “temporally unfolding and spatially dispersed nexus of doings and sayings” (Schatzki, 1996, p. 89), perspectives open up on the practical knowledge through which PE content is constituted as specific and meaningful content.

Methods

From such research perspective, PE classes on the content area of game in primary school were videographed and interpreted using the documentary method (Bohnsack, 2014). Two cases will be contrasted in the presentation.

Results

At first glance, the contents in the two cases are similar, e.g. in the temporal phases (game explanation, playing, game reflection). At the level of practical knowledge, however, strong differences become apparent. For instance, the Doings and Sayings in the one case are oriented towards a game change for everyone in order to integrate a person into the game happening. In the second case, the strict maintenance of the flow of the game is prioritized over other emerging issues (e.g. rule violations).

Conclusions and implications

The results help to better comprehend teaching-learning settings in their practical logic (Amade-Escot & O'Sullivan, 2007) and provide teachers with a reflective knowledge about co-constructed process of PE content.

Literature

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DOING RESEARCH ETHICALLY: REFLECTIONS ON THE ADMINISTRATIVE PROCESS

Dr. HO KEAT LENG (Nanyang Technological University), Mr. Kin Kiew Chu (Nanyang Technological University), Dr. Yen-Chun Lin (Nanyang Technological University), Mr. Philip Phua (Nanyang Technological University)

It is important for research to be conducted in an ethical manner to protect human subjects. However, the administrative process in applying for an ethics review in research can be perceived to be onerous and time-consuming. The aim of this study is to examine how researchers in the area of physical education perceive the administrative process in applying for an ethics review. In this study, 6 faculty members in the area of physical education in a university in Singapore were interviewed on their experiences in applying for ethics review in their research. The study found that in completing an application for ethics review, the administrative process can provide an opportunity for researchers to review their research design and strengthen the ethical processes related to their study, particularly among faculty members with less research experience. However, the process can sometimes be frustrating. The respondents noted that due to frequent changes in the administrative processes which are not communicated effectively, they need to make many revisions to their applications. In addition, minor issues such as typos often hold up the application. Finally, as there are several levels in the review process, each helmed by different reviewers, the process can take a long time particularly when the reviewers offer conflicting recommendations. When the research study is a student project with a tight timeline, these delays can lead to additional stress and frustration for both faculty members and students. The findings suggest that institutions should simplify and communicate effectively on the application processes for ethics review to allow researchers to focus on the research rather than the administrative processes.

Educative mentoring in sport coaching: A reciprocal learning process

Dr. THOMAS LEEDER (University of Essex), Dr. DR. KATE RUSSELL (University of East Anglia), Dr. DR. LEE BEAUMONT (University of East Anglia)

Educative mentoring positions mentors and mentees as co-learners within a collaborative relationship whilst emphasising reciprocal learning. However, research exploring educative mentoring has been limited to teacher-mentors, restricting our understanding of the potential learning opportunities an educative stance provides mentors within sport coaching contexts. Consequently, the aim of this research was to explore the learning and development of sport coach mentors, with a specific focus on whether they were able to learn reciprocally from their mentees in a two-way process. As part of a wider research project, semi-structured telephone interviews were conducted with 10 sport coach mentors employed by a sport governing body, with interview transcripts subject to a reflexive thematic analysis process. The findings suggest that when an educative stance is adopted by a sport coach mentor, they can both see and engage with collaborative learning opportunities with their mentees, which results in possibilities for growth and professional development. More specifically, educative mentoring enabled the sport coach mentors to obtain several technical, professional, and personal outcomes, through the facilitation of an expansive learning environment which broadened their horizons towards coaching practice. Finally, educative mentoring enabled sport coach mentors to not only re-position themselves, but also re-position the role of the mentee, with an acknowledgment that mentees are capable practitioners with experiences sport coach mentors can draw upon. Practical implications and recommendations for mentor training and development programmes in sport coaching and physical education settings are discussed.

Effects of 4-Week IAAF Kids' Athletics Practice on Bio-motoric Properties in Primary School Children

Dr. Hayriye Çakır-Atabek (Eskişehir Technical University, Faculty of Sport Sciences, Department of Coach Training in Sports),

Dr. Cihan Aygün (Eskişehir Technical University, Faculty of Sport Sciences, Department of Coach Training in Sports)

Background and purpose: The International Amateur Athletic Federation (IAAF) promote a concept of children's athletics competition, which could be used also by physical education teachers during their lessons. This approach keeps a large number of children physically active at the same time by playing the athletics. Hence, this study aimed to investigate the effects of 4-week IAAF Kids' Athletics practice (KAP) on some bio-motoric properties in children.

Methods:The study was conducted on 20 boys and 16 girls (8-9 years) who were in the third grade of primary school in Eskişehir, Turkey. The study was approved by local Ethics committee and required permissions were obtained from National Ministry of Education. The volunteers exercised the KAP within the scope of Physical Education and Game lesson (2 x 40 min) for 4 weeks, two days per week. The KAP (Formula one, sprint/hurdles shuttle relay, forward squat jumps and overhead backward throwing), involved straight running, running with changing direction, rolling movement, hurdling, jumping and throwing. Pre-test and post-test measurements were done for counter movement jump (CMJ), agility, and 30 m speed. Data were analyzed with t-tests and significance was accepted as $p < 0.05$.

Results: Following the 4-week KAP, the CMJ (Pre: 16.04 ± 3.33 cm; Post: 18.46 ± 2.90 cm), and the 30m speed (Pre: 6.94 ± 0.61 sec; Post: 6.74 ± 0.57 sec) significantly increased only in girls. The agility significantly improved in both boys and girls (Pre: 23.57 ± 2.17 sec and 24.60 ± 1.67 sec; Post: 22.98 ± 2.16 sec and 23.60 ± 1.27 sec, respectively). Significant difference between boys and girls was observed for CMJ.

Conclusions and implications:It have been observed that games structured according to the purpose have positive effects on the strength and agility properties of children. Kids' athletics practices can be used as a tool to increase physical activity and improve physical fitness in children at primary level.

Effects of a curriculum-based Physical education intervention (PE) on motor competence in Spanish secondary students with Attention Deficit/Hyperactivity Disorder (ADHD) and Typical Development (TD).

Dr. MIGUEL VILLA (University Complutense of Madrid. Physical Education Area. Faculty of Education)

Background: Previous research has highlighted the significant number of secondary students with ADHD who have problems of motor competence or performance (Visser et al., 2020). Additionally, low levels of motor competence among secondary students with ADHD, might negatively influence students' motivation to achieve and persist in PE classes (Wilmot & Purcell, 2020).

Purpose: This study examined the effect of a 12-week curriculum-based PE intervention on motor competence in Spanish secondary students with ADHD and TD.

Methods: the sample consisted of two groups of students: group 1: 13 students with ADHD (9 boys and 4 girls, aged 15 years old) and group 2: 13 students with TD (9 boys and 4 girls, aged 15 years old). The 12-week curriculum-based PE intervention, consisted of different curricular contents based on sports and physical fitness (e.g., basketball, badminton, acrosport or running). Before (pre-test) and after (pos-test) the 12-week curriculum-based PE intervention, students' motor competence was assessed using The Movement Assessment Battery for Children- Spanish Second Edition (MABC-2) test (Ruiz & Graupera, 2005).

Results: students with ADHD and TD showed a big individual differences on all motor skill areas and on overall percentile scores, before (pre-test) and after (pos-test) 12 week curriculum-based PE intervention. Nevertheless, the post-test results showed an increase of motor competence in both groups.

Conclusions: This study provides evidence demonstrating that PE could be an excellent way to improve the motor competence and the academic performance in PE classes among secondary students with ADHD and TD.

EFFECTS OF ASSESSMENT FOR LEARNING IN PHYSICAL EDUCATION: A CLUSTER RANDOMIZED CONTROLLED TRIAL

Mr. HALIL EMRE ÇINARGÜR (Pamukkale University), Dr. Gokce Erturan (Pamukkale University)

Introduction: In the literature, there is no mixed-method experimental study on assessment for learning (AfL) in the context of physical education (PE). The first aim was to examine the effects of AfL practices on students' self-determined motivation and self-regulation in PE. The second aim was to understand the teachers' experiences integrating AfL into PE.

Method: Three 9th grade classes ($X_{age}=14,24$ years, 17 males, 8 females) in the same high school were randomly assigned to a control arm (two classes) or AfL intervention arms (two classes). PE teacher had received 24-hour training about AfL practices from researchers before the intervention started. The intervention lasted for nine weeks. In the first two weeks skill tests (no significant difference between groups), Behavioural Regulation in Sport Questionnaire, Motivated Strategies for Learning Questionnaire were applied to both groups. From the third to eighth weeks, the same lesson plans were conducted by the same teacher in the gym in both groups. While AfL principles were applied in the intervention group, summative assessments were done in the control group. In the ninth week, post-tests were collected from students and a semi-structured interview was conducted with the teacher to examine her experiences on applying AfL in PE. 2x2 factorial ANOVA and content analysis were used to analyze the data.

Results: No statistically significant difference was found in students' self-regulation between groups. AfL in PE provided a learning environment that enables students' intrinsic motivation increased ($p=0.042$), yet extrinsic motivation ($p=0.045$), and amotivation decreased ($p=0.042$). Conversely, summative assessment practices caused students' intrinsic motivation to decrease, extrinsic motivation and amotivation increased. Content analysis revealed three themes 1)Teacher education; 2)Lesson design/redesign 3)Effects of students' improvement on teacher motivation.

Recommendation: Considering qualitative and quantitative results obtained from teacher and students, teachers were recommended to integrate AfL into PE to foster students' self-determined motivation.

Effet de la massothérapie sur le stress, la prévalence des points de déclenchement et de l'intensité de la douleur lors des examens des étudiants de premier cycle

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Des niveaux de stress élevés lors des examens académiques peuvent exacerber la prévalence des points de déclenchement et de la gravité de la douleur. Par conséquent, il semble nécessaire d'utiliser des techniques préventives et d'adaptation telles que la massothérapie pendant cette période. Le but de cette étude était d'étudier l'effet de la massothérapie sur le stress, sur la prévalence des points de déclenchement et sur la suite de la douleur lors des examens des étudiants de premier cycle de l'Université Shahid Bahonar de Kerman en Iran. 13 étudiants (âge $20,7 \pm 1,2$ ans; poids $75,8 \text{ kg} \pm 20,2 \text{ kg}$, taille $174,1 \pm 6,2 \text{ cm}$) avec des points de déclenchement de la douleur dans les trois muscles (levator scapulaire, sternocléidomastoïdien et trapèze) ont été sélectionnés. Le protocole de 12 séances de massages reposant sur les quatre techniques de massage (post relaxation isométrique, friction, fibre circulaire ou croisée, effleurage et pétrissage) lors de la période d'examen final a été réalisé. Les mesures ont été enregistrées lors du pré-test et du post-test. Le stress perçu a été mesuré avec le questionnaire PASS-14 (Cohen, 1983); les points de déclenchement de la douleur ont été mesurés par l'examineur, l'évaluation de la douleur a été analysée avec l'échelle NRS en 10 points. Le test de Wilcoxon n'a montré aucune différence significative entre le pré-test et le post-test en termes de stress perçu et en termes de point de déclenchement actif de la douleur. Mais les résultats ont montré des différences significatives sur les points de déclenchement cachés ($6,5 \pm 2,7$ versus $1,8 \pm 1,2$), les maux de tête ($3,8 \pm 2,8$ contre $2,7 \pm 1,9$) et les douleurs au cou ($2,9 \pm 2,4$ contre $1,3 \pm 1,5$). Il est recommandé d'utiliser le massage pour améliorer la qualité de l'éducation des étudiants, en particulier lors de l'examen.

Engaging stakeholders and transforming Physical Education

Dr. LAURA ALFREY (Monash University), Dr. Justen O'Connor (Monash University)

This paper presents a counter-narrative to the long-held belief that Physical Education (PE) is impermeable to change (Stolz & Kirk, 2015). Transforming and enacting school curriculum is incredibly challenging and sometimes impossible, but if teachers have particular resources available to them over time, this makes “radical reform more, rather than less likely” (Kirk, 2010, p.141). This paper adds nuance and detail to existing scholarship related to the stakeholders and resources that make curriculum transformation and enactment possible. We do so with reference to interview data, observations and field notes from an exemplary case study that involved Secondary PE teachers from one Australian Secondary school engaging in a process of curriculum transformation and enactment over the course of two years. We, the researchers, adopted a contextualised (Braun et al., 2011) and relational approach (Hickey et al., 2021) to supporting and exploring the school-based reform. The findings suggest that it was the interplay of stakeholders and resources across the situated (e.g. community), material (e.g. timetabling), professional (e.g. values), and external (e.g. researchers) contextual dimensions that supported the process of curriculum transformation and enactment in the case-study school. More specifically, the teachers identified the most valuable resources as being: i) structural and networked support from stakeholders; ii) sustained leadership; iii) a clear vision; iv) professional learning; and v) time. The findings suggest that sustained access to these stakeholders and resources enabled the teachers to transform their curriculum, and in some cases their philosophies and practices, over a two year period. In time we will know more about whether the innovations enmeshed within the curriculum transformation have been institutionalised, and also how the students experienced the ‘pedagogical work’ enacted in the name of the new curriculum. For now, however, the findings from this research can inform and support future attempts at school-based curriculum transformation.

Engaging students in active learning: student teachers' perceptions regarding PE teacher training in handball

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Dr. Paula Batista (Faculty of Sports of the University of Porto)*

The current teacher education programmes are now facing the need for a new conceptualization and reconfiguration, due to the appearance of new approaches in which students are the centre of the process - means to provide them with the opportunity to construct their knowledge (Batista, 2019).

This study describes a pedagogical experience in the context of teacher training in Physical Education in the teaching of Specific Handball Didactics and aims to capture the students' opinion about the experience in terms of teaching methodology (in-person *versus* remote teaching on digital platforms), difficulties and acquired knowledge.

Flipped learning and collaborative work was the methodological approach. In terms of handball, game-based approaches were used.

Videos and educational tools were used for collaborative and reflective work (google classroom, moodle and padlet). Twenty-five students and one university teacher participated.

Data collection was done through a questionnaire (10 questions, three open-ended, five closed-ended and two with a 6-point Likert scale) made available on *Google Forms* and daily reflections (written on the padlet tool - learning diary) about the major class themes, perceived individual learning and difficulties/challenges. The absolute and relative (percentage) frequency was used to analyse the data obtained from the questionnaire and thematic analysis was used to explore the content from the open-ended questions and set of texts from the learning diaries.

The data revealed that the students valued the methodology, considering that, adding to the technical-tactical content, they learned to mobilize the pedagogical content and knowledge for teaching the game through understanding and acting with tactical intentionality. Changing to online teaching, making the practical component impossible, impoverished the process. In contrast, it allowed reaching higher levels of understanding of game problems.

Ethical implications of the educational assistant role in physical education

Dr. Hayley Morrison (University of Alberta)

Educational assistants (EAs), individuals who provide one-on-one or classroom support for students with disabilities, are essential supports for inclusion in schools. But, in physical education (PE), their roles are vague and superficial. It is known that EAs can have both positive and negative contributions to the PE environment towards inclusion depending upon their knowledge, engagement, collaboration, and attitude. However, there is limited research that evaluates the ethical implications of EAs' contributions and roles in PE. The following study is a qualitative meta-synthesis (Williams & Shaw, 2016), which provides new theoretical and practical interpretations of the findings from selected articles. A comprehensive literature search and review was completed of 7 databases for qualitative studies examining "EA roles in PE". In total 146 abstracts were screened, 42 read in full and 4 studies were selected for extraction based on adherence to inclusion criteria. Following an inductive thematic analysis of the findings, a deductive analysis was conducted using a relational ethics framework (Bergum & Dossetor, 2005). The theoretical framework provided a lens of interpretation in order to better understand the individual narratives more broadly, and to inform ethical practices for EAs in PE. The findings reveal ethical issues of student identity and voice, power, and the socio-spatial environment of PE; these are discussed in terms of the core themes of mutual respect; engaged interactions; embodiment, and; an interdependent environment. PE is a pedagogical space where ethical issues should be brought to light and educated on. Therefore, this presentation: (a) outlines theoretical and practical suggestions to be employed in PE to enable ethical, inclusive and meaningful educational experiences for students with disabilities, (b) enlightens real-life scenarios to deliberate ethical dilemmas and responsibilities, and (c) discusses the complex layers that exist for EAs' roles in PE.

Experience?! On filling the gap between practice and theory in PETE

Prof. Sebastian Ruin (University of Graz), Dr. STEFAN MEIER (University of Vienna)

The complex relation between pedagogical practice and theoretical considerations on education has been part of pedagogical discussion since pedagogy exists. Concerning contemporary PE, this is crucial for instance in the critical discussion on models-based practice (e.g. Casey et al., 2020). Looking on PETE though, it is our impression, that there is a tendency towards a gap between two approaches which we call – in a deliberately provocative manner – ‘blind practice’ and ‘empty theory’. On the one hand scholars highlight the transfer of knowledge relating to educational and sport scientific theories and more or less evidence-based teaching methods. Simultaneously, a sport and movement related practitioner approach can be observed on the other hand which is likely to renounce theoretical considerations. Such a dual approach risks to fall short since PETE-students might tend to the one or the other side without linking theory and practice in a profound manner.

To fill this gap, we propose to emphasize on experience as a sound pedagogical category (e.g. Dewey, 1999). Within experience as an active process the individual can discover the subjective link between theoretical considerations and pedagogical practice. This seems even more important since in PE practitioners deal with two kinds of practice (pedagogical practice and sport and movement practice). Against this backdrop, we rethink practice and theory within PETE. Based on a deeper understanding of experience in (sport-)pedagogical contexts (e.g. Prohl, 2010), we aim on framing theory and practice in a more interlinked and holistic way. With the intention of moving forward, we propose an experience-based framework of PETE for the German-Speaking world, which might – in our point of view – meaningfully be connected to and discussed within the international audience.

Exploring The Notion of Literacy within Physical Literacy: A Discussion Paper

Dr. DR. LIZ DURDEN-MYERS (Bath Spa University | The University of Gloucestershire), Mrs. Gillian Bartle (University of Stirling | University of Dundee), Dr. Karamjeet Dhillon (Social Research, Boost Innovations, Windsor, ON, Canada.), Dr. DR. MARGARET WHITEHEAD (The University of Bedfordshire)

Abstract

Background: The concept of physical literacy is continuing to gain traction internationally. This increasing interest has also given rise to concerns about the use, interpretation and meaning of the term 'literacy' within the context of physical literacy. This paper explores the development of the terms literate, illiterate, literacy and illiteracy identifying their historical origin and contemporary meaning. This discussion provides the backdrop to explore the use of the term literacy within the context of physical literacy. In the final part of this section the recent popularity of the literacies movement is discussed.

Discussion: The majority of the discussion section of the paper centres around key areas of tension associated with the use, interpretation and meaning of literacy in the context of physical literacy. Including but not limited to the contemporary and historical interpretations of literacy, the in/tangibility of literacy, literacy as a process or product of education, and whether it is possible to be literate and therefore illiterate within the context of physical literacy.

Conclusion: In summary, the paper concludes by articulating why literacy within the context of physical literacy is the appropriate term when understood as productive and meaningful interaction with the world.

Key Words: Literacy, literate, illiterate, illiteracy, productive interaction, intentionality, embodiment, physical activity, physical literacy, wellbeing, flourishing.

Feasibility of Visual Feedback in Physical Education

Mr. Moritz Mödinger (Karlsruhe Institute of Technology), Prof. Alexander Woll (Karlsruhe Institute of Technology), Prof. Ingo Wagner (Karlsruhe Institute of Technology)

Background

With the dawn of the digital age in the early 1990s, digitalization has increasingly found its way into all areas of life. In the course of the last decade, this accelerating development has also reached the education sector, with far-reaching consequences for teaching and learning.

Digitalization also opens up new possibilities for Physical Education, both in terms of content and methodology. While visual feedback by means of video analysis used to be applied more in professional or semi-professional sports (Baudry, et al., 2006; Ste-Marie, et al., 2011), mobile devices make this possible for other target groups as well, in a far less time- and resource-intensive way.

The question arises whether the application of visual feedback using video analysis is associated with better movement execution. Initial indications of this can be found in Boyce, et al. (1996), Palao, et al. (2015) and Potdevin, et al. (2018), among others.

Methods

To conduct a systematic review (Moher, et al., 2009), a literature search took place in various databases (ERIC, SCOPUS, Web of Science Core Collection, and Medline). 2030 references were identified, analyzed quantitatively and qualitatively, with a final inclusion of eleven studies.

Results

Results suggest a general suitability of visual feedback for Physical Education. Furthermore, research results indicate that expert modeling could be more effective than self-modeling. In this context, both feedback variants could be superior to verbal feedback alone.

Discussion

Based on the results, it seems to be important for the use of visual feedback in Physical Education to give more consideration to the framework conditions of Physical Education, in addition to methodological decisions. This requires concepts to further develop Physical Education in the future under the influence of digitalization.

279 words

keywords:

Physical Education, visual feedback, video analysis, motor learning

From Surviving to Thriving; Trajectories of Resilience in University Inductees Following Outdoor Adventure (OA) Residential Programmes

Dr. DR. JOHN ALLAN (Leeds Beckett University), Prof. JAMES MCKENNA (Leeds Beckett University)

Background: Even before COVID-19, university inductees were vulnerable to transitional stressors which impact upon their psychological well-being and ability to complete their studies. Resilience may be analogous to holding the functioning that supports higher-level academic performance in twenty-first century Higher Education (HE). Given the significant investment HE requires, universities may be expected to promote psychological resilience in new students to help them persevere across the academic lifecycle. Linking HE to resilience, Outdoor Adventure (OA) residential programmes have enabled inductees to build the trajectories of resilience development (i.e. increased self-perception, interpersonal relationships) that heighten academic performance. Nonetheless, few longitudinal studies have examined the sustainability of these effects.

Method: Unique to this study, the resilience of 2,500 inductees was profiled across three time-point trajectories; (i) pre-OA programme, (ii) post-OA programme and (iii) three months post-OA programme. Further, the functionality of inductees' longitudinal resilience was evaluated for predicting prospective academic performance at the end of Year 1.

Results / Conclusion: Resilience derived from OA programming constituted a healthy, longitudinal trajectory of productive functioning. Over two thirds of students increased, retained or incurred only a small deficit in resilience at follow-up. Crucially, inductees who began OA programmes with the lowest resilience made a significant 'moderate' effect size gain (.40) after three months. Higher follow-up and sustained resilience were associated with better prospective academic outcomes. Findings suggest OA supports developing the adaptive skills which enable inductees to make successful lasting transitions.

Keywords

University inductees, psychological resilience, academic performance, outdoor adventure intervention programmes, robust longitudinal empirical design, adaptable productive functioning

Future Considerations on The Spectrum

Dr. Brendan SueSee (University of Southern Queensland), Dr. Shane Pill (Flinders)

Whilst The Spectrum of Teaching Styles has been around for over 55 years (and contributed much to Physical Education Pedagogy) there is still potential for more work to be done with regards to research. This presentation will briefly outline six areas where questions remain unanswered and are ripe for the picking in terms of research. We believe that research in these areas will provide opportunities to contribute to other areas (Sport, teaching in general as opposed to PE specifically) and demonstrate to the field of education what The Spectrum can achieve in terms of pre-service teacher knowledge, development and skills, teacher development and coaching development. The diagram of The Spectrum focusses on the teacher chain of decision making. We propose a model that continues to emphasise the learner at the centre of the model. We suggest that the following areas need further development through research:

The Spectrum and sports coaching,

The Spectrum Inventory (SueSee, 2012) – Validity, potential use with teaching and coaching style,

Future research achieves validity and reliability (Chatoupis, 2010),

Development of legitimate and dependable observational methods that conform to The Spectrum,

Using The Spectrum outside of PE,

Canopy Designs (Hewitt et al., 2017) – Frequency of use and effects of use and,

Validating the effects of Production cluster styles.

Chatoupis, C. (2010). Spectrum research reconsidered. *International Journal of Applied Sports Sciences*, 22(1), 80–86.

Hewitt, Mitchell and Edwards, Ken and Ashworth, Sarah and Pill, Shane (2016) Investigating the teaching styles of tennis coaches using The Spectrum. *Sport Science Review*, 25 (5-6). pp. 321-344.

SueSee, Brendan (2012) *Incongruence between self-reported and observed senior physical education teaching styles : an analysis using Mosston and Ashworth's spectrum*. PhD thesis, Queensland University of Technology.

Girls, health and physical activity: Tensions between Physical Education and Instagram as gendered fields

*Dr. MARIA JOSÉ CAMACHO-MIÑANO (University Complutense of Madrid), Dr. DR. SHIRLEY GRAY (University of Edinburgh),
Dr. DR. RACHEL SANDFORD (Loughborough), Dr. DR. SARAH MACISAAC (University of Edinburgh)*

Drawing on the conceptual frameworks of Bourdieu and postfeminism, this presentation analyses tensions between young women's gendered habitus and the health-related learning spaces of Physical Education (PE) and Instagram. We draw on participatory research with thirty-seven young women (aged 15-17) from three secondary schools in Spain who self-defined as physically active and engaging with exercise content on Instagram. Data obtained through focus groups and semi-structured interviews reveal how these young women's subjectivities are formed through negotiating the gender 'rules of the game' within these key pedagogical fields. Notably, most participants were critical of their learning in PE, which mainly remains a traditional masculine field. By contrast, they valued Instagram as an engaging space in which to learn about fitness to transform their bodies toward the feminine ideal. This involved a constant process of self-optimization, including the development of the 'right' mental dispositions, fitting strongly with their gendered habitus. Within this paper, we have developed the concept of 'postfeminist habitus' to explain the participants' engagements with health-related content on Instagram, which through language of choice and empowerment disciplined the young women to achieve the normative body as a marker of success. We argue that both spaces, PE and Instagram, are forms of symbolic violence that reproduce the gender order which sustain the subordination of young women not only in PE but also in society, as learnings on social media nurture a postfeminist habitus whose aspiration for the perfect body sustain the submission of women within the patriarchy. We conclude by suggesting changes that might make PE a more meaningful and hybrid learning space for young women, intertwined with the broader physical culture that circulates in digitalized spaces.

How do we finish the semester? Multi-system view – Decisions from top-down to bottom-up

Prof. Sima Zach (The Academic College at Wingate), Prof. Ronnie Lidor (The Academic College at Wingate)

The outbreak of the COVID-19 pandemic in the winter of 2020 led to emergency decisions and regulations in the top-down approach of the transitional government in Israel and the Council for Higher Education. In addition, the Ministry of Education issued mandatory guidelines for immediate implementation of distance learning throughout the educational system. This study examined the assimilation patterns of these guidelines in undergraduate curricula taught during the second semester of 2020 at the five academic colleges of education in Israel that prepare students for teaching physical education (PE). As in the entire higher education system, the courses taught in these programs required lecturers to adopt online distance teaching, both in the field and in the courses in which motor skills are taught. We examined perceptions of all the partners in the system – from the decision makers in the Ministry of Education to the academic staff and decision makers in the colleges, concerning the implementation of the distance learning and its attributes.

The presentation will focus on two groups of decision makers: (a) the leading staff in the Ministry of Education responsible for the academic colleges of education, and (b) the five Presidents of the academic colleges of education in which PE teaching programs are taught. In-depth interviews were conducted via the Zoom application with all the participants. Results show both the similarities and differences among each group of decision makers. The discussion focuses on aspects related to decision making under crisis, and to the curricula in teaching PE during the COVID-19 crisis. In addition, decision makers asserted that their insights were used as a platform for planning their strategy for the continuation of the crisis period in the following school year.

How instructional communication is linked to empowering and disempowering motivational strategies in physical education (PE)?

*Prof. Jean-François Desbiens (Université de Sherbrooke), Prof. STÉPHANIE GIRARD (Université du Québec à Trois-Rivières),
Ms. AUDREY-ANNE DE GUISE (Université du Québec)*

In a research-action project intended to accompany PE teachers in the implementation of strategies supported by scientific literature to sustain students' motivation in PE, important variations in the time allocated to the different phases of the PE lesson were noticed among the participants of both experimental (n = 6) and control group (n = 5). It was then hypothesized that deficiencies in instructional communication (IC) could partly explain these variations. It was also hypothesized that IC is associated with the motivational climate (MC) in PE. An investigation was initiated in order to explore these two hypothesis. Data were collected using two video observation systems. The first one consisted of 33 empowering motivational strategies and 13 disempowering ones inspired by previous observation grids. The second one consisted of a 20 IC acts distributed among four phases. Spearman correlations were computed after descriptive analysis were conducted. The Fisher exact test was used to check for significant associations between IC and MC. Results show that ineffective IC is significantly and positively associated to integration and gap management time and to the number of episodes of gap management and realization phases, while effective IC is significantly and positively associated to an empowering preparation phase. The results also show that IC is positively associated to MC ($p = ,0075$). More precisely, effective IC was positively associated with dimensions of an empowering MC, while ineffective IC was either negatively related to dimensions of an empowering MC and positively associated with dimensions of a disempowering MC. The quality of IC during all phases should be more carefully studied, given its association with MCs' dimensions of autonomy, structure, and relatedness. Further research is needed to better understand how teacher training can promote empowering strategies through effective IC.

How Physical Education Class Copes with The New Era

Prof. TANDIYO RAHAYU (Universitas Negeri Semarang), Mr. BILLY CASTYANA (Universitas Negeri Semarang), Mr. MOHAMMAD ARIF ALI (Universitas Negeri Semarang), Ms. GUSTIANA MEGA ANGGITA (Universitas Negeri Semarang)

Physical Education is a subject that has been established for years with the implementation of a conventional learning approach, where teacher and student interactions are only done face-to-face. But today, this subject is one of the most difficult to adjust to when the Covid-19 pandemic hits the world and all lessons in schools are held online.

The study, which was carried out during the years of 2019-2020 before the Covid-19 pandemic, tried to provide three types of Physical Education learning processes by utilizing online media. The first type, the teacher, makes a video as a learning media and uploads it in the offline-online application to learn the movement by themselves before the D-day class. In the second type, students create a video of the assigned activity and upload it online, then they will do a peer analysis, and the teacher gives feedback. In third type, the teacher provides videos featuring professional athletes and asks them to analyse, learn, and practice the movement. 681 students from 9 high schools in Semarang City, Indonesia involved in the trial of those three types of learning approach in Physical Education class.

The results showed that 89% of the participants stated all types of learning could be applied in Physical Education class. These research results are beneficial for future physical education classes, where physical contact during class must be limited.

Improving children's fundamental movement skills through a family-based intervention: Results from the Active 1+FUN trial

Dr. DR. JOHAN NG (The Chinese University of Hong Kong), Prof. AMY HA (The Chinese University of Hong Kong), Prof. DAVID LUBANS (The University of Newcastle), Prof. CHRIS LONSDALE (Australian Catholic University), Dr. Fei Yin Florrie Ng (The Chinese University of Hong Kong)

Proficiency in fundamental movement skills is related to beneficial health outcomes, including higher levels of physical activity. Many children acquire these skills exclusively from school physical education. Without further out-of-class support, children's learning in these skills may be intermittent and inefficient. To this end, we designed a family-based intervention, the Active 1+FUN program, to promote co-physical activity and provide parents with knowledge on fundamental movement skills. The effectiveness of the trial was evaluated using a randomized controlled trial. Participants were 171 families (at least one child and one parent) from Hong Kong. Participating children had a mean age of 10.0 years, while 40% of them were girls. Children's fundamental movement skills, including overhead throw, forehand strike, catch, and kick, were measured at baseline using the Test of Gross Motor Development (version 3). Families were then randomized into either the experimental or control group. Experimental group families received ten intervention sessions, each consisted of a 30-minute knowledge-based workshop and an hour-long activity session related to fundamental movement skills. Fundamental movement skills of children were measured again at the end of intervention (T2) and 12 months after baseline (T3). In terms of fundamental movement skills proficiency, results from hierarchical linear modeling suggested there was a significant Time*Group effect in favor of the experimental group from baseline to T2 ($B = .52, p = .02$), and from baseline to T3 ($B = .24, p = .05$). The results suggest that parents' involvement may provide additional support to children's motor skill development. Engagement in co-physical activity may also have additional benefits such as improved parent-child relationships. More broadly, findings from this study highlight the importance of empowering parents to support their children's physical literacy journey.

Inclusive school sport events in addition to regular physical education in Austria

Dr. CHRISTOPH KREINBUCHER-BEKERLE (University of Graz)

Competitive school sport events play an important part in addition to regular PE. In the German-speaking world, they have a long tradition called “*federal youth games*” or “*youth trains for the (para)olympics*”. With the Convention on the Rights of Persons with Disabilities (CRPD) the number of students with disabilities in mainstream classes rose and inclusive PE is broadly researched in the field of adapted physical education. Beyond that, little is known about extracurricular inclusive school sport events for students with and without disabilities like events with play and competitive elements. Therefore, an overview is given about the situation regarding those events in Austria.

For a first overview, inclusive school sport events were tracked back to the start in 2004. In addition, six experienced PE-teachers and three supporters were interviewed about the current situation and their perception of these events. Their age ranged from 35 to 71 years ($M = 52.75$; $SD = 11.84$) with working experience between of more than 20 years ($M = 20.40$; $SD = 14.12$). In average they took part in more than ten inclusive school sport events ($M = 12.5$; $SD = 9.76$) and can therefore give a deep insight into the topic.

In the last 15 years, 165 inclusive school sport events with almost 15.000 students were held, a third of them with an intellectual disability. The PE-teachers and supporters highlighted topics like relevance, development, feedback from students and teachers as well as potential barriers.

The results indicate, that inclusive school sport events are of high importance and a meaningful extension to regular physical education. Nevertheless, they seem to be excluded and reserved for inclusive classes and not part of other school sport events. In a further step, students with and without disabilities should give their evaluation about the development of inclusive school sport events.

Individual constructions of barriers to participate in integrated PE among learners with VI in Germany

*Prof. MARTIN GIESE (Heidelberg University of Education), Prof. JUSTIN HAEGELE (Old Dominion University),
Prof. Sebastian Ruin (University of Graz)*

With a growing interest in sport, fitness, and a healthy lifestyle, bodily practices are increasingly important in our society. In school contexts, physical education (PE) is the subject where these practices play a central role. But, discourse in the German language shows in an exemplary manner that inherent body-related social norms and requirements are articulated in didactic concepts and curricular requirements, and that these norms and requirements have exclusionary potential for those students who do not fit notions of idealized bodies. Against this background and in the context of a strong tradition of segregated education in Germany, this presentation seeks to understand children with visual impairments' (CWVI's) individual constructions of integrated PE, and their subsequent decision to elect for PE at a special school, in Germany.

Six female and four male students, who were schooled in integrated contexts and then decided to join a special school for their upper Gymnasium (grammar school) classes completed interviews for this study. Based on the findings, all students had extensive experiences with exclusion in integrated PE. These aspects were especially important in connection to the body, when the general wish to learn and experience with the body seemed to be disturbed by norms– like doing certain movements in a pre-defined way – which lead to existential challenges for the CWVI. Interestingly, the relationship between blind and visually impaired students in PE seems ambivalent. That is, within this special school setting, social groups were constructed based on perceptions of „handicapped” versus „nonhandicapped” among students, which created a social sub-segregation at the blind and visually impaired school. Among the conclusions that can be derived from this study, it appears necessary to take a closer look at the excluding potential of PE from the perspective of marginalized groups in order to enhance the inclusiveness of integrated PE.

Investigating Primary Teachers' Lived Experiences of Physical Education Assessment Through Phenomenology

Mr. YOUNGJOON KIM (Seoul Misung Elementary School), Dr. OKSEON LEE (Seoul National University)

Background: Assessment in physical education (PE) is a complex pedagogical work that is strongly influenced by primary teachers. Little academic attention has been paid to primary teacher's past and current experiences of PE assessment.

Purpose: The purpose of this study is to explore phenomenological meanings of PE assessment through primary teachers' lived experiences of being assessed as PE students in the past and of assessing as primary PE teachers in the present. The research questions are: 'what is it like to be assessed as PE students?', and 'what is it like to be assessing as primary PE teachers?'

Methods: 'Phenomenology of practice' (van Manen 2016b) was applied. Five primary teachers were selected, and data were collected by semi-structured interviews and the lived experiential writings. The data were analysed in two steps: 'life-world existentials' including lived body, -space, -time, and -relation as well as 'thematic analysis'.

Findings: First, the participants' past lived experiences of being assessed as PE students were investigated as (a) trembling body, (b) stage forcing bodily monologue, (c) in the twinkling of an eye, and (d) Big Brother is watching me. Second, the participants' current lived experiences of assessing as primary PE teachers were investigated as (a) cloning past PE teacher's body, (b) shift from joyful playground to rigid court, (c) incompatible time like oil and water, and (d) compassionate encounters.

Discussion: The phenomenological meaning of primary teachers' lived experiences of being assessed as PE students was identified as 'sidelining their own bodies and learning', and those of assessing as primary PE teachers was identified as 'groping in the dark while flashing back to the past'.

Conclusions: From a phenomenological perspective, primary PE assessment turned out nuanced and complex practices, and the teachers were agents for moving PE assessment forward dialectically in the continua of past-present and theory-practice.

Is it really out of reach or should we try harder? Unpacking scaffolding in practice as a foundational pedagogical tool for sports educators

Dr. DR. Cláudio Farias (Faculty of Sport, University of Porto, Porto, Portugal)

One of the main hindrances to the re(in)novation of teaching/coaching practices through the implementation of student/athlete-centred teaching models and approaches stems from the inability of sports educators to deal with the pedagogical requirements inherent in the effective performance of the role of facilitator. In addition to the conceptual inner struggle experienced by sports educators during their initial departure from traditional ways of teaching/coaching, they experience considerable challenges while attempting to transfer responsibility to sports learners while simultaneously attaining the integrated achievement of motor, social, and personal development goals. In this matter, although still insufficiently theorized in the field of sport pedagogy, the ‘scaffolding’ metaphor is a pedagogical tool inextricably embodied in the sport educator-facilitator role. Therefore, we will unpack the different practical applications of scaffolding, showing how such theoretical concepts can be easily expressed by sports educators in their daily practice. Firstly, we address the structural components of scaffolding (diagnosis, contingency, responsibility). Then, we exemplify some general principles and applications of scaffolding. Here we highlight the interdependent relationship between the gradual increase in cognitive, social and personal engagement of sports learners in the learning process and the sustained sport educator-sport learner transfer of responsibility. Next, we clarify the connection between sport-educators’ conceptual perspectives and scaffolding, presenting a continuum of scaffolding strategies. Different operational strategies will be suggested which intrinsically assert more explicit, or more implicit approaches to teaching and learning of sport, games and physical activity. Finally, we explore how sport educators can cater for the variability and adaptability of scaffolding in light of the context of its application.

Is physical literacy of 9-10-year-old Lithuanian schoolchildren of sufficient level?

Dr. Rita Gruodyte-Raciene (Lithuanian Sports University), Ms. Monika Sirkaite (Lithuanian Sports University)

Being physically literate means to value and take responsibility in physically active lifestyle choices. **The aim** of this study is to assess if the level of physical literacy (PL) domains such as daily behavior (physical activity), physical competence (fitness), motivation and confidence, as well as knowledge and understanding of 9-10-year-old boys and girls in one of the schools of second biggest city of Lithuania is of sufficient level.

In total, four different classes of the 3rd grade at the same school were recruited. The participating children (n=93, of them girls n=33) had two weekly Physical Education (PE) lessons regularly, taught by their respective General teachers. They all shared the same sport facilities and equipment. Participants mean (\pm SD) body mass index was 18.5 (\pm 4.2) kg/m², and the score of leisure time PA was 25.6 (\pm 4.7) points (of max. 35, NPAQ). Physical Fitness Test Battery for Children (Fjørtoft et al., 2011) was used to evaluate health-related physical fitness. To exam whether physical competence results of boys and girls met minimal, average or maximal level, the Reference scales of Lithuanian schoolchildren (Česnaitienė et al., 2016) were advised. Four categories (i.e. Beginning, Progressing, Achieving or Excelling) were attributed to PL domains such as Motivation & Confidence and Knowledge & Understanding following the recommendations of The Canadian Assessment of Physical Literacy (CAPL). All measurements and surveys were conducted by the same Principal Investigator and completed in November 2019.

The findings of this cross-sectional pilot study indicate that although PA and health-related physical fitness for most of the participating 3rd grade schoolchildren were of average or higher level, the vast majority of participants have reached only a Beginning or Progressing stage in such PL domains as Motivation & Confidence and Knowledge & Understanding. Significant differences ($p < 0.05$) comparing by class/General teacher were also revealed.

Knowing, being, doing and valuing First Nations Peoples in teacher education: A participatory activist approach by non-Indigenous HPE teacher educators

Dr. :) *lisahunter(they/them/their/it)* (Monash University), Dr. DR. KAREN LAMBERT (Monash University), Dr. LAURA ALFREY (Monash University), Dr. DR. JUSTEN O'CONNOR (Monash University), Prof. RICHARD PRINGLE (Monash University), Dr. DR. RUTH JEANES (Monash University)

Six higher education educators teaching in a HPE specialisation degree for preservice teacher education (HPETE) in Australia identified a desire for understanding and respecting Aboriginal and Torres Strait Islander people to promote reconciliation between Aboriginal and Torres Strait Islander and non-Indigenous Australians in their teacher education units. This paper, drawing on participatory activist research with narrative inquiry and reflexivity for the first participatory cycle, reports the outcomes of the Reconnaissance, Plan, Act and Reflect phases. Adopting Veronica Arbon's (2008) guidance of knowing, being and doing for decolonising tertiary education we explore a framework for beginning such work all the while addressing issues of white fragility, racism, symbolic violence, emotional load, strengths-based action and ultimately the (im)possibilities of decolonisation and (re)conciliation. Given our remit is to go well beyond 'understanding and respect' for preservice teacher graduate attributes we also address aspirational goals of our education system and how that plays out in our bodies. This session will be of interest to those grappling with embodying anti-racist practices and teaching for diversity, inclusion and equity in HPETE.

Les qualités métriques de la mesure des croyances irrationnelles, de l'expérience du flow et de l'estime de soi : recension des écrits

Mrs. Niloufar Asiachi (IRANIAN Taekwondo Federation), Prof. JAOUAD ALEM (Université Laurentienne)

L'objectif de cette revue de la littérature est de présenter les qualités métriques de mesure des croyances irrationnelles, de l'expérience de flow et de l'estime de soi chez les athlètes. Le Flow est défini comme "l'état dans lequel les athlètes sont tellement utilisés dans une activité que rien d'autre ne semble avoir d'importance". Les athlètes avec un niveau plus élevé d'estime de soi sont conscients de leurs propres compétences, ils peuvent contrôler leurs pensées, leurs émotions et leur comportement et ne prêtent pas attention aux personnes environnantes. Ces personnes recherchent des expériences positives et de la satisfaction à chaque occasion. Le flow semble résulter de l'interaction d'états internes (les pensées, les émotions, les motivations ..) et de facteurs externes (les conditions environnementales et situationnelles) et de facteurs comportementaux (la formation et la préparation). Dans quelle mesure les croyances irrationnelles sont liées à l'expérience du flux? Quelles croyances irrationnelles ont conduit à une perturbation du flux? La qualité métrique des variables reliées au flux sont présentées et commentées: 1-échelle d'état du flow-2 (FFS-2) (Jackson & Eklund 2008), 2-scale du flow dispositionnel-2 (DFS- 2), 3-l'inventaire des croyances de performance irrationnelle (IPBI) de Turner et al., (2016) et 4- échelle d'estime de soi de Rosenberg (1965). La méthode mixte prévue (pré-test / post-test) sera présentée ainsi que les caractéristiques de la population visée qui comprend tous les athlètes professionnels masculins et féminins de l'Iran. Les participants complètent l'échelle d'état de flux-2 (FFS-2) immédiatement après la compétition. Si le flux du participant est perturbé, nous expérimenterons l'effet du modèle de thérapie comportementale émotionnelle rationnelle de Ellis (1956).

Les savoirs professionnels mobilisés par les professeurs d'EPS algériens en situations d'action

Prof. IDIR ABDENNOUR (Université de Bejaia), Prof. NEGAZ MOHAMED (Université Batna 2), Ms. AZNI SILIA (Université de Bejaia)

L'objet de cette étude est d'identifier et d'analyser les types de savoirs mobilisés par les enseignants algériens d'Éducation Physique et Sportive (EPS) en situations d'action, c'est-à-dire, en pleine situation d'intervention pédagogique. Les démarches méthodologiques suivies sont basées essentiellement sur l'analyse du discours comme technique permettant de questionner ce qu'on fait en parlant, au-delà de ce qu'on dit. Ceci, à travers un guide d'entretien de (type semi-directif). Le cadre proposé par Buisse (2011) a été utilisé pour caractériser les sources de savoirs mobilisés. Un échantillon composé de 57 enseignants dans les trois cycles d'enseignement (éducation nationale) : Primaire, Cycle d'Enseignement Moyen, et enfin le cycle d'enseignement secondaire a été choisi pour les fins de cette étude. Les résultats obtenus indiquent que la mobilisation des savoirs professionnels, dépend presque entièrement des particularités et des exigences des situations d'intervention en classe, mais également, de l'histoire personnelle et professionnelle des enseignants.

L'éducation physique de qualité et sa contribution aux objectifs de développement durable

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Dr. DR. CHRISTOPHE SCHNITZLER (University of Strasbourg - laboratoire E3S (EA 1342))*

Le plan d'action de Kazan identifie des liens entre certains des objectifs du développement durable (ODD) et l'éducation physique (EP). Les liens prioritaires qui sont identifiés sont relatifs à: santé et bien-être (ODD 3), éducation (ODD 4), égalité des sexes (ODD 5), réduction des inégalités (ODD 10), villes durables (ODD 11), consommation et production responsable (ODD 12), lutte contre le changement climatique (ODD13), paix, justice et institutions (ODD 16), partenariats pour la réalisation des objectifs (ODD 17). L'UNESCO met en avant des directives pour promouvoir l'inclusion, le développement physique des élèves ou encore la santé et le bien-être, et insiste sur l'importance de démontrer le lien entre EPS de qualité et poursuite des ODD. Cependant, aucune recherche universitaire n'a, à notre connaissance, cherché à attester de la contribution d'une EPS à la poursuite des ODD. L'objectif de cette étude est donc d'identifier, à l'aide du curriculum formel de l'EP les liens possibles entre la mise en place d'une éducation physique de qualité et la participation aux ODD mis en avant par le plan d'action de Kazan. Nous avons identifié cinq thématiques, relatives à une EP de qualité, qui sont susceptibles de favoriser l'accomplissement des objectifs du développement durable : l'égalité des sexes dans la participation aux activités physiques, l'inclusion au sein de la classe, le bien être subjectif des élèves, la promotion des modes de transports actifs et la gestion des comportements agressifs. Au travers d'analyses systématiques de littérature, nous mettons dans quelle mesure des interventions concrètes d'une éducation physique de qualité permettraient de contribuer à chacune de ces thématiques de manière spécifique. Par ces contributions, l'EP participerait donc à son échelle, à l'accomplissement de certains objectifs du développement durable.

Observing affective learning in physical education: developing effective pedagogical strategies.

Mr. WILLIAM PATZ (University of birmi), Dr. DR. VICTORIA GOODYEAR (University of Birmingham), Dr. DR. MARK GRIFFITHS (University of Birmingham)

Background

Despite ambitions for physical education (PE) to facilitate student growth across the four learning domains of physical, cognitive, social, and affective learning, much of what educators do tends to neglect the affective domain and prioritise physical learning (Casey and Goodyear, 2015). Increased interest in the affective domain has accelerated recently due to raised awareness of mental health issues among young people (Patton et al., 2016). Yet gaps remain in teacher understanding, with recommendations for observational evidence to develop pedagogies that will enrich learning in the affective domain (Teraoka et al., 2020).

Purpose

To examine how student interactions facilitate learning in the affective domain and how teachers may begin to observe specific affective outcomes in PE.

Methods

Sixteen, 60-minute elementary (age 6-7) PE lessons were video-recorded at an international school in Singapore during 2020. Data were analysed using the Practical Epistemological Analysis (PEA) technique to identify indeterminate situations related to the affective domain (Wickman and Östman, 2002).

Results

The analysis of the videos identified three areas that impacted on student affective learning: 1) emotions from competition influence student interactions, 2) morality influences students' attitude towards lessons, and 3) health-based focus influenced how students valued PE and engaged students.

Conclusion

The three indeterminate situations add to emerging frameworks of describing affective learning (Krathwohl et al., 1964; Casey and Fernandez-Rio, 2019). Evidence generated on student interactions provide new understandings that can inform the development of effective pedagogical strategies to support, develop and enhance learning in the affective domain and contribute to a mental health agenda.

PE for what ? A project to make teachers aware of the importance of societal transfer

Prof. MARC CLOES (University of Liège), Ms. COLINE PIRE (University of Liège)

One important role of the school is to prepare the youth to become actors of their life and enlightened citizens. PE is supposed to contribute to such project by equipping youths with knowledge and experiences that they should be able to transfer from the gym to their personal life. Such philosophy is central in the TPSR Model (Hellison, 1995). It lays on an authentic instruction (Newmann & Wehlage, 1993) emphasizing the connectedness of the teaching to the world. Cloes (2017) proposed the concept of societal transfer defined as anything the PE course brings to students that they will be able to use in their daily lives, throughout their lives. Activities proposed during PE lessons are a tool of development and not an end (Siedentop, 2009; Pühse et al., 2010). The diversity of what PE teachers can bring to their students is so great that a categorization could help them to guide their action. In this presentation, we will explain first how we developed such resource. Secondly, we will present what we have done with secondary school PE teachers and PE students in order to draw their attention to what they could implement in their lessons to enlarge the potential transfers between the gym and the life beyond the latter. Using literature, we identified 7 dimensions of societal transfer (Autonomous active lifestyle; Transversal aspects; Health and safety; Psychological aspects; Social aspects; Knowledge of the human body; Motor and sport culture). Eight seminars were organized to share the model with 63 teachers and 15 PE students. They comprised several learning activities (definition, good practices, brainstorming, opinion on the concept, final feedback). Data confirmed the usefulness of the societal transfer dimensions. Subjects considered that the seminar helped them to discover the concept and motivated them to apply the principles in their teaching practice.

PETE Alumni Perspectives of Culturally Responsive Teaching Self-Efficacy

*Dr. DR. SARA FLORY (University of South Florida), Dr. DR. REBECCA WYLIE (University of South Florida),
Mr. Craigory Nieman (University of South Florida)*

The purpose of this study was to examine the culturally responsive teaching self-efficacy of graduates from a Physical Education Teacher Education (PETE) undergraduate program specifically focused on social justice issues.

Culturally responsive teaching (CRT) and teacher self-efficacy were used to frame this study. CRT is a model of teaching that utilizes cultural knowledge, prior experiences, frames of reference, and performance styles of diverse students to make learning encounters more relevant and effective (Gay, 2000). Teacher self-efficacy derives from Bandura's (1977) social cognitive theory and is conceptualized as a teacher's belief in their ability to organize and execute teaching tasks in a particular context.

Recent graduates (from 2013-2019) of a physical education teacher education (PETE) program located in a metropolitan area of the southeastern United States were asked to complete the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE; Siwatu, 2007) via email. This scale contains 40 statements to reflect general teaching practices as well as more culturally sensitive teaching practices. Scores are based on a 100-point Likert scale (0=no confidence at all, 100=completely confident). Of 85 alumni contacted, we received 43 completed surveys, a response rate of 50.6%.

The total CRTSE scores from these participants ranged from 1567 to 4000 ($M=3469.63$, $SD=555.34$). Participants scored highest on the item rating their confidence to develop personal relationships with students ($M=97.41$, $SD=6.46$). On seven statements, at least one participant rated their confidence as 0. On all 40 statements, at least one participant rated themselves 100 percent confident. The findings also describe relationships between participants' scores and demographic factors such as age, ethnicity, graduation year, and school placement.

The findings from this study align with previous research related to culturally responsive teaching. We discuss areas where PETE students might need additional experiences to improve their confidence for teaching in diverse school settings.

PHETE Student Perceptions' of Social Justice Through Autobiographical Narrative Inquiry

Dr. Lee Schaefer (McGill University), Ms. LAUREN HENNIG (McGill University), Dr. Douglas Gleddie (U), Dr. ANDREW BENNIE (Western Sydney University)

While definitions of social justice are nebulous, the phrase has become used frequently across the world in teacher education programs, including physical education teacher education programs (PETE). Critical theory frameworks have been helpful in encouraging pre-service teachers (PST's) to conceptually challenge taken-for-granted beliefs around social justice issues, however, these frameworks often leave PST's educated on the issues without actually having their own stories implicated within the issues. This paper captures the experiences of three 3rd year PHETE preservice teachers (PST's) using autobiographical narrative inquiry as they came to acknowledge how they are situated within larger social justice issues such as race, class sexuality and gender. In writing and inquiring into their own stories influencing their stories to live by, students' lives became involved in the process. Valuing their individual contributions led to a greater sense of personal agency implicating students in actionable ways forward. They were positioned as a part of the issues they faced, rather than critics on the sidelines. Consequently, the social justice issues presented in the PE curriculum development course allowed students to conceptualize solutions as professionals and develop their reflexive capacity informing their decision making. This type of learning implicated students in the application of social justice concepts, which is necessary to ensure the learning done in PHETE classrooms carries over into the schools where PSTs go on to teach. The narrative accounts co-composed in this study, give further insight into how PHETE students navigated their exposure to and experience of autobiographical narrative inquiry (ANI), a transformative pedagogy, in their teacher education program.

Physical education and health (PEH) for sustainability – encompassing an educational sustainability development perspective

Prof. Suzanne Lundvall (Gothenburg University), Dr. Dr. ANDREAS FRÖBERG (Gothenburg University)

The United Nation's (UN) Agenda 2030 is a universal call to action where all sectors of society are to create an inclusive and equal society, and improve the lives of people worldwide. UN has explicitly recognized education as a main driver to realise the 17 sustainable development goals (SDGs) in Agenda 2030. In this sense, there are a number of education-related targets across the SDGs, including good health, well-being and gender equality. In addition to education, sport and physical activity (PA) have been recognized as critical means to achieve the SDGs, and it therefore makes sense that physical education and health (PEH) has the potential to contribute to Agenda 2030. PEH is available in various shapes around the world and different curricula often include movement education, health and lifestyle habits, as well as, body ideals and diet. The educational benefits claimed for PEH involve cognitive, social, affective, and physical domains.

The aim of this presentation is to highlight the urge to encompass a perspective of education for sustainable development (ESD) in the field of PEH. The presentation is based on a literature study where the aim has been to detect if and in what ways sustainability is used as an educational sustainability perspective in PETE programs and school PEH. Overall, the findings indicate that this is a relatively unexplored area and seldom used perspective in the field of PEH. An ESD perspective can challenge current state in PEH and enable new insights into what is critical to teach and understand given the opportunities to make and discuss moral and ethical aspects in relation to health, movement education and lifelong learning and in relation to environmental issues. This includes exploring norms as actions (often socially reproduced) and understandings of expectations regarding one's own behavior.

Physical Education during the COVID-19 pandemic: A glimpse of physical education teachers' experiences

Dr. DR. ERIN CENTEIO (University of Hawaii at Manoa), Dr. DR. KEVIN MERCIER (Adelphi University), Dr. Alex Garn (Louisiana State University), Dr. DR. HEATHER ERWIN (University of Kentucky), Dr. DR. RISTO MARTTINEN (George Mason University), Dr. Jeanne Barcelona (Wayne State University), Dr. John Foley (University of SUNY Cortland)

Purpose: Over the last year, the physical education (PE) environment in schools has been disrupted due to the COVID-19 pandemic. Data from May 2020 identified unique challenges to delivering equitable and effective curriculum across grade level, geographic region, and district type (Authors et al., 2021). This study sought to better understand PE teachers experiences with remote instruction in the United States during fall 2020. A secondary purpose of this study was to understand differences in trends after a summer of planning for remote instruction, from spring 2020 through the fall of 2020.

Methods: Physical Education (PE) teachers (n=607; Elem=73%) from 48 states completed a survey identifying their remote instruction experiences during fall 2020. Survey responses were analyzed by geographic region, district type, and school level.

Results: Teachers reported students having access to technology (82%=yes). Access to technology varied by district type ($p < .001$) but did not vary by region or grade level. Teachers (68%=yes) reported that they required students to submit assignments, and this varied significantly by grade level ($p < .001$) but did not vary by district type or region of the country. Consistent with May 2020 data, teachers emphasized students' outcomes-focused on Standard 3 (30%) and Standard 5 (44%). Sixty-seven percent of teachers reported using multiple forms of video to instruct their classes, although urban teachers reported more use than their suburban and rural counterparts. Finally, 31% of teachers rated themselves as effective teachers.

Conclusions: It appears access to technology improved from spring to fall, but significant differences remained depending on the type of district. Teachers taught Standards 3 & 5 in their classes more than other standards, consistent with previous data. Additional results will be presented to better understand physical education in the U.S. during the pandemic.

Physical Education Teachers as Leaders of Comprehensive School Physical Activity Programs: A S.M.A.R.T. Approach.

Dr. DR. AWADHESH KUMAR SHIROTRIYA (Fiji National University)

Like all teachers, the role of the physical education teacher (PET) evolves with time. This evolution results in constant evaluation of the role of physical educators in contemporary education. In schools, PETs are essential as they help students learn the importance of physical activity and how it can lead to their health and wellness. It is also argued that physical education's role is not limited to the development of sports skills but also in curbing non-communicable diseases (NCDs) and the building human capital of any country. Further, as the prevalence of NCD's increases, society, including parents, educators, and community members, the role of the physical educator in schools is evolving. The purpose of this paper is to describe the multiple roles of a PET in a school setting for the promotion of sports and physical activities. Now the *S.M.A.R.T.* (Supervisor, Motivator, Advocate, Researcher, and Trainer) role of PET is desired by the schools for imparting Quality Physical Education.

PHYSICAL EDUCATION TEACHERS PROBLEMS IN THE PANDEMIC TIME

Mr. Anggit Wicaksono (Universitas Negeri Semarang), Ms. Nur Aisa Windawati (Universitas Negeri Semarang), Mr. Rivan Saghita Pratama (Universitas Negeri Semarang), Mr. Rubianto Hadi (Universitas Negeri Semarang)

This study aims to identify the impact of the Covid-19 pandemic on learning activities in Physical Education subjects from teachers point of view in Magelang Regency. Learning activities, which are normally deliver with face-to-face, must be held with online. Teachers and students must adapt to these conditions. This research uses descriptive quantitative method. The sampling technique used purposive sampling. The research sample was 30 teachers of Junior High School Physical Education in Magelang Regency. The research instrument used a questionnaire that was distributed online using google form. The instrument has been tested for validity and reliability with expert judgment and field trials. The instrument was tested on 30 respondents. The trial results, of the 25 questions, there are 16 valid questions. The results of the reliability test using Aplha Cronbach with $n = 30$ significance level = 5% obtained a coefficient of 0.763 which is greater than r table = 0.361, so it can be concluded that the instrument used is reliable. The results of this study indicate that as many as 14.30% of teachers experienced the impact of online learning due to the COVID-19 pandemic in the sufficient category, 47.60% of teachers experienced the impact of online learning due to the COVID-19 pandemic in the high category, and 38.10% of teachers experienced the impact of online learning due to the COVID-19 pandemic in a very high category. The majority of junior high school PJOK subject teachers in Magelang Regency felt the impact of online learning due to the COVID-19 pandemic with an average score of 63.86. Teachers and institutions must provide or facilitate especially the infrastructure needed in the online learning process and teachers further improve their abilities in the aspect of technological literacy.

Physical Literacy in teacher education -can everybody gain from playing the same game?

Mrs. ANNEPETRA JENSSEN (NTNU)

In Physical education we work with the whole scale of skills, knowledge, motivation and confidence. What could be important factors when you have the whole scale of performance and you want to encourage all “players” to gain from the exercise and grow. How could it be possible to engage all students in the same game?

I base my thinking on Physical Literacy “*as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life*” (Whitehead 2013). I use parts of “The Teaching Games for Understanding” thinking; which teach games through games and see participants are intelligent performers in games. Participants need to know the subject matter and to be challenged according to skills. Pair this with the notion that you can respond to different parts of the game.

In this study I have looked at one of the obligatory coursework that is given to the teacher students in Physical Education (PE). Then I discuss one of the student responses.

In the coursework given to the students in groups of three; they had to create a new game. The games had to include cooperation, sensible self-determination, and be more oriented towards the process than the goal.

I will illustrate the possibilities in the games with a strict technical game. At first glance I only saw the technical skills. Looking at the variations and the ways you could choose movement pattern, or switch to touch without a ball. Here you allow the best players to flourish and make others engage in the same because of the choices you have. Giving the students the possibility to gain from their own qualities, and their level of skills could be a way to gain in the long run.

Physical Literacy, Physical Education and Sport: Stakeholders and Controversies

Ms. LISA YOUNG (Monash University), Dr. LAURA ALFREY (Monash University), Dr. Justen O'Connor (Monash University)

As the popularity and adoption of Physical Literacy (PL) has steadily increased internationally over the last two decades so has the number of stakeholders or actors entering the field to promote the different 'versions' of PL they envision. Due to the multiple 'versions' of PL that co-exist, this research argues that PL represents a *social controversy* (Venturini, 2010). We focus in particular on the overlapping contexts, concepts and stakeholders of PL, Physical Education (PE) and sport, who have been tasked with making sense of, and enacting, the different 'versions' of PL. With implications for research and practice this research takes stock of PL, and presents findings that allow for an understanding of the concept as it has appeared on the mainstream and scholarly web over time (1993-2021). 73 URLs from Google and 161 papers from the peer-reviewed literature were analysed according to Actor-Network Theory and Venturini's (2010, 2012) 'cartography of controversies'. Data analysis involved observing and describing the network of actors (human and non-human) involved in the PL controversy, their viewpoints, relations and the ideologies that permeate said relations. Findings produce mappings that identify PL as 'ontologically unstable', having been (re)constructed by diverse actors to *perform* multiple roles as it shifts, changes and moves through time and context. PL is therefore a *process* that we should expect to *change*. Rather than present a single, universal or 'correct' version of PL, Mol's (2002) notion of multiplicity is drawn upon to present an ontologically plural approach to PL for stakeholders to adopt. Using this approach, PE teachers and other stakeholders can become more aware of the ontological similarities and differences across the multiple 'versions' of PL. As a result, the usefulness and serviceability of PL is made more explicit, better enabling future empirical research, policy and practice.

Podcasts as a Pathway for Living Wellness in Higher Education

Ms. ELIZABETH TINGLE (University of Calgary), Ms. LISA M. TAYLOR (University of Calgary), Ms. DANA FULWILER (University of Pennsylvania), Ms. REBECCA MARJORAM (Ever Active Schools), Dr. DR. SHELLY RUSSELL-MAYHEW (University of Calgary)

We are wellness educators; how are we living wellness in our classes? In the Werklund School of Education at the University of Calgary, all Bachelor of Education students are required to take the EDUC 551: Comprehensive School Health and Wellness course in their final year as pre-service teachers. With both a lecture and lab component for the course, historically students were required to attend a plenary lecture in a theatre and then break off into lab groups afterwards. Student feedback indicated a desire for change which fuelled a new vision for lecture material to be replaced with a podcast, *The Podclass: Conversations on School Health*, a joint project between the Werklund School of Education and the national charity Ever Active Schools. The Podclass offers students the opportunity to engage in their learning on their own time and encourages them to access activities that support their own multi-dimensional wellness while listening. Offering students the opportunity to support their wellness while listening to lecture material “walks the talk” of the Comprehensive School Health approach, which advocates that students who are well are more likely to achieve their academic potential. In this presentation, join a panel of Podclass contributors who draw on their perspectives in their many roles as producer, host, course coordinator, lab instructor, featured speaker, and K-12 teacher for a behind-the-scenes look at the making of The Podclass and the implementation of this pedagogy in the Winter 2021 semester. While originally envisioned before the COVID-19 pandemic, The Podclass offered a seamless transition for lecture material online during the pandemic and gave students a break from computer-bound learning. We aim to share the wellness-focused work being done at the Werklund School of Education, as well as inspire others to reconsider how pedagogical norms can be challenged to further support student wellness.

Pre-service Classroom Teachers and Physical Activity During the School Day

Ms. HAYLEY MCKOWN (University of Hawaii at Manoa), Dr. DR. ERIN CENTEIO (University of Hawaii at Manoa), Dr. DR. PAMELA KULINNA (Arizona State University)

Background and purpose:

The USA Centers for Disease Control and Prevention has identified Comprehensive School Physical Activity Programs (CSPAP) as public health programming that teaches and promotes healthy lifelong behaviors in schools (CDC, 2018). Guided by the CSPAP conceptual framework, this pilot study used a mixed-methods design to better understand pre-service classroom teachers' perceptions, knowledge, and self-efficacy towards implementing physical activity (PA) during the school day, in both face-to-face and online environments. A secondary aim was to understand the relationship between pre-service teachers' efficacy and their personal PA behaviors and experiences.

Method:

Participants included 43 pre-service classroom teachers (Male=9%; White=79%; Elementary=58%), with six different content foci (e.g., mathematics) from one Southwestern USA teacher education program. The 42-question survey included demographics, teacher education program experiences, personal PA/sport experiences, knowledge questions, and efficacy towards implementing classroom PA. Seven students participated in follow-up semi-structured interviews. Descriptive statistics, frequencies, and t-tests as well as constant comparison analysis were used.

Results:

Participants reported little preparation for implementing PA in schools, but most students (80%) identified the correct guidelines for youth PA. Participants reported higher efficacy in implementing in-person PA breaks ($M=3.16$) versus online ($M=2.6$; $t=4.8$, $p<.01$, $d=.72$). Participants did not report being personally active, with only 42% indicating that they were active five or more days per week. Three themes emerged from the qualitative analysis: 1) classroom PA concerns, 2) resources, and 3) online learning during COVID-19.

Conclusion & Implications: Understanding the preparedness and efficacy of pre-service teachers to implement PA is important. This pilot study begins to understand, in a small sample, how pre-service teachers are thinking and feeling about implementing classroom PA breaks both in-person and online. Given the lack of research with this population, implications could lead to better understanding how to better prepare pre-service classroom teachers to implement a CSPAP in the school setting.

Professional Development of Content Knowledge as an Evidence-Based Practice for Developing Teaching Effectiveness

Dr. Insook Kim (Kent State University), Dr. DR. PHILLIP WARD (The Ohio State University), Dr. Oleg Sinelnikov (University of Alabama), Dr. Bomna Ko (East Carolina University), Dr. Peter Iserbyt (KU Leuven), Dr. Weidong Li (The Ohio State University), Dr. Matthew Curtner-Smith (University of Alabama)

Pedagogical content knowledge (PCK) is best thought of as the decisions teachers make when they apply various knowledge bases in their planning and instruction. Content knowledge (CK), as one of these knowledge bases, is considered a robust and alterable variable that influences PCK (Ward et al., 2020). We conducted a meta-analysis of three previously published studies (Iserbyt, Ward, & Li, 2015; Sinelnikov, Kim, Ward, Curtner-Smith, & Li, 2016; Ward, Kim, Ko, & Li, 2015) to identify evidence-based practices for physical education teachers in improving PCK and student performance. Teachers' PCK variables such as task selection, representation, and adaptation, and middle school students' percentages of correct or incorrect skill trials (n = 208) were collected from 187 badminton lessons before and after the badminton CK workshop. Both teacher and student data were descriptively analyzed using the unweighted fixed-effects meta-analysis model. This study used two criteria for interpreting the results from meta-analysis: (a) Cohen's (1988) criterion of .80 for large effect and (b) U.S. Department of Education's What Works Clearinghouse (WWCH, 2014) effect size (ES) .25 criterion for a substantively significant impact. The results of the study indicated that: (a) The teachers used more developmentally/principally appropriate tasks, verbal/visual representations, inter-/intra-task adaptations per lesson after developing in-depth badminton CK, (b) students in the experimental classes (n = 104) had higher percentages of correct skill trials and lower percentages of incorrect trials than those in the comparison classes (n = 104), (c) 35 ES scores were generated across the teacher, and student variables in the three studies, and (d) All ES scores except one exceeded both WWCH and Cohen's criteria. Findings from this study support the focus on the professional development of teachers' CK as an evidence-based practice for improving the PCK of the teachers and, in turn, student performance.

Qualification of prospective physical education teachers for inclusive physical education - an academic didactical concept for the master programme

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The qualification of physical education (PE) teachers for inclusive physical education still poses a central challenge for the didactic approach of teaching and researching of sports. Although an accomplished professional discourse focussing on inclusion-orientation of PE teachers (Block, Giese & Ruin, 2017) has been developed both nationally and internationally in recent years, a lack of evaluated techniques to impart requirement specific situational competences exists (Erhorn, Möller & Langer, 2020).

The goal of the Federal Ministry of Education and Research's (BMBF) funded project is to develop and evaluate an academic didactical concept for the master programme of prospective PE teachers, which enables students to manage the specific requirements of inclusive PE. In the context of the project, a competence-oriented teaching sequence will be developed, which is based on theoretically derived requirements and empirically generated needs of inclusive PE.

The teaching sequence encompasses a seminar and a subsequent practical term with an accompanying seminar. In the context of the seminar, different types of requirement situations will be examined in conjunction with case work and portfolio work, to impart related competence facets. The practical semester will focus on planning and performing a teaching sequence whilst taking into account inclusive demands, as well as the documentation and evaluation of personal experiences and other requirement situations arising from inclusive PE.

In the context of this paper, the developed academic didactical concept will be presented. Additionally, initial results of the evaluated teaching sequence are discussed, with regard to their international significance.

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Quality Physical Education Indigenous Intergenerational Mentorship Program: Impact on Northern Education Communities in Canada

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Dr. DR. BRIAN LEWIS (Growing Young Movers Youth Development Inc.)*

There is a growing consensus within the physical education (PE) literature that continuous learning and professional development (PD) opportunities are vital to the profession (Armour et al., 2017; Armour & Yelling, 2004; 2007; Ko et al., 2006; Rink, 2012). As Armour et al. (2017) express, creating and sustaining a professional community is a quintessential aspect in fostering instructional improvement for PE teachers. However, traditional PD opportunities must be adapted, evaluated, and remain attentive to the contexts in which teachers live and work (Livingston, 2017). Additionally, PD programming and research involving Indigenous populations has historically been conducted *on* Indigenous communities instead of *alongside them*. In response, this pilot project collaborated with an Indigenous community organization and Physical Health Education Canada to increase the capacity of 28 teachers in First Nations communities to incorporate Quality Physical Education in their schools. The 28 teachers participated in two one-day workshops that included an introduction to the *Move Think Learn* (MTL) resource as well as developmental ways to incorporate the MTL resource into their PE classes, schools, and communities. Along with MTL resources, an intergenerational framework was used to advocate for the inclusion of older student mentors working with younger students. This study used both quantitative and qualitative methods for data collection. The efficacy of the workshop was measured using the Capabilities, Opportunities, Motivation, and Behaviour change model (COM-B). Additional pilot project activities implemented to support teacher capacity included on-going professional development (i.e., webinars) and funding. Three data collection points (pre-workshop, post-workshop, and 3 months after workshop) were used to analyze the impact that the workshop and resources had on teachers' capabilities, opportunities, motivation, and behaviour change. The quantitative and qualitative data identified significant increases in both teachers' capabilities and opportunities while motivation remained constant with no significant increase due to preliminary high motivation levels.

Re-imagining School Sport: Development of a School Sport 4 All (SS4A) Framework

Mr. JONATHAN MAURO (University of Alberta), Dr. LAUREN SULZ (University of Alberta)

A recent report card from ParticipACTION (2020), states that less than 1 in 5 children and youth in Canada meet national guidelines for physical activity, sedentary and sleep behaviours. Participation in school sport allows students to gain valuable life skills (communication, problem-solving, and goal setting), increased range of social-emotional skills (improved self-esteem, social skills, emotional regulation and coping skills), supports academic achievement, a desire to stay in school, improved physical literacy and fitness (Sulz, Schubert, & Gledie, 2019). Recent trends have shown overall participation in school sport is on the decline (Kanters et.al 2012; Ridpath, 2017), as such, there is a need to ‘re-imagine’ the current school sport structure to promote participation. The purpose of our research was to create new understandings of how sport is offered within school contexts. Therefore, the School Sport 4 All (SS4A) framework has been developed.

Specific presentation objectives include: (a) sharing findings of school sport from key stakeholders; (b) sharing an evidence-informed SS4A model. The creation of a School Sport for All evidence-based framework was completed through literature review, utilizing the Comprehensive School Health Framework and reflective practices. Perspectives from key stakeholders (students, parents and division staff), that have been utilized to help evaluate and improve the draft framework will be shared.

The SS4A model is developed through an analysis of relevant research and the Comprehensive School Health framework. Qualitative data collection strategies were used to gain insights into the experiences and perceptions of key school stakeholders (i.e., students, parents, teachers, administrators) involved in SS4A. This research has created an important framework, the SS4A model. The goal through implementation of the SS4A is to help increase student participation in school sport, increasing students’ well-being.

Readiness of first year student teachers for inclusive PE teaching

Mrs. TERESA SCHKADE (Deutsche Sporthochschule Köln)

Introduction

An inclusive educational approach in schools has received much attention in recent years. As noted by Sherrill (2004), the discrepancy between ambition and reality is still great. The study analyses the attitudes of student teachers in physical education (PE) teacher education at the beginning of their first year of a bachelor's degree towards inclusive PE. The results are then compared with those of master's degree PE student teachers.

Methods

Research was conducted through a quantitative survey involving bachelor PE student teachers in their first year as well as first year master students at the German Sport University Cologne during the 2016/17 winter term. The AH-PEC-Scale (Thomas & Leineweber, 2018) was used to measure attitudes towards different dimensions of heterogeneity in PE.

Results

The lowest mean value for both cohorts is in regard to coeducational PE: both bachelor student teachers ($M=1.45$; $SD=.84$) and master student teachers ($M=1.34$; $SD=.67$) have a positive attitude towards girls and boys being part of the same PE classes. A more differentiated picture of the student teachers' attitudes emerges relating to different special educational needs, a finding which will be explained during the oral presentation.

Conclusions

It is recommended to make educators more aware of opportunities to sensitise student teachers towards inclusive attitudes early on during their studies. Awareness can reduce stigma and lead to better understanding of children with SEN.

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Key words (5)

Attitudes, AH-PEC-Scale, inclusion, physical education, student teachers

Reconsidering The Spectrum of Teaching Styles and Models Based Practice.

Dr. Brendan SueSee (University of Southern Queensland), Dr. Shane Pill (Flinders University)

The aim of this presentation is to reconsider how The Spectrum of Teaching Styles (The Spectrum) sits 'inside' the trending models based practice (MBP) paradigm. Pedagogical models have been proposed to overcome the limitations and deficits in student learning arising from what has been termed the traditional 'physical education method' (Metzler, 2011). However, these limitations were recognised by Mosston in 1966 and from which The Spectrum of Teaching Styles was presented as a solution. Using The Spectrum, we will suggest ways to bridge the gap between the idea of MBP and the 'happening' of teacher's implementation of MBP, addressing concerns raised in recent academic debates (Casey et al., 2020). Whilst we intend to be provocative through our suggestions it is not our intention to suggest that any MBP in particular is failing. Rather we question why The Spectrum continues to be largely ignored in contemporary discussion of MBP's and reconstructed notions of the educational value of quality Physical Education. This conversation is timely considering reservations about the successfulness of 'second generation' (Ennis, 2014) MBP exist in the literature and along with evidence of the continuation of the historically common physical education method despite its well-recognised limitations and despite the academic promotion of MBP as a 'solution'.

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Reflecting on Physical Education: The good, the bad and the ugly.

Dr. DR. LIZ DURDEN-MYERS (Bath Spa University | The University of Gloucestershire), Mr. Will Swaites (Birmingham City University)

Abstract

Background: Kirk (2010, 2012) argues that the ability of physical education to enthuse, engage, and promote lifelong engagement is frequently disputed, with concerns that, without a radical reform, the subject is in danger of becoming extinct. There has been an increasing amount of literature that suggests that physical education has troubled times ahead (Stier, Klienman and Milchrist, 1994; Penney and Chandler, 2000; Kirk 2010), and this leads to an increased criticality and speculation about the future of physical education. While Covid-19 has presented many challenges to education and society more broadly, it has also provided the profession with an opportunity to reflect critically on the future of physical education. This paper explores a range of physical education approaches and perspectives spanning pre Covid-19, during Covid-19 and what the future may hold post Covid-19.

Discussion: The discussion centres on the alignment and potential misalignments between philosophy and purpose (intent), pedagogy and practice (implementation) and accountability and assessment (impact) within physical education.

Conclusion: The paper calls for the profession to utilise this unique opportunity to reflect on and reframe the purpose of physical education and come together united with a clear framework settling out its mission, core principles and deliverables.

Key Words: physical education, pedagogy, practice, research, curriculum, perspectives, purpose, global.

Relation entre l'intelligence émotionnelle et les caractéristiques physiques et physiologiques des joueurs de football selon leurs positions dans le jeu

Prof. Abdolhamid Daneshjoo (Shahid Bahonar University of Kerman), Prof. JAOUAD ALEM (Université Laurentienne)

La connaissance de la relation entre les caractéristiques des joueurs et l'intelligence émotionnelle peut être utile aux entraîneurs sportifs pour qu'ils se concentrent davantage sur les facteurs psychologiques d'entraînement. La relation entre l'intelligence émotionnelle (IE) et les positions qu'occupent les joueurs dans le jeu selon leur groupe sanguin, leurs expériences et leur programme d'étude (sciences humaines versus sciences fondamentales et génie) a été étudiée. 136 étudiants (âge $22,4 \text{ ans} \pm 2,8 \text{ ans}$, poids $70,5 \pm 7,2 \text{ kg}$, taille $1,8 \pm 0,65 \text{ m}$, expérience $7,5 \pm 3,8 \text{ ans}$) de l'Université Payamnor d'Iran ont participé à cette étude. La mesure de l'IE (Goleman, 1995) est composée de 33 items évaluant cinq dimensions : 1-la motivation personnelle, 2- la conscience de soi, 3-la maîtrise de soi, 4-la conscience sociale et 5-les compétences sociales. Les corrélations entre les positions des joueurs (gardien de but, défenseur, demi-arrière, attaquant), les groupes sanguins et les types de programme d'étude avec l'IE ne sont pas significatives. L'IE la plus élevée a été trouvée chez les gardiens de but (moyenne=111,21, n=14). Bien que nos recherches ont reportées des relations non significatives ou faibles entre l'IE et les caractéristiques physiques et physiologiques des joueurs de football en fonction des positions qu'ils occupent dans le jeu, nous recommandons des recherches plus poussées. Il serait intéressant par exemple, de comparer les corrélations en fonction des pays ou du genre des joueurs. Cela aiderait les entraîneurs à identifier des stratégies psychologiques pour améliorer les performances pendant le match et à mieux sélectionner les joueurs en fonction de leurs positions.

Results of a Physical Education Teacher Education Program's Curriculum Mapping Exercise

Dr. COLLIN BROOKS (University of West Georgia), Dr. Jennifer Krause (University of Northern Colorado), Dr. DR. JAIMIE MCMULLEN (University of Northern Colorado), Dr. Brian Dauenhauer (University of Norther)

Background: Physical education teacher education (PETE) programs aim to graduate qualified physical educators to teach kindergarten through the 12th grade students. To ensure curriculum aligns with best practices and professional standards, PETE programs often undertake processes of curriculum mapping and program accreditation to address accountability. Curriculum mapping is considered a highly effective systematic approach to aligning standards with program curriculum and a starting point for faculty to engage in ongoing curriculum improvement recommendations. However, little research has been conducted on the process of curriculum mapping within PETE programs. Therefore, the purpose of this study was to complete a curriculum mapping exercise and identify curriculum strengths and gaps within one PETE program. **Method:** Using procedures established by Britton et al. (2008), a curriculum mapping exercise using six sets of standards and 21 PETE courses was conducted at one university in the Western United States. Individual course curriculum maps and the program curriculum map were the primary data sources for this study. The data were analyzed using a deductive content analysis (Sparkes & Smith, 2014). Based on the number of times particular course outcomes aligned with professional standards, the researcher was able to “draw reference from this quantifying process about the data in question” (Sparkes & Smith, 2014, p. 116). **Results:** Three themes were established based on the results of the curriculum mapping exercise: (a) curriculum strengths, (b) the need for multiple standard sets, and (c) [potentially] outdated and disconnected standards. **Conclusion:** This study considered the complexities and rigor associated with curriculum mapping alignment within one PETE program, aiding faculty in considering future course changes by identifying curriculum gaps and strengths within the PETE program. Future research should aim to provide further recommendations on curriculum mapping procedures for PETE programs.

Skipping Physical Education: Individual and Interpersonal Predictors

Prof. Arunas Emeljanovas (Lithuanian Sports University), Dr. BRIGITA MIEZIENE (Lithuanian Sports University), Prof. ICHIRO KAWACHI (School of Public Health, Harvard University), Ms. LAURA TUMYNAITE (Lithuanian Sports University)

Background. High-quality physical education (PE) is supposed to promote physical activity at and outside of school and as a consequence to promote health. Previous studies suggest that school students' attitudes towards participation in physical education are heterogeneous, depends on the students' previous experiences, and on their present health and quality of life. The aim of this study is to determine both individual and interpersonal factors of participation in PE.

Methods. The cross-sectional population-based study included 1287 high school students. Among them 542 (42.2%) were boys. Participants allocated between 9 to 12 grades 37.9, 30.5, 17.7 and 13.9 percent, respectively. Students were asked how many PE lessons a week they have and how many they are skipping. Among individual-level predictors body mass index (BMI), the attitudes towards PE (enjoyment and usefulness), relative autonomous index (BREQ-2) were identified. At the interpersonal level, factors of social capital like family support, school vertical trust, school horizontal trust, reciprocity at school, social participation and social network were indicated by separate items.

Results. Preliminary analysis showed that 94% of students usually have 2 PE classes per week, 41.6% of students are not skipping their PE classes, the rest skip at least one PE class. Those who skip PE classes do not differ in terms of gender, grade, BMI, enjoyment towards PE, autonomous motivation, family support, horizontal school trust and reciprocity. However, PE skipping was predicted by a number of PE classes per week ($\beta=.10$), lower self-rated health ($\beta=-.10$), lower perception of PE usefulness ($\beta=-.33$), lower vertical school trust ($\beta=-.15$) and greater social participation ($\beta=.11$).

Conclusion. Participation in PE could be encouraged by strengthening social capital in terms of trust between teachers and students, educating students on the health-related and other benefits of physical activity in PE and after school.

Slim, fit and motivated? PE teachers' discursive construction of the student's body

Ms. Brigitta Höger (University of Vienna)

Physical Education is a significant site for negotiating and critically engaging with meanings about the body for young people, with PE teachers as powerful stakeholders (Azzarito, 2009). Recent research has made valuable contributions towards understanding the construction of the gendered and racialized body as well as particular discourses about health, ability, fitness and obesity in PE. However, PE teachers' perspectives have received little attention, whereas the body has not been considered as an individual dimension of differentiation thus far. This research project investigates how PE teachers in Austria discursively construct students' bodies. Founded on a phenomenological perspective on the body, a Foucauldian understanding of discourse and a multi-level approach to intersectionality along the four dimensions of gender, race, class and body (Winker & Degele, 2009), this project aims to open new perspectives on the powerful, entangled intricacies of social differences and their relation to the body from a PE teachers' perspective. It combines digital collage-making (Grant, 2019) and structured guideline interviews with PE teachers in order to elicit the overt, subtle and alternative forms of knowing and speaking of the body as an inherently intersectional entity. Applying a multimodal approach to Foucauldian Discourse Analysis (Willig, 2013), data material is investigated through a four-dimensional framework of gender, race, class and body in order to trace how discursive threads intertwine to produce object constructions, subject positions and subjectivities in relation to students' bodies. Results will contribute to understanding in how far PE can serve as a site for the reproduction, critical negotiation or resistance of dominant body discourses.

Students' Motivation in Physical Education – Development and Preliminary Validation of a German Questionnaire for Children Based on Self-Determination Theory

Ms. Kathrin Kohake (Universität Hamburg), Dr. TIM HEEMSOTH (Universität Hamburg)

More self-determined motivation of young children in physical education (PE) has been shown to improve future engagement in physical activity. According to Self-Determination Theory (Ryan & Deci, 2017), an educational environment that supports the three basic psychological needs of autonomy, competence, and relatedness is expected to facilitate need satisfaction and, therefore, more self-determined motivational orientations. However, most research concentrates on the age of adolescents whereas less attention has been paid with regard to younger children (van den Berghe et al., 2014). Thus far, there are no appropriate instruments to investigate the psychological need support, need satisfaction, and motivation for younger students. The present study aims to develop and preliminarily validate the German SMOPE-instrument (Students' Motivation in Physical Education) for the constructs need support, need satisfaction, and motivational orientation for 8-13-year-old children in PE. Therefore, after a cognitive lab study, $N = 1,011$ students from grade 3 to 6 answered a questionnaire with modified items that based on research in the field of extracurricular sports with regard to the three constructs. The result is a questionnaire of 33 items including three need-support-subcales, three need-satisfaction-subcales and five subscales regarding the motivational orientation. Results of confirmatory factor analyses with acceptable to excellent fit indices for all scales as well as proof of a simplex structure concerning the motivational orientation will be presented. In addition, positive relationships between the support of competence and both intrinsic and identified motivation will be shown with multiple regression analyses.

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Students' motivational profiles related to swimming lessons in physical education

Prof. CEDRIC ROURE (University of teacher education, teaching and research unit in physical education and sport), Prof.

VANESSA LENTILLON-KAESTNER (University of teacher)

Based on the framework of interest, researchers make a difference between the psychological state of interest and the stable trait of interest (Harackiewicz & Knogler, 2017). Viewed as a psychological state, situational interest is characterized by increased attention, concentration and affect experienced in a particular moment. In contrast, individual interest is considered a stable trait and is related to an enduring predisposition to reengage with a particular content over time. According to many researchers, there is a need to provide conceptual clarity in terms of the relationship between situational and individual interest. The purpose of this study was to investigate the relationships between students' individual interest, achievement goals, perceived competence and situational interest, by using a cluster analysis in swimming. Three hundred and eighty-two secondary school students ($M_{age} = 13.0$, $SD = 1.4$, 50.5% girls, aged 11-16) enrolled in swimming lessons during PE classes, participated in the study. They responded to validated questionnaires assessing their individual and situational interest (Roure, Lentillon-Kaestner & Pasco, 2021; Roure, 2020), achievement goals, and perceived competence in swimming. A cluster analysis was performed to examine students' profiles in relation to their individual interest in swimming. Then, for each profile identified, correlations and multiple-regression analyses were used to examine the relationships between students' individual interest, achievement goals, perceived competence and situational interest. Four different students' profiles were identified which represented a continuum from a "Very low individual interest and triggering situational interest" towards a "Well-developed individual interest and actualized situational interest". Each profile was characterized by specific relationships between individual interest, achievement goals, perceived competence and situational interest. Referring to the model of interest development (Hidi & Renninger, 2006), the four profiles identified were aligned with the four phases which represent the transition from students' situational interest towards students' individual interest.

Teachers' and Students' Experiences on How Teachers Transfer Their Health and Physical Activity Knowledge into the Practice

Ms. Emine Büşra Yılmaz (Pamukkale University), Dr. Deniz Hunuk (Pamukkale University)

Teachers' and Students' Experiences on How Teachers Transfer Their Health and Physical Activity Knowledge into the Practice

Purpose: This study aimed to examine teacher and student experiences about how physical education teachers with high health-related fitness knowledge who used it in their classes internalize this information and transfer it to their practice.

Method: The data collection process included in three stages. In the first stage, 74 teachers were given the Health-Related Fitness Knowledge (HRFK) Test and the Teaching Competency Self-Evaluation Scale. The results of the tests revealed that there were 11 physical education teachers with 20 full points on the HRFK test who scored their own competence level of using this knowledge in the classroom as 8 or higher on a scale of 10. In the second stage, individual interviews were conducted with these 11 teachers. According to individual interviews, 4 teachers were selected who had high HRFK and used the knowledge in their classes comprised our participants group of teachers. In the third stage, focus group interviews were held with the students of these 4 teachers selected on certain criteria in order to examine the effects of the strategies/methods/techniques teachers' used in their classes. While quantitative data were analyzed by descriptive statistics, qualitative data were analyzed by using the constant comparative content analysis method.

Results: Analysis of teachers' and students' interviews revealed three main themes: 1) Teachers' and students' HRFK sources, 2) Instructional approaches used by teachers in the instructional setting, 3) Students' transfer of their knowledge to their daily lives.

Conclusion: When teachers with high knowledge levels use approaches that enable students to transfer the knowledge shared in the classroom seamlessly to their daily lives, students maintain their physical activity and also positively influence the people around them (coaches, friends and family).

Teachers' perceptions of the Finnish national curriculum and inclusive practices of physical education

Mr. CHRISTOPHER MIHAJLOVIC (University of Vienna)

Background: Due to the success in PISA, the Finnish education system has received global attention in recent years. The PISA findings refer to a high degree of equality and equity regarding the students' learning outcomes in Finland (Kivirauma & Ruoho, 2007). While in many countries, education reforms have recently focused on increased standardization of education, Finnish reforms have emphasized school autonomy and the empowerment of teachers through school curriculum development (Yli-Piipari, 2014, Niemi, 2015). However, little research in Finland and internationally has dealt with teachers' perceptions of using critical inquiry approaches and how it figures in the assessment and classroom practices of PE teachers, particularly regarding inclusive practices. Therefore, this study offers deep insights into the perspectives of in-service teachers of PE about their perceptions on how the curriculum frames their possibilities to work inclusive.

Methods: The project uses a qualitative research design. Case studies were conducted with the intention of developing understandings of the teacher's perspective on the current PE curricula at the time of transition to a new curriculum. The present study was carried out over a period of six months through observations of PE classes and semi-structured interviews with teachers (n = 8) in Finland. Data were analysed through content analysis.

Results and Discussion: Preliminary results from participant data indicate that the flexibility of the curriculum seems to have a positive impact on the participants' professional practice. Three emergent themes from participant data thus far include (1) 'Pedagogical autonomy and flexibility of the curriculum', (2) 'Commitment and responsibility' and (3) 'Conceptualisation of PE'. Several participants feel morally responsible for developing their schools. Moreover, for most participants, PE should promote lifelong participation in physical activity. A differentiated and reflected understanding of assessing student achievement in PE seems important to accommodate the individual needs of their students with disabilities.

Technology enhanced learning in physical education? A critical review of the literature

Dr. Julia Sargent (The Open University), Dr. Antonio Calderón (University of Limerick)

The implementation of different digital technologies in physical education (PE) has been increasing in recent years, alongside research to explore their value in terms of pedagogy. In this review, we aimed to use the three components of pedagogy (i.e., teaching, learning, curriculum) to critically investigate what is argued to be 'enhanced' by digital technology. Indeed, by critically exploring technology enhanced learning, we are able to address a notable gap in the literature and begin to critically identify the focuses of enhancement when technology is used to achieve pedagogical outcomes (Casey, Goodyear and Armour, 2017). Using a critical methodology that draws upon the principles of systematic review, we sought to answer our guiding question of 'what aspect(s) of pedagogy is claimed to be enhanced by the use of digital technology in PE?'. Using a variety of search terms and inclusion/exclusion criteria we explored a series of databases to narrow down the pool of papers pertinent to this question. Following deductive analyses of the papers, we reviewed them for their relevance, methodological rigour and theoretical underpinning. The final set of papers ($n=40$) are presented in terms of the claimed technological enhancement in teaching, learning, curriculum. Interestingly, technology enhancements are presented most prevalently in terms of 'enhancing student learning' in areas such as health or motivational variables (e.g. self-esteem, intrinsic motivation and increased energy balance). Findings are discussed drawing on a number of theoretical lenses such as transformative teaching and learning (Quennerstedt, 2019) and meaningful experiences in PE (Kretschmar, 2006). We critically analyse what is done in the 'name of PE' and digital technology. We conclude by presenting suggestions on how to move the field forward and to further debate the roles of digital technology in PE.

The Academic Identity Construction of PE Teacher within Higher Education: Case Study of a Sino-foreign Cooperative University in Guangdong China

Mr. ZIANG LI (University of Macau)

Background/Purpose: With the continuous development of PE curriculum in higher education, the requirements for PE teachers have become more rigorous. Understanding and Construction in the academic identity of PE teachers will help them develop better, hence positively affecting the PE in higher education.

Methods: Academic identity testifies to be a useful conceptual tool in the discussions of academic life. This research therefore explored PE teacher's academic identity construction process by employing the qualitative case study method in order to understand their work experiences. The research focused one case of a Sino-foreign cooperative university in China by interviewing with 6 teachers. Data was mainly collected by semi-structured interview.

Results: Major findings of this research were as follows. Firstly, PE teachers' academic autonomy was restricted in the context of performance-oriented system were vulnerable, restricted and compromising. Secondly, faculty departments and the subgroups within constituted the key context for academic construction at the group level. PE teachers tended to compromise and conform in the negotiation with the tension between the desires for academic autonomy and the reliance on the group and significant others in the group. PE teachers presented weak identity negotiation abilities and thus tending to comply with institutional demands when struggling between autonomy and institutional demands. At the group level, the indigenous concepts of charmed circle and networking emerged as significant factors on identity construction.

Conclusion: Based on the interpersonal process of connections building and favors exchanges, PE teachers' interpretations and applications of charmed circle and networking represented their major strategies to fit into the key academic circles, which also constituted an important dimension of their "becoming an academic".

THE ASSOCIATION OF PHYSICAL ACTIVITY, REGULAR PARTICIPATION IN SPORTS WITH ATTITUDES TOWARDS PHYSICAL EDUCATION AND SCHOOL SOCIAL CAPITAL AMONG HIGH SCHOOL CHILDREN

Dr. BRIGITA MIEZIENE (Lithuanian Sports University), Prof. Arunas Emeljanovas (Lithuanian Sports University), Prof. ICHIRO KAWACHI (School of Public Health, Harvard University), Ms. LAURA TUMYNAITE (Lithuanian Sports University)

Background. The number of adolescents meeting the recommendations of physical activity constantly decreasing around the world. Only up to one-third of school-age children are physically active at least an hour a day. Physical Education is supposed to encourage physical activity not only at school but also in leisure time. **The aim** of the study was to determine the relationships between satisfaction in physical education and leisure-time physical activity and regular participation in sports.

Methods. The study included 1923 high school students aged 15-18 years-old. Among them, there was 41.7 percent of male students. Physical activity was measure by International Physical Activity Questionnaire. Student Attitude Toward Physical Education instrument was also used to identify the respective phenomena. School Social Capital was measured by three items, identifying vertical, horizontal school trust and reciprocity at school. Regular participation in sports was identified by asking if the student attends any sports classes after school regularly.

Results indicated that those participating in regular sports perceive higher enjoyment ($M_s = 3.52 \pm 0.97$ vs 3.18 ± 0.95 ; $p < 0.05$) and usefulness (3.57 ± 0.93 vs 3.43 ± 0.96) in physical education than those who do not participate in regular sports, respectively. Lower perception of usefulness and enjoyment in physical education was related to higher inactivity (Pearson $r = -0.096$ and $r = 0.065$; $p < 0.05$). Higher school social capital was related to higher leisure-time physical activity (Pearson $r = 0.108$; $p < 0.05$) and less time spent passively (Pearson $r = -0.133$).

Conclusion. Those high school students who perceive positive attitudes towards physical education are more physically active and less inactive. Making physical education enjoyable might increase students' leisure-time physical activity.

Keywords: High School Students, Physical Education, Attitudes, Physical Activity.

The Effect Perspective on the Intention-to-post Effect of Prospective Memory at different Movement Levels

Mr. ZHANG YUCHEN (East China Normal University)

Abstract: In order to reduce the negative effects of the intentional aftereffects of prospective memory on people's daily lives and on athletes' performance during their regular training sessions, we will investigate the effects of time perspective on the intentional aftereffects of prospective memory at different levels of sport. The effects of time perspective on the intentional aftereffects of prospective memory at different levels of sport are explored.

Methods: In Experiment 1, the participants time' perspective was manipulated by means of visual and auditory stimuli, and their propensity to time perspective was tested by a self-administered time perspective evaluation questionnaire.

Results: A pair of subjects successfully manipulated the time perspective (Cronbach $\alpha = 0.85$, $M_{\text{cyclic}} = 3.34$ $M_{\text{linear}} = 5.22$ $p < 0.01$), Experiment 2 showed that when individuals were in a linear time perspective, they performed significantly better on the after-intention effect on prospective memory than when they were in a cyclic time perspective, and the more linear the individual's time perspective was, the lower the repetition error rate of individuals, and the more linear the individual's time perspective was, the lower the repetition error rate of individuals, and the more linear the individual's time perspective was, the lower the after-intention effect on prospective memory. There was a significant positive correlation between scores on the time view questionnaire and the percentage of correct keystrokes (Pearson correlation 0.816, $p < 0.05$). For individuals with different levels of motor skills, individuals with advanced motor skills performed significantly better than those with average motor skills in terms of response time and hit rate ($F = 7.76$, $p < 0.05$), and there was a significant interaction between time perspective and motor skills ($F = 18.49$, $p < 0.001$, $\eta^2 = 0.42$).

Conclusion: Individuals with a linear time perspective performed significantly better than individuals with a cyclic time perspective on the intention

The fine line between excellence and abuse: Migrant coaches' negotiation in coaching practice

Dr. YOON JIN KIM (Institute for Olympic Studies, Korea National Sport University)

Safeguarding athletes has emerged as one of the key integrity initiatives across the globe. However, coaching elite athletes at high-performance and elite levels inescapably includes intensive training regimes, which often risks falling into abusive practices. This paper examines the delicate and vulnerable task of elite sports coaching – walking the fine line between excellence and abuse. In order to investigate the double-sided nature of elite sports coaching, this study focuses on coaching within the specific case of migrant coaches. Migrant coaches, as an embodiment of certain cultural norms of their home countries, provide a fruitful, social experimental setting in which we can observe how two different sporting and social norms between host and donor countries both clash and are negotiated. Migrant South Korean coaches serve as the main case for this study given the stark contrast between Western societies' recent highlight on athletes' well-being based on the concept of 'Safe Sport' and the South Korean coaching framework that was mostly formed under the old, military-style training regime (Kim, Dawson, & Cassidy, 2020). Drawing on micro-sociological approaches, the analysis of qualitative data from documents and in-depth interviews with six South Korean coaches will discuss two key themes: (a) how migrant coaches perceive the host country's societal norms, coaching regime and safeguarding standards as different from those of their home country; and (b) how migrant coaches construct their coaching practices through reconciliation of, and negotiation with, the foreign country's norms of integrity in sport. This study is a step towards accumulating much-needed knowledge to inform athletes, coaches, sports administrators and other stakeholders who are all engaged in safeguarding athletes and their welfare.

The impact of a gamified proposal in physical education on social and emotional skills. An experimental study

Dr. DR. CRISTINA HONRUBIA-MONTESINOS (University of Castilla La Mancha), Dr. Pedro Gil-Madrona (University of Castilla La Mancha), Mr. JORGE GONZÁLEZ-BARTOLOMÉ (University of Castilla La Mancha), Mr. ALEJANDRO SÁNCHEZ-MOLINA (University of Castilla La Mancha)

The literature has highlighted that gamification is an innovative methodology that might improve social and emotional skills. For this reason, the aim was to analyse the impact of a gamified intervention in physical education on social and emotional domains with students of 5th grade of primary education. To do that, a gamified intervention during eight weeks was developed with the experimental group composed of 50 students whereas. A control group was also established with 50 students who followed regular physical education sessions. Regarding instruments, the Positive and Negative Affect Schedule (PANAS) scale was used to assess emotional skills and the Classroom Assessment Scoring System (CLASS) to analyze social skills. Data were collected before and after the intervention in both groups. Non parametric tests were performed, more concretely the Mann-Whitney and Wilcoxon signed rank tests. Results highlighted that the experimental group scored significantly higher in social and emotional skills after the intervention in comparison with the control group. Furthermore, positive emotions increased significantly after the intervention. In addition, interaction between peers improved in the experimental group. The findings have shed light on the importance of using innovative methodologies such as gamification to develop social and emotional skills.

The lived experience of newly qualified primary school teachers in their first year of teaching

Dr. EMMA WHEWELL (University of Northampton)

This presentation explores the lived experiences of a critical case sample of eight primary newly qualified teachers embarking on their first year of teaching in England, with focus on the ways their identities as teachers were impacted by their experiences. All participants were trained at the same Initial Teacher Education Provider on a three-year undergraduate degree in Primary Education with Qualified Teacher Status during the academic years of 2013-2016. It explores the individual perspectives, subjective interpretations and issues they identified as contributing factors to their satisfaction, motivation and sense of self.

A qualitative, interpretivist, phenomenological approach underpinned the gathering and analysis of data. This approach captured the uniqueness of the participants' experiences and their subsequent interpretations. Their aspirations, thoughts and expectations were explored through a series of semi structured interviews.

The study findings revealed ways that mentors, head teachers, parents and children interacted with the new teachers to inform their perceptions and interpretations of their first year of teaching and how they saw themselves as teachers. Data captured at the start of their first year reveal the NQTs' trepidation, anticipation, anxiety and excitement for what was to come and their views that they had much to offer their new schools, particularly in respect to their skills in physical education. Findings highlight the importance of context, emotion and people in the new teachers' lived experiences. Their stories provide information that teacher educators may find valuable when considering the ways teachers are supported to prepare for teaching and in their early careers. Ultimately, the study findings have the potential to inform ways new teachers may be retained in the profession and empower them as agents of change with capacity to understand and challenge cultural norms and expectations which may not be beneficial.

THE PERCEIVED BENEFITS OF STRUCTURED AND UNSTRUCTURED PHYSICAL EDUCATION LESSONS: PERSPECTIVES FROM SELECTED HIGH SCHOOLS IN CAPE TOWN

Ms. Chante' Johannes (University of the Western Cape), Dr. Simone Titus (University of the Western Cape), Dr. Marie Youg (University of the Western Cape)

Adolescent activity has decreased in developing countries. Meeting desirable physical activity levels for adolescents in schools can be through physical education. Structured physical education is the ideal form of what physical education should entail, however unstructured physical education can be incorporated to increase physical activity. Little is known about the benefits of both these types of physical education. This study aimed to investigate the perceived benefits of structured and unstructured physical education lessons as perceived by Grade Eight and Grade Nine learners and physical education and/or life orientation educators in Cape Town high schools.

Using the sequential explanatory mixed method research design, data was collected in two phases. The sample population for 10 schools was N=321 (Phase 1) and five life orientation and/or physical education teachers (Phase 2). Phase 1 was the quantitative phase where stratified random sampling was used to administer a self-developed survey to Grade Eight and Grade Nine learners. Data was analysed in SPSS v25 using descriptive and inferential statistics. Phase 2, qualitative, was developed from Phase 1. Phase 2 was conducted with five physical education and/or life orientation educators using a semi-structured face-to-face interview method. A thematic analysis was applied to the qualitative data using Atlas. Ti8. Data was analysed through the lens of the self-determination theory.

In Phase 1 Grade Eight (37.1%) and Nine (62.9%) learners participated in the survey process and described physical education resources, period frequency, and correlations between structured and unstructured physical education, regarding motivation, autonomy, competence and relatedness. Fourteen common themes and subthemes arose in Phase 2. Themes included the benefits of structured and unstructured physical education and learner motivation for participation in physical education. In conclusion, a combination of structured and unstructured physical education can increase adolescent motivation and physical activity. Ethics clearance was obtained for this study.

The professional socialization of digital natives: Creating learning environments with technology

Dr. Ferda Gursel (Ankara University), Dr. Ozlem Alagul (Kastamonu University), Ms. Seda Canli (Ankara University)

It is known in the literature that the weakest stage of teacher socialization is teacher education programs. It is very difficult to change the beliefs and values of the pre-service teachers (PsT) acquired during the acculturation process. When PsTs are presented with information in the PETE program that does not align with their previous experiences and beliefs, they may choose to ignore or filter out that information. However, when an effective program is implemented in PETE, it is found that the PsT can change their beliefs. Because PsTs in PETE program are referred to as digital natives in recent years, digital technologies have an important factor in their learning. Therefore, the learning environments to be created for them need to be arranged differently from the previous generation. In this study, the professional socialization processes of PsTs were explored within the framework of learning spaces (water source, cave, campfire) that allow digital natives to socialize, share and produce things in their lives, developed by Couch and Towne (2018). This research, which was designed with participatory action research, was carried out in the career planning course (15 weeks) of two educators for third-grades (38 PsTs). Data sources were; weekly meetings between teacher educators, 15 week online course recordings, PsTs artefacts, reflective diaries and interviews. Data were analysed using deductive and constant comparison methods. Themes that emerged in the findings: “The source of my water is either family members or my trainer”, “ If I will help the World, a campfire is lit”, “If there is no benefit, there is no continuation”. As a result, learning environments to be created in the PETE program should be organized in such a way that digital natives are fair, open to innovations, arousing, use what they learn in life, evaluate them objectively and benefit the world.

The Reality Physical Fitness of Physical Education Teacher: Study on Semarang Secondary School

Dr. DR. DONNY WIRA YUDHA KUSUMA (Universitas Negeri Semarang), Prof. SOEGIYANTO SOEGIYANTO (Universitas Negeri Semarang), Mr. IPANG SETIAWAN (Universitas Negeri Semarang), Mr. RANU BASKORA AJI PUTRA (Universitas Negeri Semarang)

There are some controversial opinions about what physical education teachers and physical education (PE) teachers should do with regard to fitness. The teacher profession can be rewarding and interesting, but it can also be stressful, anxious, and working long hours. The aim of this study was to describe physical fitness knowledge and condition of Secondary School PE teachers. The method used in this research is a survey method. The sample consisted of 99 Physical Education teachers in Semarang who were taken randomly. Beep test was used to determine physical fitness profiles and FitSmart Test was used to determine knowledge about fitness. The results of this study were the physical fitness conditions showed an average of 50.90 ml/kg/min which means that their fitness is very good. But this is in contrast to knowledge about physical fitness which on average is lacking in the components of knowledge: Exercise Prescription, Effect of Exercise on Chronic Disease Risk Factors, Nutrition, Injury Prevention, and Consumer Issues. And very lacking in the components of Scientific Principles of Exercise. But have knowledge of the moderate category of components: Concepts of fitness and components of physical fitness. The conclusion is that physical education teachers in Semarang have good physical fitness, but have physical fitness knowledge that does not standards. Therefore, teachers must understand the importance of cognitive in teaching physical education

The use of artefacts in physical education teaching: A view from Cultural Historical Activity Theory.

Mrs. Elise Houssin (University of Strathclyde), Dr. Claire Cassidy (University of Strathclyde), Prof. DAVID KIRK (University of Strathclyde)

The use of artefacts is widespread in the practices of physical education teachers. An artefact is any device, either physical or abstract, that might be used specifically to aid learning. A commonplace situation at the pool, for instance, is when a teacher asks pupils to dive over a float in the water near the edge to encourage them to stretch their bodies into a diving shape. This is an example of the use of a physical artefact. While use of artefacts such as this are prevalent in physical education teaching, the notion of an artefact is not well understood or articulated in most learning theories in the physical education pedagogy literature. The purpose of this paper is to show, with reference to a small scale pilot study of learning to climb an indoor wall, how Cultural Historical Activity Theory (CHAT) provides a clear place for the use of artefacts within the teaching-learning process. In this study, the development of a valid and efficient climbing code using hand and foot hold cards enabled the four learners to share their strategies for climbing the wall. The artefact is a type of prop that mediates the relationships between the learner and the learning object (a horizon of possibilities) and outcome. It is, moreover, a product of the community of practice of teachers, a shared and socially selected type of device. Moving from abstract to concrete, the mediating artefact allows both teachers and learners to grasp learning outcomes starting from what the learner already knows and is able to do, and extending them. Its location in CHAT shows clearly its importance in the teaching learning process in physical education which, we will argue, is understated or even omitted in other theories of learning.

Thinking inside the box: Enhancing creativity within primary Physical Education

Dr. DR. GERALD GRIGGS (UCFB)

The 21st century has been an era of technological advances, unpredictability, and unfamiliar demands. As such it is vital that creativity is at the heart of learning, in order to foster lifelong skills required in this new age (Falconer et al., 2018). Historically however the precise meaning of creativity has been multifaceted, holding a wide variety of definitions in different disciplines (Nizhneva-Ksenofontava and Nizhneva, 2018), though in education its usage is often generic (Maisuria, 2005). Consequently it has been an elusive term for teachers to grasp given its widespread use (Kettler et al., 2018) and its manifestation itself in a plethora of policy documentation (Craft, 2006). Yet despite such an overt commitment to the development of creativity, the realities within primary schools appear somewhat different, with teachers delivering a narrowly focused curriculum (Compton, 2007) amidst a results and outcomes driven system, where measurable performance of areas such as Numeracy and Literacy have been given greater value (Ball, 2008).

Whilst creatively inclined teachers can influence their own pupils' creative thinking by modelling their own behaviours and processes (Sanderse, 2013), in such a space, both teachers and children typically benefit from a framework or model in which to develop creative thinking skills (Read, 2015). Among the most useful of suggested models to be found for the practical application of developing creativity in schools is that of Nickerson (1999).

This paper will explore Nickerson's (1999) model for Enhancing Creativity and construct recommendations for how this could manifest itself within primary Physical Education. It is hoped that further development of these ideas will be located in a Chapter in Griggs, G. and Randall, V. (eds) (Forthcoming) *An Introduction to Primary Physical Education*. 2nd Edition. London: Routledge and on the Primary Physical Education Assembly (PPEA) website <http://www.ppea.org.uk/>

Towards “The Just Mover”: A Platonist Interpretation of Physical Education

Mr. JAMIE BRUNSDON (University of Alabama)

Despite his influence on modern day sport, education, and society, few sport pedagogy scholars have attempted to problematize how Plato’s philosophy of education has influenced the profession of physical education. In this presentation, I present one interpretation of physical education as informed by Platonic theory and philosophy of education, and develop one modern philosophical account, as if Plato was the teacher himself. Specifically, I will consider how Plato’s ideal society, belief in the tripartite soul and view of human nature in more ways than one, can be seen and/or associated with modern day perspectives and practices regarding physical education. I will then problematize the usefulness and unhelpfulness of Plato’s interpretation to address what this might mean for student learning, school teaching and university teacher education. By taking this position, I articulate one historic interpretation of justice, and conceptualize what Plato might term, “the just mover.”

Transformation Process of Parents' Criteria towards Learning in Physical Education

Mr. KOJI ISHII (Shinden Elementary School at Edogawa-ku), Dr. NAOKI SUZUKI (Tokyo Gakuge University)

Suzuki (2006) developed a seamless assessment system bridging between teachers and parents ("Media-Portfolio"). The system is a highly educational assessment instrument that captures video footage of students' performances in class, creates a portfolio of multiple visual and auditory assessment data, shares the assessment information with families, and applies it to school education. The purpose of this study is to clarify how the criteria for physical education of parents are transformed by sharing the "Media-Portfolio" (Suzuki, 2006) over the long term by the life story approach. The subjects were three parents who shared the "Media-Portfolio" for two years and had a characteristic transformation in their interaction with their children. The interview data were analyzed by investigated Trajectory Equifinality Modeling.

As a result, at the beginning of sharing the "Media-Portfolio", parents compared and evaluated their children with images of their children made in childhood and friends of their children. However, by sharing the "Media-Portfolio" over the long term, parents have come to pay attention to the "children's facial expressions" when their child is learning physical education. Then, parents transformed the child's "attitude to engaging in activity", "psychomotor skills", and "cognitive skills" into criteria that evaluate from the child's point of view. In other words, the criteria of parents have changed from the facial expressions of learning of physical education of the child to the absolute evaluation of judging the value of learning by the perspective of the child. In addition, by sharing the "Media-Portfolio" among children, parents, and teachers over the long term, it was suggested that parents transformed into supportive behavior for their children by acknowledging the current situation of their children.

Uncharted territory: Remote delivery of Physical Education Teacher Education in a pandemic

Dr. Hayley Morrison (University of Alberta), Dr. ALEXANDRA STODDART (University of Regina)

Physical Education Teacher Education (PETE) has been identified as one of most difficult subjects to transition to remote delivery/online due to its inherent embodiedness in nature (Lu et al., 2020). There are many anticipated challenges of teaching PETE curriculum and pedagogy online including student comprehension and use of movement concepts, skills, and strategies; student lack of opportunities to peer-teach and learn experientially to support their operationalization of PE instructional models, and; teacher training for remote delivery (Lu et al., 2020; O'Brien et al., 2020). Anticipating these challenges with our limited online teaching experience, we wondered (a) what are the advantages and disadvantages of teaching PETE online? (b) what changes occur in our practices and pedagogy while teaching PETE online? and (c) what does teaching PETE online mean for the future of PE? With our commitment to ongoing professional learning and the desire to better understand our practice of teaching PETE, we used a collaborative self-study of teacher education practice (S-STEP) methodology (Laboskey, 2004; Pinnegar & Hamilton, 2009). As critical friends, we inquired and interrogated our assumptions, actions, and lived experiences of teaching PETE online. Data were gathered between September - December 2020 through 24 journal reflections; written reflections; five recorded and transcribed critical friend meetings, and; documents/artifacts (lesson plans, online teaching platforms, assignments, student work, student feedback). Data were analyzed using inductive and deductive approaches. Findings include (a) Modeling Movement: "What about the *live* and *in-the-moment* experiences?"; (b) Connection & (Mis)Communication: "I can see and hear them but I can't feel them"; (c) Shifting Strategies: "Maybe less is more...". The impact of this S-STEP on ourselves and practice, including the impact of a critical friendship on pedagogy, will be shared alongside implications for PETE educators, pre-service teachers, and the field of PE.

Using video modeling in athlete-centered pedagogy : Lessons learned from an intervention with youth ice hockey players

*Mr. JULIEN GLAUDE-ROY (Université du Québec à Trois-Rivières), Dr. Claude Dugas (Université du Québec à Trois-Rivières),
Prof. Jean Lemoyne (Université du Québec à Trois-Rivières)*

Video modeling to assist learning is a coach-centered strategy used in sports for a few decades now. Lately, the use of more athlete-centered learning strategies to enhance learning and development of sport expertise has emerged. A pilot study was conducted to assess the outcomes of a video-modeling based strategy in a social constructivist perspective among 16 adolescent ice hockey players (12.1 ± 0.8 years old). In addition, we wanted to verify the presence of a possible mediating effect of age in changes of performance. Sixteen players aged between 11 and 13 years old were randomly assigned in two groups: 1) video modeling and 2) social constructivist video modeling. Participants took part to 10 training sessions in a 5-week intervention by completing 15 minutes of modeling exercises just before practice. Performance of both groups was assessed by systematic observation during small-sided games before (Time 1) and 3 weeks after the intervention (Time 2). Results revealed no changes in performance for both groups ($F_{(1,15)} = 0.099, p = 0.757$). However, an interaction effect was observed when considering players' age ($F_{(1,12)} = 5.150, p = 0.042, h^2 = 0.300$). During this presentation, we will explain the differences between our results and those of various studies in the literature by covering the challenges associated with this pilot study. Sample size issue, identification of the appropriate performance indicators and future research perspectives will be discussed.

Validation psychométrique de la version arabe de la mesure de la force mentale

Prof. ISSAM EDDINE BEN CHELBI (Université de la Manouba), Prof. JAOUAD ALEM (Université Laurentienne), Dr. DR. DRISS BOUDHIBA (Université de la Manouba), Prof. SABEUR HAMROUNI (Université de la Manouba), Prof. Sabri Gaied Chortane (Université de la Manouba)

L'objectif de cette étude était d'évaluer la validité factorielle de la version arabe traduite du questionnaire qui mesure six composantes de la force mentale MTQ48 (Mental Toughness Questionnaire-48) selon les constructions théoriques du modèle en de Clough, Earle et Sewell (2002). Les 48 items évaluent les six facteurs suivants : (1) le défi DF; (2) l'engagement EN; (3) le contrôle de l'émotion CE; (4) le contrôle de la vie CV; (5) la confiance dans les habilités CH ; (6) la confiance interpersonnelle CI, ainsi que le score global de la force mentale (FM). L'échantillon était composé de 853 athlètes (444 hommes et 409 femmes), âgés de 14 à 27 ans ($M=20.38$, $SD=4.12$). Le coefficient alpha de Cronbach suggère que chacun des facteurs a une cohérence interne adéquate ($\alpha_{DF} = .475$; $\alpha_{EN} = .487$; $\alpha_{CE} = .428$; $\alpha_{CV} = .434$; $\alpha_{CH} = .496$; $\alpha_{CI} = .386$; $\alpha_{FM} = .720$). L'analyse factorielle exploratoire (AFE), utilisant l'analyse en composantes principales (ACP) avec la méthode de rotation PROMAX, a fait apparaître une bonne qualité d'échantillonnage selon l'indice Kaiser-Meyer-Olkin ($KMO=.991$) et selon l'indice de sphéricité de Bartlett de ($df = 1128$; $p < .001$), ce qui indique que l'AFE est appropriée. La corrélation de Pearson a révélé des corrélations significatives entre faibles et moyennes entre les facteurs conceptuels de Clough et al. (2002) et les facteurs obtenus ($R_{CH} = .486.48$; $R_{EN} = .477$; $R_{CE} = .520$; $R_{CV} = .155$; $R_{CA} = .342$; $R_{CI} = .530$). L'analyse factorielle confirmatoire (AFC) appliquée sur le logiciel AMOS a approuvée un bon ajustement statistique de la version traduite ($\chi^2 = 1146.332$, $df=1065$, $CFI=.927$, $SRMR=.063$, $RMSEA=.009$). En conclusion, nos résultats ont permis de proposer une mesure arabe valide et fiable de six facteurs de la force mentale.

What factors are associated with students' boredom experiences in PE lessons?

Dr. Masato Kawabata (National Institute of Education, Nanyang Technological University), Ms. Chiew Min Lye (National Institute of Education, Nanyang Technological University)

Background: Boredom is a prevailing experience among students in academic settings. The emotion is often accompanied by reduced effort invested in learning tasks and poor academic outcomes. Along with that, boredom experienced during Physical Education (PE) lessons was found to diminish the perceived value of the subject and subsequently lead to lower leisure-time physical activities. Thus, it is important to know why students get bored in PE lessons to prevent the undesirable outcomes. The present study aimed to explore possible factors that have contributed to students' boredom in PE lessons.

Methods: A total of 19 teachers (53% female) and 112 students (50% female) from two co-educational primary schools completed a set of questionnaires. It included measures such as class-related emotions during PE lessons, possible reasons for boredom, and strategies to alleviate the negative experiences. A focused group discussion was then conducted with 20 students to further examine the relationship between situational factors and boredom.

Results: Findings showed that overall, students highly enjoyed PE lessons and low levels of anxiety and boredom. However, 20% of the participants agreed that they often experience boredom in PE lessons. In relation to the experience of boredom, a multiple regression analysis revealed that five variables (opportunity costs, teacher dislike, being over-challenged, monotony, lack of involvement, and generalized boredom) were significant predictors of students' boredom scores. Further analysis of the predictors revealed that compared to male students, female students reported significantly higher scores for boredom due to opportunity costs, being over-challenged, and generalized boredom.

Conclusions: The findings from this study highlight that several factors of the learning environment could instigate boredom differentially. PE teachers ought to consider the set of significant predictors of boredom when developing instructional strategies aimed at alleviating the negative emotional experiences.

Winning conditions for the adoption and maintenance of healthy lifestyles in a long-term perspective, according to physical activity students

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Prof. Tegwen Gadais (Université du Québec à Montréal)*

The literature has not yet well documented the relative elements of the adoption of healthy lifestyle habits (HLS) over the long term. Researchers are now inviting to complete the numerous quantitative studies with qualitative or mixed estimates that would allow to better explain the conditions necessary for the adoption or maintenance of HLS over the long term. The present study is in line with these perspectives and seeks to understand the winning conditions for the adoption and maintenance of HLS. Semi-structured group interviews were conducted with three groups of university students (two in bachelor's degree in physical and health education (PHE) and one in master's degree in physical activity science). Through their training and experience, the participants developed a sense of observation and reflection in relation to this type of questioning. The focus groups were recorded and then analyzed using the conceptualizing categories method. The results identify certain dominant winning conditions in the adoption and maintenance of HLS such as the role of the family environment, the aspect of diversity and choice, the physical and social environment, autonomy and also mental health which is closely linked with physical health. These results could be modelled in the form of an ideal pathway, which traces the impact of winning conditions from childhood to adulthood. The originality of this study stands out, among other things, because of its innovative methodology, and therefore opens the door to future qualitative research in the field. Investigating pathways, considering the different phases of development of children and adolescents to identify factors of change and maintenance of HLS, now seems to be an interesting and necessary avenue for research in the field.

‘Supporting students with Special Educational Needs and Disabilities (SEND) in international education: An examination of teacher experiences in Thailand’

Ms. LAURA DAVIES (Loughborough University), Dr. DR. JANINE COATES (Loughborough University), Dr. Estelle Damant (Loughborough University), Dr. DR. ASHLEY CASEY (Loughborough University)

Despite the prevalence of international schools, little is known about how they cater for students with Special Educational Needs and Disabilities (SEND). Existing literature suggests that international schools have a tendency to fail to make provision for students with SEND (Pletser, 2016). This issue is further complicated by competing interpretations of SEND and inclusive teaching practices (Brown and Bell, 2014). It has been suggested that teachers in international schools may have very different expectations of student learning and behaviour, depending on their cultural background (Deveney, 2005).

This research investigated the impact of Thai culture, and the perceptions of SEND held by western and Thai staff, on the practice of inclusion in a British international school in Thailand. Grounded theory was utilised to analyse semi-structured interviews with teaching, leadership and support staff. Participants from different nationalities were purposefully recruited in an effort to gain a broad insight into cultural understandings of SEND and inclusion.

In interviews both Western and Thai staff conveyed that there was a lack of understanding and support for people with SEND in Thailand. Early analysis suggests that Western teachers hold a view that their home countries' provision for SEND pupils is 'superior' to that of Thailand. In contrast to western teachers views of Thai education and society more broadly, Thai teachers were highly supportive of the idea of inclusive schooling. However, they struggled to identify the gaps in provision at the school that were highlighted by their Western counterparts.

In conclusion, it appears that whilst cultural understandings of SEND differ significantly between teachers of different nationalities, the international school context may create a dichotomy wherein different perceptions of inclusion exist simultaneously. Without the establishment of an overarching, whole-school 'culture' of inclusion, there is a risk that individual cultural understandings may act as a barrier to best practice.

“Off to the playground;‘ - fostering pre-service teachers‘ knowledge of accessibility and potential barriers of school playgrounds via picture based examples

Mr. FREDERIK BÜKERS (Universität Hamburg), Dr. TIM HEEMSOTH (Universität Hamburg), Mr. CHRISTOPH HENRIKSEN (Universität Hamburg), Prof. CLAUS KRIEGER (Universität Hamburg)

A lack of accessibility of (school)playgrounds can limit opportunities for individuals‘ participation in physical activity, play, and sports. Consequently (school)playgrounds with little access can jeopardize the shared learning of children with and without disabilities as it is demanded in the current educational research. Assuming that PE teachers at schools in particular have an influence on the design and use of school playgrounds, it seems important that pre-service PE teachers develop an awareness of the importance of accessibility and learn to identify potential barriers of playgrounds.

In order to promote this awareness, the learning unit “Off to the playground;‘ was developed to be integrated in PE teacher education. The teaching concept draws on features of example-based learning to generate application-oriented knowledge. More specifically, the students look at photographs of playgrounds with more or less severe restrictions in terms of accessibility. In addition, the students read exemplary expert judgments with regard to the accessibility of the playground depicted. The expert judgments are based on a specific analysis scheme. The question is to what extent the students can internalize and apply this analysis scheme with regard to their own playground analyses. Test tasks before and after the learning unit on the one hand allow fruitful reflections to the students with regard to their learning progress and, on the other hand, allow to analyze the effectiveness of the learning unit from a scientific point of view. The presentation will first focus on how to identify barriers of of schoolyards and playgrounds, which we assume a core facet of the diagnostic competencies of teachers. Second, we present the teaching unit in more detail.

Poster Presentations On-Demand

2020 Physical Education Practicum Supervision Pivot: “Challenging, Challenging, Stressful”

Dr. DR. MISTI NEUTZLING (Bridgewater State University), Dr. DR. DEBORAH SHEEHY (Bridgewater State University), Dr. DR. KAREN RICHARDSON (Bridgewater State University)

Physical Education student teaching in the fall of 2020 was an uncertain proposition. Public schools in Massachusetts were not prepared for a safe return to in-person learning with rising COVID 19 infection rates. The start of school was delayed two weeks to allow K-12 teachers to prepare for remote, hybrid, or face-to-face instruction with social distancing and mask-wearing protocols. Darling-Hammond & Hyler (2020) note the critical importance for educators to learn to engage productively in remote, hybrid, and distance learning as they meet the social-emotional needs of students during a pandemic and beyond. The purpose was to understand university supervisors' (US) experiences mentoring student teachers (ST) as they pivoted to remote/hybrid learning models. Participants were seven USs, 17 STs, and three supervising practitioners (SP). Data sources were a) US and SP semi-structured interviews, b) practicum reflective responses, c) a 42-question ST survey, and d) digital artifacts. Data were analyzed qualitatively. Results: 1) “Challenging, challenging, stressful.” Supervision involved unanticipated challenges causing anxiety/ stress and required flexible, collaborative responses. 2) A support network among USs developed in response to the needs of STs who were frequently pivoting in their modes of delivery while coping with the emotional fallout of the pandemic. 3) USs served as liaisons. USs mediated relationships among SPs, STs, and PETE faculty as STs navigated remote/ hybrid learning. 4) USs used a growth mindset approach to support STs in achieving licensure outcomes. 90% of the STs were able to “design units of instruction that helped students develop many ways to think deeply about an activity or a problem.” In conclusion, preparing ST in the time of COVID required USs to foreground social and emotional wellness of all the stakeholders. Anxiety and stress ebbed and flowed throughout the semester; a rethinking of the practicum experience to match current needs remains.

Active children today, healthy adults tomorrow: Getting serious about physical activity and physical literacy in our schools

Mr. Steve McGinley (The University of British Columbia)

Physical activity is associated with many physical, mental, social and cognitive benefits for children. Children spend almost half of their waking hours in school for approximately 10 months/year, providing equitable access to the benefits of physical activity to a diverse demographic, it is an ideal setting for promoting physical literacy. Thus, comprehensive whole-of-school physical activity interventions are identified as one of the best investments to promote physical activity world-wide. To date, there is a paucity of evidence about initiatives that incorporate the broader construct of physical literacy into school-based physical activity interventions. While there is substantive evidence suggesting many barriers to teacher-level implementation, more evidence about how to implement innovative initiatives in real-world education settings is needed. This is further supported by the recent call globally for an investment in quality physical education to support COVID-19 recovery and calls for teachers and all actors in the sport, education, health and youth ecosystems to invest, implement, and advocate for quality physical education policy and programmes.

A multi-sectoral stakeholder group received funding from the British Columbia (B.C.) government to develop, implement and evaluate the content, materials, and approach for a multi-component school-based physical activity and physical literacy (SPA-PL) initiative prototype in B.C. elementary schools. Over the long term, the project aims to positively impact student physical and mental well-being by building the capacity of in-service and pre-service elementary teachers to support and deliver physical activity and physical literacy opportunities in the school setting.

Specifically, this research project, as a component of the overarching evaluation, will examine 1) the role and contributions of partnerships in the development and implementation of the SPA-PL project and 2) the effectiveness of the Summer Institute (professional development) and the overall impact on pre and in-service teachers' knowledge, confidence and practices.

Active living initiatives for chronic disease patients at structured sport level: a scoping review

Mr. Edwin Mathéi (University of Liège), Prof. Alexandre Mouton (University of Liège)

Regular physical activity is now well known as a good manner to improve health by limiting the risk of numerous chronic diseases such as stroke, obesity, type II diabetes or cancer (Gaber, C. E., *et al.*, 2011). This poster will describe the methodology we applied to put the light on the solutions that are offered to patients suffering from chronic disease to maintain an active lifestyle, according to the state of art of scientific literature.

To achieve this meta-analysis, we needed to pass through several steps. First step concerned the development of the research question (1). The studies inclusion step (2) in which studies were searched across databases (PubMed, SportDiscuss, GoogleScholar and PsychINFO). For each one we have coded the research question and used the same key terms. For the study selection phase (3), a multi-step screening strategy was chosen to select the studies that corresponded to our criteria. Two reviewers followed these steps in parallel to see if they came to the same number of studies included in the meta-analysis. Each study was then analyzed and coded during the data extraction phase (4). Then, statistical analysis (R software) were performed (5) to provide a multi-level approach to deal with dependency of effect size (Assink, M. & Wibbelink, C. J. M., 2016). After all these steps, we further analyzed and interpreted results (6).

This meta-analysis provided key results on the kind of activities that are the most effective to improve the maintenance of an active lifestyle for patients suffering from chronic disease. After passing through all these steps, we were able to provide interventions that promote the maintenance of an active lifestyle to the patient suffering from chronic diseases. This study stood as a “hyphen” between medical and sport environment in the support and the follow up of chronic patients.

An experimental study on the influence of public PE curriculum reform on College Students' Physical Exercise Behavior — Taking “healthy ECNU” public sports club as an example

Dr. DR. YANGUO YANG (College of Physical Education and Health, East China Normal University), Dr. DR. JUN CHEN (College of Physical Education and Health, East China Normal University), Prof. XIAOZAN WANG (East China Normal University), Mr. GUOWEI TANG (College of Physical Education and Health, East China Normal University, Shanghai)

Purpose: The purpose of this study is to verify the impact of “healthy ECNU” Public Sports Club on College Students' physical exercise behavior. **Method:** 630 college students was selected, including 308 students in 2018 Class ($n_{\text{male}}=121, 39.28\%$; $n_{\text{female}}=187, 60.71\%$) and 322 students in the 2019 Grade ($n_{\text{male}}=117, 36.33\%$; $n_{\text{female}}= 205, 63.66\%$). Taking “healthy ECNU” Public Sports Club teaching as intervention means and the experiment lasted for 3 semesters. Descriptive statistics, Chi square statistic and Multivariate ANOVA were used in analyses. **Results:** (1) After the experiment, there are significant differences in the distribution of the number of students of 2018 and 2019 in each stage ($\chi^2=29.499, p<0.001$); (2) the distribution of physical exercise behavior between males and females are significant differences in each stage ($\chi^2_{\text{male}}=27.701, p<0.001$; $\chi^2_{\text{female}}=35.469, p<0.001$); (3) There are obvious main effects of “time(T)” and “grade(G)” and interaction effects of “time * grade” in the pre-intention stage of College Students' physical exercise behavior ($F_T=112.368, F_G=40.535, F_{T*G}=16.492, p<0.001$), main effects of “time” and “grade” and interaction effects of “gender(g) * time” in intention stage ($F_T=7.863, p<0.001$; $F_G=11.785, p<0.01$; $F_{g*T}=3.883, p<0.05$), an obvious “grade” main effect in the preparation stage ($F_G=30.394, p<0.001$), an obvious “grade” main effect and “time * grade” interactive effect in the action stage ($F_G=31.174, P<0.001$; $F_{T*G}=11.500, p<0.01$) and an obvious main effects of “time”, “gender” and “grade” in action stage ($F_T=15.240, p<0.001$; $F_g=5.004, p<0.05$; $F_G=22.046, p<0.01$). **Conclusion:** The development of “healthy ECNU” public sports club can effectively promote the transfer of College Students' physical exercise behavior from low stage (Pre-intention stage, Intention stage) to high stage (Action stage, Maintenance stage). The longer the participation time, the more obvious the change of physical exercise behavior stage.

Key words: “Healthy ECNU” Public Sports Club; College Students; Physical Exercise Behavior

Ascending the Mountains – discovery of “Sinnperspektiven” in physical activity

*Prof. SWANTJE SCHARENBERG (FoSS/KIT), Ms. Franziska Beck (Friedrich-Alexander-Universität Erlangen-Nürnberg
Department für Sportwissenschaft und Sport)*

During spring lock-down 2020, teachers at the gymnasium in Oberwil/Switzerland invented a tool for their pupils: together they wanted to climb all the fourteen eight-thousand-meter mountains of the world. No matter what physical activity each member of the school made, it counted for the common goal. The vertical meters were compared between the forms, everybody had access to all the data. Because it was a motivational tool during the lock-down to stay active, teachers were encouraging every single pupil to be part of the whole idea (for the importance of teachers in the process of education see Hattie 2013). And it worked out perfectly – there was even an increase of physical activity according to subjective monitoring (for consequences of digitalization during lock-down see S-CLEVER study (2020/21)).

Behind the idea of the gymnasium in Oberwil, there are “*Sinnperspektiven*” (perspectives of senses), a German pedagogic approach established in PE (e.g. Kurz 2004), which will be explained as method. PE is much more than an obligatory subject, where physical activity is taught. While *Sinnperspektiven* can be seen in club sports also.

Yet, in times of Corona, German sports clubs suffer from the lock-down and complain about the missing of organized physical activity. They detect disastrous consequences concerning the healthy upbringing of children: a decrease of concentration, of social competence and a lack of language skills (for influence of sports on language skills see Beck 2019). Figures of physical activity during Corona in Germany (Woll et al. 2020) show an increase of all-day activity and sports for all, in the target group of children and adolescents. Teaching-Apps and you-tube videos are helpful for easy accessible programs, they attract a disperse audience, however, they lack of *Sinnperspektiven* and the important role of the coach for the surplus of education and positive youth development.

Assessing elementary school students' manipulative skill competency in China

Mr. JUN CHEN (East China Normal University), Dr. DR. XIAOZAN WANG (East China Normal University), Dr. DR. WEIYUN CHEN (University of Michigan)

Background/Purpose: This study aimed to examine how well 4th-grade students demonstrated manipulative skill competency assessed with selected the PE Metric Assessment Rubrics.

Methods: Participants were 4th-grade students at six elementary schools in China. A total of 535 4th-grade students were assessed soccer skills and 819 4th-grade students were assessed basketball skills using the PE-Metric Assessment Rubrics. Data were analyzed with descriptive statistics, independent sample t test.

Analysis/Results: For the soccer dribbling, passing, and receiving skill assessment, a total score of 9 indicated the Overall Competent Level. The students' soccer skills assessment mean score was lower than the competent level or above ($M = 7.041$, $SD = 3.1574$). 36.2% of 111 boys and 28.5% of 65 girls demonstrated the Competent Level or above in soccer skills. Further, the independent sample t-test indicated a significant difference in the mean score of Overall Competent Level between the boys and the girls ($t = -2.024$, $p = .043$). For the basketball dribbling, passing, and receiving skill assessment, a total score of 9 the Overall Competent Level. The students' basketball skills assessment mean score was lower than the competent level or above ($M = 7.294$, $SD = 3.2120$). 45.8% of 206 boys and 40.4% of 149 girls demonstrated the Competent Level or above in basketball skills. Further, the independent sample t-test showed the significant difference in the mean score of Overall Competent Level between the boys and the girls ($t = -4.405$, $p = .000$).

Conclusions: This study indicated that the 4th-grade students demonstrated lower than the Overall Competent Level in soccer and basketball skill assessments, and the boys significantly outperformed than girls on soccer and basketball skill assessments.

Building Equity Through Collaboration with Girl's Inc

Dr. DR. ANGELA BAILEY (Bridgewater State University), Ms. CHRISTINA OUELLETTE (Bridgewater State University),

Dr. DR. MAURA ROSENTHAL (Bridgewater State University)

Girls Inc. (GI) is a nationwide program that aims to empower girls through education, mentorship and advocacy. Bridgewater State University (BSU) is a nearby public institution of higher education that serves many gateway cities in the state of Massachusetts, including Brockton, New Bedford, and Taunton. Recently, a BSU collaboration between the Martin Richard Institute of Social Justice (MRISJ) and the Movement Arts, Health Promotion, Leisure Studies (MAHPLS) department successfully secured funding for an Americorps Vista during the academic year of 2020-2021 to work directly with GI.

Typically, the Taunton branch of GI serves 100+ girls, many from low-income and immigrant families, in after-school and summer camp programs based on national GI curricula. Due to high-risk community transmission, many girls learned 100% virtually from September to December 2020, and currently are in school twice a week. To adapt to the COVID environment, GI shifted their model and now provide a setting for 30 girls to attend an all-day supervised virtual learning program three days/week. The VISTA has been working to update national curricula to include health and physical education components.

To address the need for equity, diversity and inclusion in higher education, and building on the partnership between GI, MRISJ, VISTA and the MAHPLS department, this project proposes to conduct a series of focus groups in the spring of 2021 to understand the experience of participants with the virtual environment and gain insight into their interest in physical activity and health programming. The results of the focus groups will be shared at AIESEP and utilized to plan a service-learning opportunity between two courses within the MAHPLS department and GI. Students in *Health Promotion Strategies* and *Social Issues in Physical Education and Recreation* will create wellness lessons and activities to be delivered at Girls Inc during the fall 2021 term.

Capoeira: Could a cultural heritage promote inclusion at primary school in other cultures?

Mr. Diogo Marinho de Oliveira (Research Centre for PE and sports for children and adolescents),

Prof. SWANTJE SCHARENBERG (Research Centre for Physical Education and sports for children and adolescents)

A mixture of fight, dance, acrobatics, singing and music from Brazil called Capoeira has been inscribed as an intangible cultural heritage of humanity in 2014 by UNESCO. Especially children at primary school age (between 7 to 10 years old) find in this activity many attributes that facilitate them to develop their talents. More than just a sport, Capoeira has proven good results concerning inclusion, for example in social projects in Brazil, Haiti, Democratic Republic of Congo, Australia and Syria (Hast, 2019; Mom et. Al., 2019; Prytherch & Kraft, 2015; UNICEF, 2010 and 2015;). In this PhD-study Capoeira is transferred into a school setting in Germany. According to the objectives of education in primary school there, teachers should use playful forms or learning and working, to develop children's emotional, psycho-motoric, intellectual and social skills (Baden-Württemberg, 2014). 80% of PE is taught by teachers not educated for this subject. However, they are trained for a holistic education of pupils and pedagogical perspectives, no matter in which subject. The pedagogical potential of Capoeira for a holistic way of inclusion has already been proved in PE classes in primary schools such as in Brazil, Australia, Germany, Spain and Switzerland (Radicchi & Thompson, 2019; Benítez, 2014; Kraft, 2013; Gysel, 2013; Silva & Heine, 2008; Furelos, 2006; Silva, 2002; Souza, 2001; Freitas, 2001). In this study – work in progress – professionals, pupils and their parents in Germany are questioned to find out whether Capoeira would be a smart solution for all in the sense of positive youth development. The concept of one teacher for all subjects – as it is put into practice in several European countries - could be regarded as a chance to implement Capoeira in primary schools.

Keywords: Capoeira; Physical Education; Primary School; Inclusion; Music.

Centering the Native voice in Indigenous research: A methodological review

Dr. DR. JESSICA SIEGELE (University of North Carolina at Pembroke), Ms. Kaylee Hunt (University of North Carolina at Pembroke), Dr. Natalie Welch (Linfield University), Dr. Leah Fiorentino (University of North Carolina at Pembroke), Dr. Marian Wooten (University of North Carolina at Pembroke)

Research in Indigenous communities has a troubling history. Thus, Native communities and Indigenous people may be wary of outsiders who wish to conduct research within their communities (Tuhiah-Smith, 1999). Research with Indigenous people must consider ethical implications beyond the usual research standards. As marginalized groups have largely had their voices silenced, centering the Native voice in Indigenous research is paramount. To that end, the authors have engaged several methodological approaches that emphasize a collaborative research approach (Lassiter, 2005).

This presentation will describe the methods used to conduct research with Native athletes and Native students in both quantitative and qualitative research. Research with Indigenous people should be led by Indigenous researchers when possible. This approach aims to decolonize a research tradition that historically conducts research “*on* Indigenous people rather than *with* them” (Welch et al., 2019, p.100).

Hunt (Lumbee, North Carolina, US), a graduate student at a historically Native American institution of higher education, and Fiorentino are currently collecting data regarding Indigenous high school students' Indigenous identity and attitudes toward Native American mascots with participants from the Lumbee tribe in North Carolina. Welch (Eastern Band of the Cherokee Indian, North Carolina, US) and Siegele have conducted qualitative studies with Cherokee stickball players to explore the ways stickball connects the athletes to their ethnic identity. The presentation will include the primary researchers' personal reflections on undertaking research with fellow tribal members as participants. The authors will also present Hunt's experience with gaining tribal support and Welch's experience with a tribal IRB process. Understanding unique tribal cultures may also allow for traditional ways of knowledge transfer, for example, making space for storytelling in qualitative interviews.

Cognitive activation vs. movement time: Findings of a Participatory Group Model Building with PE stakeholders

Dr. CLEMENS TÖPFER (Friedrich-Schiller-Universität Jena)

Introduction

Cognitive-reflective dispositions are regarded as essential facets of pupils' physical literacy. Approaches such as cognitive activation or cognitive engagement can foster the development of this dimension (Wang et al., 2019). However, some studies show difficulties in the realization of a cognitive-activating PE. This article explores the question of what reasons PE stakeholders see in the (sometimes) scarcely cognitive-reflective PE.

Methods

Following the method of group model building (Bergmann et al., 2012) 35 stakeholders of PE (e.g. pupils, PE teachers, sports scientists) were asked about the reasons for a scarcely cognitive-reflective PE. The hypotheses were documented in discussion protocols and audio recordings.

Results

Movement time was dominantly listed as an important component of PE and at the same time understood as a 'counterpart' to cognitive activation. This is not only made clear by the PE teachers, but also by the pupils. In that sense, PE is also regarded as an instrument to compensate a lack of pupils' movement time during a school day. Furthermore, stakeholders see reasons partly in a limited didactic knowledge of the PE teachers. Both PETE and the current lack of further training opportunities are held responsible for PE teachers not being fully capable of teaching a cognitive-reflective PE.

Discussion

The present findings emphasize that the stakeholders' understanding of the goals of physical education sometimes diverges strongly from the educational demands of PE and largely ignore the promotion of knowledge acquisition and knowledge utilisation.

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Collaborative Online International Learning (COIL): A U.S.-Japan Virtual Exchange in Physical Education

Dr. DR. KAREN RICHARDSON (Bridgewater State University), Dr. NAOKI SUZUKI (Tokyo Gakugei University)

Through a groundbreaking COIL/Virtual Exchange (VE) rapid response grant by the Institute for Innovation and Global Education and the American Council for Education (ACE) Bridgewater State University (BSU) and Tokyo Gakugei University (TGU) engaged in an eight-week physical education VE. Faculty completed 1 month of training focused on quality-assured high-impact VE/COIL. The ImmerseU system developed by IIGE and Class2Class was used to co-create a detailed syllabus, to connect students, and to manage the collaborative course designed for students to develop an awareness of their worldview and how this relates to others' worldview when teaching physical education. Participants: 2 PETE faculty (TGU/ BSU); 15 TGU students in Pedagogy for PE, and 33 BSU students in Curriculum Development in Physical Education assigned into 8 teams. The VE included four, 2-hour synchronous class delivered in English (week 1, 3, 5, 8), and four asynchronous student team meetings culminating in group lesson plans addressing a shared challenge. Data were collected through class artifacts, weekly reflections, and final course reflections and were analyzed qualitatively. Categories of results were 1) Awareness of uniqueness in our own culture. "I realized that it is when we come into contact with other cultures that we can find the uniqueness in our own culture and way of thinking." 2) Communication challenges. "I felt frustrated that I could not communicate the way that I wanted." 3) Change in perspective about physical education. "Being able to meet and interact with students from Japan is something I never thought I would do." "I was exposed to a variety of values and ways of thinking my ideas about physical education have become more flexible." Consistent with O'Dowd (2018) the COIL/VE allowed for learner engagement to collaborate to achieve course outcomes with partners from other cultural contexts as an integrated part of their education.

Determining Turkish secondary school students' in and out of school time physical activity level on the basis of gender and provinces

Ms. NEHIR KAVI ŞİMŞEK (Middle East Technical University), Ms. SERAP SARIKAYA (Middle East Technical University), Mr. Metin YILMAZ (Firat University), Dr. M. Levent Ince (Middle East Technical University)

The study aimed to determine Turkish secondary school students in and out of school time physical activity (PA) level on the basis of gender and three provinces representing the country's eastern, central and western regions. A cross sectional survey study involving 1471 (743 girls and 728 boys) in 7th grade (11-13 years old) students were voluntarily participated in this study. The Physical Activity Questionnaire for Children (PAQ-C), a self-administered 7-days recall questionnaire, was applied to assess physical activity levels in school time (physical education (PE) class, recess and lunch) and out of school time (right after school, evenings and weekends). Independent samples t-test resulted that boys' PA level were higher than girls' in PE class, recess, lunch, right after school and weekends, $p < .05$. One-way ANOVA results showed a significant difference among provinces in PE classes, $F(2, 1407) = 5.33, p < .05$. According to Post-Hoc test, PA level of students in the Central region in physical education classes ($M = 4.09, SD = .98$) was significantly lower than from those in the West ($M = 4.30, SD = .82$) and East ($M = 4.25, SD = .96$) regions. In conclusion, the results of this study could be useful for teachers to differentiate their teaching environment to increase the level of PA of students in and out of school by gender and regions.

Developing Preservice Teachers' Reflection on Teaching Using Practice-Based Teacher Education

Dr. Xiuye Xie (Missouri State University), Dr. DR. PHILLIP WARD (The Ohio State University)

Background. Reflection on teaching is a critical practice for preservice teachers (PST) to develop lifelong quality teaching. Increasing evidence suggests practice-based teacher education (PBTE) is an effective approach in developing PSTs' adaptive competence in teaching. To adapt teaching, teachers must observe, reflect, and modify their teaching. To date, few studies have been conducted to examine PSTs reflection in PBTE. The purpose of this study is to understand what PSTs reflected on from their observations of own and peers' teaching using two PBTE pedagogical strategies, rehearsals and repeated teaching.

Methods. A case study design was used to examine five participants in physical education teacher education (PETE) major and enrolled in an introductory methods class in a PETE program in the United States. Students in this class were required to actively participate in a series of learning activities, including lectures, laboratory and field teaching, and video analysis of their own and peers' teaching in the laboratory during the semester. Data were collected from participant's eight reflection journals, with four journals from self-teaching video analysis and four from peer teaching video analysis. A guided question format was provided to each participant to reflect on their own and peers' teaching. Participants' responses to all reflection questions were summarized case-by-case and then examined across cases. Two trained researchers used the predetermined codes to analyze all the responses. An acceptable interobserver agreement (IOA) was achieved (IOA>85%) between two researchers.

Results. Five themes of PSTs' reflection on teaching were identified from the reflection journals: (1) Precise instruction; (2) Efficient transition; (3) Specific feedback; (4) Demonstration; and (5) Tone and voice. Participants' responses also showed an increasing understanding of the relationships among different teaching components.

Conclusion. It is suggested that PBTE can facilitate PSTs' reflections on a variety of teaching components and the relationships among them.

Digital technology in physical education - A Systematic Review

Mr. Florian Jastrow (Leuphana University of Lüneburg), Dr. DR. STEFFEN GREVE (Leuphana University of Lüneburg), Ms. Henrike Diekhoff (Leuphana University of Lüneburg), Ms. MAREIKE THUMEL (Friedrich-Alexander-University of Erlangen-Nürnberg), Prof. JESSICA SÜSSENBACH (Leuphana University Lüneburg)

Digital media is currently one of the defining topics in discussions about schools and teaching. There is also a wide range of research in physical education, e.g. health, gamification, wearable technologies or cooperative learning with ICT (Goodyear, Casey, and Kirk 2014). This raises the question, what are the potentials and limitations of empirical research findings in the use of digital media in physical education? This systematic review provides an overview of the English- and German-language state of research on the use of digital media in physical education. For this purpose, studies were included that were published between 2009 and June 2020 in journals, edited volumes, or as dissertations. The studies were searched in relevant databases using a systematic literature search, criterion-guided screening (Newman and Gough 2019), and transferred to the synthesis. The Systematic Review shows that exergames and video feedback as well as physical activity and motivation through the use of digital media are both much researched and discussed topics. The individual topics are often interrelated. The benefit of the digital medium for the goals of physical education is in the foreground in a large number of the studies. Only a few studies also specifically focus on learning via media, e.g. with topics such as data protection, or the effect of viewing the images taken on the students' self-concept.

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Digitalization in Physical Education from the Teacher's Perspective

Dr. Anne-Christin Roth (Technical University Dortmund)

Background and Purpose

Following Ronaldo on Instagram, posting a photo of a beach volleyball game at the lake, following American football in a live stream and recording one's own running route via an app and thus taking part in the virtual running group's challenge - the influence of digitalization on physical activity, play and sport in the lifeworld of students is often manifold. Furthermore, education policy is currently vehemently calling for digitalization as a development perspective for schools. As a result, the demand on physical education teachers to specifically stage digitalization in physical education is growing visibly.

Method

With the help of the 16 individual interviews conducted with physical education teachers at secondary levels in December 2019, the following research questions will therefore be approached:

- What are the attitudes of physical education teachers towards digitalization in physical education?
- What role does digitalization currently play in physical education?

The interview data were analysed using qualitative content analysis according to Gläser and Laudel (2010). According to the conference topic, the poster focuses on the influence of digitalization on teaching and learning in contemporary times from a teacher's perspective.

Results and Conclusion

The teachers estimate the importance of digitalization as high for their own lifeworld as well as for the lifeworld of the students. In addition, there is a lot of "superficial agreement" with regard to digitalization at school and in physical education. On the other hand, however, they express massive concerns about the negative effects of intensive use of digital media among students. They argue clearly in the direction of a displacement of physical activity by media consumption. This displacement theory is strongly represented in the popular media, but is not empirically proven (cf. Braumüller & Hartmann-Tews, 2017).

Discourse on masculinity and muscularity in physical education: An international narration

Dr. Ashley Phelps (University of New Mexico)

Background/Purpose: Conceptions of masculinity and muscularity in physical education exist from both teacher and student perspectives. This dominant discourse continues to hinder the participation of some male students in physical education. The main purpose of this study was to explore the role and international conceptualization of masculinity and muscularity in physical education through an extensive review of the literature. A secondary purpose was to explore the construction of masculinity and its effects on male participation in physical education.

Methods: A systematic review was conducted using scholarly databases. Articles published between 2000-2020 were identified. Search terms such as masculinity, muscularity, hegemony, gender, and inclusivity in physical education were used to generate as many peer-reviewed articles as possible. Male and female students (11-19 years old) enrolled in secondary physical education and male and female physical education teachers (21-58 years old) made up majority of the participant pool in this review. Books, supplements, presentations, dissertations, theses, and non-English articles were excluded. A total of 20 out of 37 studies were included.

Results: Four conceptualizations of masculinity and muscularity in physical education were identified in the literature: a) social construction of gender and masculinity, b) thoughts towards masculinity and muscularity, c) visual influences on masculinity, and d) physical construction and embodiment of masculinity.

Conclusion: Physical educators and PETE professionals must be cognizant of developing and maintaining positive learning communities that discuss critical discourses, such as hegemonic masculinity. To enact a gender-relevant gymnasium, physical educators must first understand the policies of gender and sexuality and the impact those policies have on their teaching before they can challenge those discourses. This study adds significance to the field of physical education by increasing preservice and inservice physical education teacher and PETE faculty member awareness towards masculinity discourses in secondary physical education.

Etude comparative des compétences émotionnelles entre karatékas tunisiens et étrangers

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L'objectif de cette recherche est de comparer les compétences émotionnelles « CE » des karatékas tunisiens et étrangers. Un échantillon de 200 participants (100 karatékas tunisiens et 100 karatékas étrangers) âgés entre 18 et 25 ans $M(25,86)$ $ET=(4,98)$ a été sélectionné. L'ensemble des sujets a complété la version française et anglaise du "Profil de compétence émotionnelle" PCE (Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013). Le test de fiabilité a montré une cohérence interne satisfaisante de l'échelle ($\text{Alpha} = .954$). Le test T de Student, qui consiste à comparer les moyennes de deux échantillons indépendants, a révélé qu'il existe une différence significative dans le score global de compétence émotionnelle ($t_{189} = 1.197$, $p = .0001 < .05$). Par conséquent, on peut dire que les karatékas étrangers sont plus susceptibles de contrôler leurs émotions et leur compréhension d'eux-mêmes et des autres, de gérer plus facilement le stress quotidien et de réguler leurs relations avec les autres. Les résultats de nos recherches nous permettent non seulement de vérifier notre hypothèse, mais aussi de déterminer la relation entre les compétences émotionnelles et le niveau d'expertise des karatékas.

Examination of Turkish secondary school students' health-related fitness knowledge on the basis of gender and provinces

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Health-Related Fitness (HRF) Knowledge is considered one of the important prerequisites of developing healthy physical activity behaviors of children. Therefore, physical education classes might be the first step for establishing students' HRF knowledge at an early age. It is stated in the literature that the middle school students' HRF knowledge level are well below the levels specified in the physical education learning objectives (Keating et al., 2009). In addition, the research is limited related to students' HRF knowledge components in Turkey. This study aimed to examine Turkish secondary school students' HRF knowledge on the basis of gender and three provinces representing the country's eastern, central and western regions. The volunteer participants of this cross-sectional study were 1398 (697 girls and 701 boys) 7th grade (12-13 years old) students. HRF Knowledge Test for Secondary School Students, including cardiovascular endurance, muscle strength/endurance, flexibility, body composition, training principles, and general health knowledge components, was used to collect data for this study. The test was adapted and validated by Hunuk and Ince (2010) according to the Turkish physical education curriculum for secondary school students HRF Knowledge standards. Independent sample t-test's results revealed that the girls' HRF knowledge test scores were higher than boys' in the components of cardiovascular endurance, body composition, training principles and general health knowledge ($p < .05$). According to One-way ANOVA results, cardiovascular endurance, muscle strength/endurance, training principles, and general health knowledge score of students in the West region were significantly higher than in the East and Central regions ($p < .05$). As a conclusion, the results of this study can guide physical education teachers when designing their instructions on the learning domain including HRF knowledge components.

Exploring possibilities for implementing Movement-oriented Practising Model in online running PE lessons.

Mr. YONGJIN LEE (SNU), Mr. JUYOUNG RYOU (Seoul National University)

Background: We have witnessed how the body has been simplified in physical education against the times of Covid-19. As an excuse for the turbulent time, remote PE relies on dualism(mind/body) focusing on physical development like home workouts. Under this circumstance, the authors focus on the Movement-Oriented Practising Model(MPM) introduced by Aggerholm, Standal, Barker, and Larsson(2018) containing an existential philosophic rationale and guiding principles. MPM could shed light on the viewpoint again focusing on students' practices, which makes a contribution to the ongoing revitalization of physical education despite the pandemic crisis. This paper reports empirical findings from an investigation that the model was employed in remote learning. The aim was to explore educational possibilities for MPM during online running lessons.

Method: Action research was conducted with six eighth-grade classes that took part in online running lessons under lockdown measures in South Korea. Empirical materials were collected through teacher's diaries, online interaction records, various works produced by students, and most importantly teacher's reflections. Data were analyzed by the criteria that were informed in MPM's non-negotiable features.

Findings: The story of a struggled teacher is presented. It focuses on the education possibilities of MPM in online running lessons. Presented possibilities regarding 4 features(Aggerholm et al, 2018) discovered: Awareness about changing PE notion, The students' open-minded attitude to reflective practicing, Assimilation into process-centered assessment with new technologies, and Optimization for conversion process of 3Rs(running-reading-reflecting).

Discussion: The findings are discussed in relation to the philosophy and guiding principles of MPM. Specifically, (1)what aspects of remote learning facilitate students' reflection on their subjectivity, (2)how teachers manage confined time to provide individual students with sweet tension, and (3)how important a PE teacher should be a curator who selects quality materials for supporting students' meaningful reflection.

Conclusion:The findings regarding online running lessons accumulate empirical evidence for MPM.

Exploring the Process of Technology Integration in Physical Education Teaching

Mr. UNJONG LEE (University of South carolina), Dr. OKSEON LEE (Seoul National University)

Background: To date, technology has become a popular topic in research on teaching physical education (PE), dominantly focusing on its effectiveness and impact. With this regard, the significant role of in-service teacher education programs is well acknowledged. However, limited research has examined PE teachers who make use of technology in PE instruction.

Purpose: The purpose of this study was to explore the adoption process of technology in PE classes. Specifically, the researchers focused on PE teachers who enact the transition to infusing or to integrating technology. As a theoretical framework, Resource-based Learning theory provided a lens to investigate the PE teachers' characters and series of actions.

Method: This qualitative study included eight PE teachers who was working at secondary level and came to decide to use technology. Data were collected from in-depth interviews, observations, document analysis and field notes. For data analysis, the spiral data analysis presented by Creswell & Poth (2017) was used.

Finding and conclusion: Participating teachers' characters were categorized into three: early-adopter, positive-energizer, and sports-lover. Moreover, the analysis found that the process of technology integration consisted of three steps. The first step was realizing the needs; participants grew interested in technology, as an educational aid, to improve student learning, cover competencies for future, and enhance their professional development. The second step was checking feasibility. Through reflecting themselves and students' learning environments, participants explored opportunities to maximize the efficacy of technology uses such as teacher professional development and various supports from surroundings. The third step was setting up instructional tools. Based on the findings, this study helped to play a role as a milestone for pre-service and in-service teachers who want to practice technology integration in PE teaching.

Factors influencing professional identity: Chinese higher education teachers teaching in physical education teacher education (PETE) programmes

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Background and purpose: The exploration of professional identity can promote teacher educators' understanding and improvement of teacher education (Czerniawski, 2018). In this study, we explore how Chinese teachers, who are involved in physical education teacher education (PETE) programmes in higher education, understand their professional identity and the extent to which specific factors influence their professional identity as a teacher educator.

Methods: A sample of fifteen Chinese teachers involved in PETE were interviewed before five follow up interviews were conducted.

Results: Noting the diverse responsibilities and teaching to different groups of students, the majority of the participants perceived their professional identity more as teachers than as teacher educators. Pre-service teachers (PSTs) had a significant influence on the professional identity of teachers involved in PETE. This study also found that in the process of teaching, two significant turning points related to PSTs were the most significant factors promoting participants' professional identity as teacher educators. The first turning point is PSTs' school placement in their final years of a PETE programme. The second turning point occurred when PSTs secured a job as a physical education teacher following graduation.

Conclusion and implications: This study extended our understanding of the complexity of identifying as a teacher educator in a Chinese context and contributed to the literature on teacher educators' professional identity. Chinese teachers involved in PETE did not identify as teacher educators when they began educating PSTs. Their professional identity as teacher educators appears to have developed over time as they became committed to improving PSTs' teaching and learning. There is a need for future research on the extent to which the types of relationships between PSTs and teachers/teacher educators impact the professional identity of teacher educators.

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First aid education among primary school pupils: an exploratory intervention engaging family members

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In the countries where first aid gestures are taught, death rate after a heart attack is lower than in other countries. In Belgium, one out of two citizens know what an AED is and only 30% of them knows how to use it. However, we know that schools could play an active role to increase awareness and competences about first aid, even with children aged from 8 to 12 years old. As children love to share their knowledge to their relatives, first aid competences learned during PE classes could also be transferred to the family.

The purpose of this study was to assess the impact of a first aid cycle provided by physical education (PE) teachers in the municipality of Chaudfontaine (Belgium) on 5th and 6th grade children and their relatives.

PE teachers from Chaudfontaine (n=6) followed a one day first aid training prior to the teaching, including a pedagogical presentation of the cycle adapted to the existing curriculum. This cycle was composed of 3 lessons and some homework to do with their relatives.

Pre-cycle and post-cycle questionnaires assessed the evolution of the knowledge of children and their relatives. Results showed significant improvements of students' knowledge from pre-cycle (mean score: $6.26 \pm 3,04/20$) to post-cycle (mean score: $14.52 \pm 2,2/20$). From the relatives' perspective, more of them felt afterwards ready "to save lives", assuming a possible knowledge transfer from children to their relatives.

Graduate-Level Pre-service PE Teachers Perception of the Role of Social Media in Professional Development Learning

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Introduction : Abundant researches have been documented that it has been becoming popular for physical education (PE) teachers to embrace social media for professional development learning (PDL). However, there are few researches focus on pre-service PE teachers at graduate-level. The purpose of this study was to specifically explore graduate-level pre-service PE teachers' perception of the role of social media in PDL in China.

Method : By adopting a qualitative approach, 43 graduate-level pre-service PE teachers (28 male and 15 female) from a PETE master program in a large university near Shanghai China participated in this study. Each participant was finished the semi-structured interview, a total of 9627 words and sentences were collected and sorted into different categories systematically by deductive data analysis.

Results : Five themes emerge about their perceptions regarding the role of social media in PDL: (a) Providing cutting-edge teaching ideas, including national policy documents, the international frontier, the status of teacher development; (b) Revolutionized teaching practice, like opportunities for presentation, the practice of teaching reform, enhancing students' learning, supplementing the skills; (c) Learning style optimization, including obtaining materials, cost savings, convenient and ubiquitous, available for repetition; (d) Collaboration and interaction, like expert guidance, peer teaching, interacting with students and their parents, exchanging resources; (e) Professional beliefs, concluding responsibility, enterprising attitude, professional ethics, sense of initiative; (f) Various deterrents like unfocused information, time for entertainment, the accuracy of shared information, prejudice curing.

Conclusions : This study shows that there are five aspects and different aspects may play a different role in graduate-level pre-service PE teachers' perception of the role of social media in PDL. Given the findings, this study recommends that college programs should provide appropriate courses and activities and help those PE teachers to know what is the real role of social media in PDL.

How family environment to affect gross motor skills of early children: the evidence from China

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Purposes: with the development of information technology, physical activity (PA) participant is sharply decreasing that leads decline in gross motor skills (GMS) for children. Studies show that parents' cognition and physical behavior is significant related to children's gross motor skills. This study examines the relationship between family environment and gross motor skills in the growth of young children.

Methods: a total 228 early children aged 3-6 years old and 228 parents are recruited to participate in this study. Early children's GMS is tested by Gross Motor Development Test (TGMD-3) that includes 6 mobility skills and 7 manipulation skills measuring the level of large muscle movement development. Parents are invited to fill a structured questionnaire to investigate family environment such as parents' PA participation, their attitude and cognition children's PA behavior, family income and education background.

Results: the development of mobility skills overall is better than manipulation skills, but significant gender differences are not found in GMS in every age group. Parents' education level has a significant impact on the development of children's GMS. Compared with higher education level, children whose father with lower education level have significantly higher scores in hand-ball movement ($P < 0.05$). That also goes for mother's education level. Children who are mainly accompanied by their parents have significantly higher scores of TGMD-3 in mobility skills, manipulation skills, and total performance than children who are mainly accompanied by the elderly of the next generation ($P < 0.05$). Otherwise, children whose parents with active lifestyle and positive attitude toward PA have higher total and average scores in TGMD-3, but that result is not significantly different ($P > 0.05$).

Conclusion: family environment in parents' education level and parents' attitude toward PA behavior are significantly related to early children's gross motor skills.

How to promote the good development of physical literacy for the disabled

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Introduction: to train individuals with good core literacy is the global trend of training talents, and the cultivation of the sports quality of individual's physical and mental health and high quality of life is closely related to the present from around the world to the ordinary people and the cultivation of the sports quality is steady development of disabled sports literacy cultivation remains to be further explored. This paper mainly explains the factors affecting the development of sports literacy for the disabled from the theoretical level and how to promote the good development of sports literacy for the disabled.

Methods: This paper mainly uses theoretical analysis method, according to the life needs of the disabled to determine the most need to form the physical literacy, and from the perspective of training, summarize the factors that affect the training of physical literacy for the disabled, and give effective training methods, in order to promote the development of physical literacy for the disabled.

Results: The factors affecting the cultivation of physical literacy for the disabled included (a) their own sports concepts; (b) Economic basis; (c) Different physical conditions. Solutions include:(1) The disabled need to establish the correct concept of physical literacy psychologically; (2) The community where the disabled live shall provide the disabled with various special sports machinery and equipment suitable for their exercise; (3) State sports organizations shall train a group of physical literacy trainers who are proficient in the living habits of disabled persons, and encourage disabled persons to participate in the training to help them achieve success.

Implementation of online psychomotor activities for children aged from 3 to 6 years old during the lockdown period in Belgium

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Introduction

Physical activity (PA) recommendations suggest that children aged from 3 to 5 years old should perform at least 3 hours of varied PA using fundamental movement skills (FMS) every day (ANSES, 2016). In Belgium, 96% of children from 3 to 5 years old manage to reach these recommendations (Wijtzes et al., 2016), mainly thanks to psychomotor activities offered in school. However, the decreed lockdown forced the closure of schools. Aware of the need of FMS development (Stodden et al., 2008), we proposed online activities for confined children. Since the literature (Xu et al., 2015) highlights the influence of parental factors, the aim of this paper was, on one hand, to examine parents' interest and habits towards PA, and on the other hand, to observe the impact of this innovative approach on children's reported PA and perceptions.

Methods

21 children took part in daily online activities for two weeks. Each activity consisted of perceptive-motor games specifically designed to meet children's FMS and perceptive skills development needs. Two modalities were used: synchronous (live teaching) or asynchronous (recordings). Parents filled out questionnaires about PA, children's perceptions and perceived learning before (T0) and after the intervention (T1). They also completed a daily qualitative and quantitative PA logbook.

Results and conclusions

Results showed children's positive reaction from the perceived pleasure perspective (n=18). When analyzing the participation, children repeated the active games (15 minutes each) 3 to more than 5 times a day resulting in an average of 1 hour a day of reported PA. Regarding parental support, 11 parents out of 12 labelled PA as essential and nine of them declared it as effectively creating opportunities to move. Even if these online activities cannot replace in-person lessons due to motivational and learning aspects, they constitute an interesting alternative during this pandemic.

Implementing Whole-of-School Health programming during the COVID-19 pandemic

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Background/Purpose: Comprehensive, whole-of-school approaches have been utilized in the U.S. to improve students' health. The COVID-19 pandemic resulted in wide-spread school shutdowns forcing educators and health experts alike to re-conceptualize their approach for providing students with health curriculum and opportunities to engage in physical activity (PA) in an online environment. Little is known about virtual whole-of-school programs, including their contribution to physical education (PE). The purpose of this study was to better understand DSHINES program implementation after moving from a traditional face-to-face program to an online program. A secondary aim was to better understand student's health and PA behavior during the COVID-19 pandemic.

Methods: DSHINES delivered virtual programming to reach students and families throughout the school shutdowns beginning in Spring of 2020 continuing through Fall of 2020. Weekly curricular content (PA and nutrition) was provided across 15 schools. Students (N=1768, M=54%) completed a survey in the Fall of 2020 that described their current experiences in the program as well as their current health behaviors. Frequency data and descriptive statistics are provided.

Results: Program implementation in an online environment will be discussed. For self-reported student PA engagement, 51% of students engaged in a minimum of 5 days or more of PA, with 45% stating that they participated in 5 days or more of moderate to vigorous PA. Over 62% of students reported that they felt the virtual PE lessons would be fun, and 74% believed that the lessons would improve their overall health. For the one-day healthy eating recall, 81% of students reported eating green vegetables, and 85% reported eating fruit.

Discussion: Implications of online whole-of-school programming will be discussed as well as health behaviors of students during the pandemic. This is important given the lack of data around virtual health programming for youth and families during the COVID-19 pandemic.

Incorporating Sport Education within a physical education sports club in China – A self-determination perspective

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Mr. SHU ZHOU (Hubei Normal University)*

Background

A club-based physical education (PE) emerged recently in Chinese universities to provide more flexible time and attendance options for college students. This study investigated the inclusion of the Sport Education model into a basketball club on to students' self-determination, enjoyment and effort.

Methods

Students from one basketball club (N=155) participated in this study. Following the first five weeks of the 16-week semester, two options were offered to students. These were (i) to participate in a Sport Education season (chosen by 130 students) or (ii) participate in individual practice and occasional social games (chosen by 25 students). The Sport Education season consisted for five weeks training and pre-season matches, followed by an official game season. Students' relative autonomous motivation index (RAI), self-determination, enjoyment and effort were measured pre- and post-club. Analyses of variance with repeated measures were conducted across groups. One logistic regression was performed to investigate the potential factors for joining the Sport Education season or continue individual practice.

Results

There was a significant main effect for time for all measured variables, indicating the students in both groups reported higher levels of autonomy, relatedness and perceived competence, as well as effort and enjoyment. While effect sizes for the Sport Education cohort were slightly higher, there were no significant differences between these students and those who elected the other option. The logistic regression model was statistically significant, $\chi^2(1) = 8.49$, $p = .004$, and the model correctly classified 83.9% of cases. For each unit increase in a student's perceived basketball competence, that student had 1.7 times higher odds of participating in Sport Education.

Conclusion

Giving students choices within a club-based basketball PE has a positive impact on their motivation profiles, particularly given that students' perceived competence has been found to play a critical role in predicting engagement in physical education classes.

Interventions to Increase Moderate-to-Vigorous Physical Activity in Elementary School Physical Education Lessons: Systematic Review

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BACKGROUND: PE can play an important role in promoting students' MVPA level in school, but previous studies have shown that this potential is not being realised because PE lessons are typically not as physically active as they could be. Achieving the WHO recommendation of at least 60 mins of MVPA daily will improve public health, facilitated by making PE more physically active. Doing so should also be equitable since all children attend school.

Aims: To synthesise recent evidence on interventions to increase Moderate-to-Vigorous Physical Activity (MVPA) content of Physical Education (PE) in children age 8 to 11.

METHODS: A search of 6 databases was conducted in December 2019. Controlled intervention studies were included so long as they used objective measures of MVPA. Methodological quality was assessed using the appropriate Joanna Briggs Institute (JBI) Checklist. Random effects meta-analysis was used where appropriate.

RESULTS: Of the 5459 records, only five studies met all inclusion criteria, reporting on 1452 participants; three Quasi-Experimental studies and two RCTs. Meta-analysis was possible from 4/5 studies: the mean difference between intervention and control groups at follow-up was +14.3% of lesson time in MVPA (CI 2.7 to 25.8).

CONCLUSIONS: All studies in this review reported a favorable intervention effect upon increasing children's MVPA, suggesting that efforts to increase the MVPA content of elementary school PE are achievable. All studies had a focus on MVPA (health) outcomes. Two studies had PE pedagogical objectives and developed teaching effectiveness by providing teacher professional development programs (in-service) and the interventions were based on theoretical framework of self-determination theory. Two studies used PE specialists to deliver the interventions and one study used a pilot fitness program.

Investigating the influence of the caring climate on students' competence, value, pride, and shame in high school physical education.

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Background and purpose: Positive social interactions are essential for creating effective learning environments in physical education (PE). The social-emotional climate created by PE teachers is also a central tenant for understanding student motivation and behavior. However, investigations into the caring climate (i.e., listening, attending, supporting, providing empowerment) in PE contexts is limited, especially in terms of how it relates to students' personal beliefs and emotional experiences. Therefore, this study investigates relationships among students' beliefs about caring climate, motivation, and emotions in PE. **Methods:** High school students ($N=638$; 55% Female; 81% Freshman/Sophomores) from the Northeastern and Southeastern US participated. All subjects completed surveys regarding their beliefs about the caring climate in PE, self-appraisals of competence and value, and pride and shame. Confirmatory factor analysis (CFA) and structural equation modeling (SEM) were used to evaluate relationships. **Results:** CFA and SEM ($CFI= .921$; $TLI= .909$) findings supported the factor structure of the constructs. The SEM results showed that the caring climate predicted both motivation and emotions, intrinsic value ($\beta= .40$; $R^2=.16$), extrinsic value ($\beta= .21$; $R^2=.05$), competence ($\beta= .22$; $R^2=.05$), pride ($\beta= .43$; $R^2=.19$), and shame ($\beta= -.31$; $R^2=.10$). **Conclusions:** The caring climate was positively linked student motivation and emotion. Therefore, teacher training should emphasize strategies related to creating a caring climate such as modeling positive communication, showing empathy, and reducing external pressures. Overall, our findings suggest that secondary PE teachers should consider abandoning overly competitive climates and focus on providing support through individual pursuits in class which may increase positive motivation and emotion. It is likely that these steps are more suitable for those transitioning into adulthood and may lead to individuals choosing active pursuits outside of PE.

Investigation on the Present Situation and Influencing Factors of College Students' Participation in Extracurricular Sports Activities

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Introduction : Extracurricular sports activities play an irreplaceable role to improve students' physical literacy. The purpose of this study was to investigate the current situation of students' participation in extracurricular sports activities in East China Normal University (ECNU), analyzes the reasons and puts forward promotion strategies, aim to improve the organization and management of extracurricular sports activities.

Method : Using a questionnaire to investigate the 178 students in ECNU, Shanghai. Descriptive statistical analysis were used to explore the situation and influence factors.

Results : (a) 66.4% of the students are interested in sports, and males are significantly higher than females. (b) 46.62% of the students participate in extracurricular sports activities in the afternoon, and 35.39% in the evening. 56.74% of the students can maintain the duration of each activity within 30-60min. (c) 44.94% of students prefer group activities, 38.20% prefer to participate alone, seldom students participate in unified activities organized by class or university(9.55%). (d) The university's sports programs are mainly carried out in football, basketball and volleyball. 39.89% of university students think there is no PE teacher guidance when doing exercise. (e) The mainly factors that affect the students' participation in extracurricular sports activities include heavy course tasks, large proportion of daily time spent on the Internet, lack of field equipment, single activity content and heavy social work.

Conclusions : College students generally have a high interest in participating in sports activities, and the purpose of exercise is clear. The time arrangement is mainly concentrated in the afternoon and evening, and most of the students can keep the time between 30-60 minutes each time they participate in sports activities. It is suggested that universities should pay more attention to extracurricular sports activities, set up diversified activities, improve facilities and increase extracurricular sports instructors.

La motivation autodéterminée des adolescents en lien avec la pratique des activités physiques durant leur cours d'éducation physique et à la santé

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Une baisse de l'activité physique marque la période de l'adolescence (Balaguer et al., 2017; Dishman, Dowda, McIver, Saunders, & Pate, 2017). L'école est un milieu d'éducation et de transmission de valeurs idéales pour promouvoir et développer la santé des jeunes (Brown et al., 2017; Carlin et al., 2015; Demetriou et al., 2019). Considérant que la motivation est la base de l'adoption des comportements, comment peut-on motiver les adolescents durant leur cours d'éducation physique et à la santé pour maximiser les retombées positives sur leur santé et leur bien-être? La motivation autodéterminée favorise la motivation intrinsèque et le soutien à l'autonomie qui influencent positivement l'adoption des comportements de santé à long terme. L'enseignant en éducation physique et à la santé est reconnu pour influencer positivement les adolescents à augmenter la pratique d'activité physique dans le cadre de son cours. Dans un but d'optimiser la motivation, un volet interdisciplinaire a été développé afin de favoriser la mise en place d'actions soutenues en lien avec l'activité physique et ce, tout au long de l'année scolaire. Un programme basé sur la motivation autodéterminée a été créé et mis en place dans une école secondaire au Québec. La présentation de cette affiche doit présenter deux objectifs de cette étude: 1) Examiner les retombées d'un programme basé sur la motivation autodéterminée et la pratique d'activité dans le cadre du cours d'éducation physique et à la santé; 2) Examiner la corrélation entre la motivation autodéterminée et la pratique d'activité physique des adolescents. Les résultats, une conclusion et les perspectives liées à ce programme seront également présentés.

Learning in a high autonomy climate volleyball club: The impact on Chinese student's motivation and engagement

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Background

Chinese universities emphasize a teacher-centered learning style in their physical education (PE) programs, which results in lower levels of students' motivation and engagement. In efforts to counter this, an innovative form of college PE called "the PE club" has appeared recently in China. Examples of innovations include the choice of attendance times (clubs are offered multiple times per week), possibilities for online learning of content, and attendance at off-campus sporting events for credit. This research aims to investigate the impact of two forms of club organization on students' autonomous motives, perceived effort and enjoyment.

Methods

Two hundred students from two volleyball clubs participated in this study. One club was designed as a high autonomy climate, while the second adopted the skill-driven structure as a control. In the high autonomy format, students chose to participate in either official games, unofficial/social games, or focused skill practice. The control club students spent 45 minutes in teacher-centered instruction first, then 45 minutes in practice or pick-up games. Students' relative autonomous motivation index (RAI), self-determination, enjoyment, and effort were measured pre- and post. An independent t-test compared attendance at the two clubs, while analyses of variance with repeated measures were conducted on the psychological variables.

Results

The high climate autonomy volleyball club students attended significantly more than the control ($t = -10.5, p < 0.05$). The result indicated that all participants' RAI, autonomy, relatedness, and perceived competence, effort and enjoyment significantly increased after the intervention, with the high autonomy climate club reported significantly greater gains except RAI.

Conclusion

Overall, the idea of a sports club appears to have the potential for improving the overall experiences of Chinese students' physical education experience. However, even greater gains are seen when specific autonomy-supportive structures are included in the design of the club.

Outdoor physical education: practices and perceptions of physical education teachers in the context of COVID-19

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Introduction: The COVID-19 outbreak had an adverse impact on the movement and play behaviours of Canadian children and youth (Moore et al., 2020). This situation has led physical education (PE) teachers to find new ways to teach students. Among the various options, outdoor education seems to have been favoured by many. Learning in outdoor contexts seems to encourage physical engagement (Mygind et al., 2016) and physical engagement seems to be greater in outdoor than in indoor context (Pasek et al., 2020).

Objective: Provide a portrait of the current situation of outdoor PE practises in elementary and secondary schools and document their effects on students.

Methods: A sample of primary ($n = 187$) and secondary ($n = 92$) PE teachers in the province of Quebec (Canada) completed an online survey that identified their outdoor PE practises and perceptions of the effects on the students. The frequency, duration, locations and challenges associated with outdoor PE teaching practices were characterized. Perceptions concerned students' physical activity intensity, sedentary behaviours, learning, motivation and well-being.

Results: Most PE teachers perceived that outdoor education had a positive or very positive effect on students' learning (89.2%), motivation (91.4%), attention (55.9%), well-being (80.3%) and physical activity (87.8%). The top three most mentioned reasons for doing outdoor physical education in elementary and secondary school were to have more space, connect young people to nature and do sports.

Conclusion: While outdoor education currently represents a strategy to reduce the risk of the spread of COVID-19, it has many other widely documented benefits (Kuo et al., 2019). This study allowed to document outdoor PE practises in the context of the pandemic and to collect the perceived benefits. These data, we hope, will bring more researchers to study outdoor physical education practises in order to better support PE teachers in their implementation.

Patterns of Negotiation Between Preservice Teachers and Students During Skill Themes Units

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Background and purpose: Previous negotiation work within physical education has been primarily qualitative. McEntyre and colleagues (2019) demonstrated that qualitative work can be built upon through systematic observation. Previous research has not examined differences in patterns of negotiation for various skill themes taught. The purpose of this study was to produce negotiation profiles for preservice teachers (PTs) as they taught skill themes. The research questions were: (a) What types of negotiations between PTs and students occurred during skill themes units?; (b) To what extent did negotiations occur?; and (c) How did negotiations differ across different skill themes?

Method: Participants were four PTs from a university physical education teacher education program. The PTs taught skill themes of catching/throwing; chasing, fleeing, and dodging; dance/creative movement; kicking; and striking. All 44 lessons were coded using the Negotiation Instrument (McEntyre et al., 2019). Descriptive analyses were completed and Kruskal-Wallis tests were utilized to determine differences in negotiations across skill themes.

Results: One thousand twenty-three negotiations were coded across 44 lessons. Descriptive analyses revealed that types of negotiations were similar to previous studies. The majority of student-initiated negotiations were negative and unsuccessful, while PT-initiated negotiations were primarily positive and successful. Focus was the only element of negotiation affected by skill themes [$H(4) = 11.616, p = .020$]. Pairwise comparisons revealed differences between dance/creative movement versus kicking ($p = 0.03$); dance/creative movement versus catching/throwing ($p = .004$); and chasing, fleeing, and dodging versus catching/throwing ($p = 0.01$).

Conclusions and implications: There were double the amount of negotiations when compared to a similar study on the sport education model, likely due to the direct instruction employed. Further, the difference in focus across content may be due to the PTs' comfort with content taught. Replications of this study are necessary to determine the degree to which results generalize.

PE teacher students' beliefs regarding 'Multi-perspectivity'

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Background:

'Multi-perspectivity' is considered a fundamental teaching principle of PE in Germany. 'Multi-perspectivity' comprises teaching PE under several pedagogical perspectives (e.g. cooperation; health) in order to enable meaningful engagement in physical activity (Balz & Neumann, 2005). Beliefs are crucial for professionalisation, as they guide teacher action and act as filters and frames in the reception and integration of new information (Fives & Buehl, 2012).

Purpose:

The study examined first year PE teacher students' beliefs regarding 'Multi-perspectivity'.

Methods:

Three group discussions were conducted with a total of 13 students. Participants were requested for joint lesson planning with the content of playing basketball – first without and later with video input on curricular guidelines. Data was analysed by means of thematic analysis (Braun & Clark, 2020).

Findings:

Collectively shared and stable beliefs were that PE should qualify and motivate pupils to play basketball in a standardised way. "Cooperation," "Performance," and "Competition" were taken as main perspectives and their ambivalent nature was discussed. These beliefs were briefly irritated throughout the first encounter with 'Multi-perspectivity' in the video. However, a systematic integration of 'Multi-perspectivity' didn't occur.

Conclusion:

Results show various implications for professionalisation in PETE with regard to 'Multi-perspectivity' (e.g. specific perspectives; ambivalence).

Literature:

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Physical Activity and Lifestyle Habits of Adolescents during School Closures due to COVID-19 Pandemic: results of the SUGAPAS Project

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The lifestyle of children and adolescents during the COVID-19 pandemic has been affected dramatically by restrictions, causing a substantial decrease in physical activity (PA) and extensive increase in sedentary activity time. The purpose of this study was to investigate PA and lifestyle habits of adolescent students in a sample of European countries involved in the SUGAPAS project (*Supporting Gamified Physical Activities in & out of Schools*), an Erasmus+ funded project aiming to design and implement mobile games which should trigger students' health-related habitual behaviour.

In total, 948 adolescents (boys n=473), aged 12-17 years, from Lithuania (n=214), Greece (n=143), Cyprus (n=156), Spain (n=196), and other EU countries (n=239) volunteered to participate in this survey which was conducted online due to the ongoing pandemics and related school closures. In order to evaluate PA and lifestyle patterns of the respondents, a two-part questionnaire was used: to estimate roughly the frequency and duration of involvement in PA for a typical week as well as perceived level of fitness (1), and the weekly frequency of participation in 27 different leisure management activities (2).

As a result, a vast majority of the participating adolescents perceived that they are comparatively of average or lower level of fitness and fail to accomplish the international guidelines of PA for health. The analysis of leisure-time management further revealed that the participating students prefer mostly sedentary activities (meetings with friends, social networking, using screens for entertainment, etc.) instead of choosing sports and active recreation.

Consequently, there is an urgent need for implementation of physically active lifestyle interventions to minimize the negative impact of school closures due to COVID-19 pandemic on students' health. One of such strategies may be based on the results of the SUGAPAS project that provides a digital tool to students allowing them to decide for a healthier lifestyle.

Preservice Teachers' Perceptions toward Theory and Practice of Teaching Early Childhood Physical Education

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Practicum experiences embedded in physical education teacher education (PETE) courses aim to provide preservice teachers with authentic pedagogical practices with constant opportunities for reflection on teaching. This study analyzed how preservice teachers perceived their development of knowledge base acquired in lectures while experiencing teaching in a public preschool. Participants were 18 preservice teachers enrolled in two Early Childhood Physical Education courses from a PETE program in a Brazilian public university. Data were collected through focus group interviews. Data analysis was conducted through thematic categorical content analysis using a hermeneutic perspective to code the internal structure of the theme and their relationships. Two main themes emerged from data analysis: (a) practice beyond theory, and (b) identification of knowledge base. The results of this study confirmed the practicum experiences had the potential to link knowledge and practice; by organizing, inquiring, refining and producing knowledge about teaching. The participants reported that new perspectives of knowledge were developed throughout the semesters because of opportunities to teach and observe peers' lessons in multiple occasions. Multiple realistic teaching experiences were instrumental for the preservice teachers to connect and reframe their knowledge, and to handle challenging teaching episodes in new and more effective ways. Participants indicated that the experience in teaching young children in a realistic setting enhanced their value to improve: (a) knowledge of the content specific to early childhood, (b) knowledge of students (e.g., background and developmental levels), and (c) their knowledge of pedagogical practices (e.g., teaching styles). The findings also show that discussing the consequences of their pedagogical choices and actions during post-lesson group reflections had a positive impact in their understanding about how to teach. In conclusion, this study suggests that the partnership between university and school was crucial for the preservice teachers' development of knowledge base.

Professional Development and Changes in Teachers' Decision Making: A Pilot Study

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Current reform efforts to improve school-based physical education require quality and continuous professional development (CPD) for teachers. Physical education scholars have argued CPD is crucial for teacher change because it provides opportunities for knowledge enhancement, reflection on teaching practices, and community building. However, few studies have examined the role of CPD on classroom teachers' decision-making related to physical education. In California, K-5 schools often charge classroom teachers to provide physical education instruction despite receiving minimal college and in-service training. Therefore, this pilot study explored classroom teachers' decision-making changes due to participating in a state-funded CPD initiative.

We employed a qualitative methodology, using visual methods to capture teachers' decision-making changes related to physical education instruction. Specifically, we used participant-generated visual diaries and focus-groups interviews as our data sources. Participants were four elementary classroom teachers in rural California. The CPD initiative consisted of a three-day summer institute and two follow-up sessions during the Fall semester. Sessions were designed to build a community of learners and enhance teachers' content and pedagogical content knowledge.

Participants created their visual diaries electronically between sessions and debriefed their work in focus groups during the follow-up days. To make their visual diaries, teachers used photos and captions to portray any changes in their physical education instructional decisions.

The project focused on standards-based instruction and followed a teachers-teaching-teachers model. Learning experiences emphasized hands-on tasks, reflection, dialogue, and peer critique. Teacher leaders, university professors, and a state-wide physical education coordinator facilitated the CPD sessions.

Findings revealed three themes: a) A focus on standards-based instruction facilitated teacher's change; b) Teacher change is a time-consuming process, and c) Involvement in a community of learners can be a powerful source of change. This study's findings imply that effective CPD is an ongoing and social process that includes collaborative opportunities within learning communities.

Responding to diversity in physical education: An analysis of the Finnish national curriculum

Mr. CHRISTOPHER MIHAJLOVIC (University of Vienna)

Background:

Previous research has revealed a discrepancy between the ideology of inclusive education policies and the curriculum content and assessment in PE. The criteria in many PE curricula refer to a certain performance in PE and were only reachable by a limited number of pupils (Ruin & Giese, 2018; Haycock & Smith, 2010). This project draws attention to the implementation of the new core curriculum in Finland which has been progressively introduced on school level since August 2016. Although the Finnish education policies are driven by the equity agenda, the current Finnish national curriculum has not been analysed through the lens of (inclusive) PE yet. In order to fill this gap, the purpose of this study is to analyse how the current national curriculum in Finland responds to student diversity in PE.

Methods:

The current Finnish national curriculum of PE was qualitatively content-analysed adopting a deductive approach. Based on the research design used by Ruin & Giese (2018), the analysis of the documents focuses on how the PE curriculum is responding to student diversity in general, and specifically, on three dimensions of diversity: disability, gender and interculturality.

Results and Discussion:

It is obvious that national curricula cannot simply be replicated from other countries, but the findings indicate that certain elements of the Finnish core curriculum – such as inclusive values and flexible assessment criteria – may serve as a guideline for other countries. Recognising and respecting diversity is an important aspect of the underlying values of the curriculum. However, the curriculum also highlights the responsibility of the school community for achieving this. In terms of PE, the Finnish national curriculum highlights the importance of promoting gender equality and considering the pupil's state of health and special needs in the instruction and assessment.

Review of Research on Physical Education Teachers in China since the 1978 Based on the Bibliometrics

Mr. Haohui Liu (East China Normal University), Mr. ZHIHUA YIN (East China Normal University), Ms. Xue Wan (East China Normal University)

Introduction: The purpose of this study was to summarize the characteristics of physical education (PE) teachers research and development from the perspective of the new era, and to explore the experiences, achievements and prospects for the direction of PE teachers in the future, provide a basis for building high-quality PE teachers group in China.

Method: Through the functions of co-occurrence, area map, emergency words and timeline diagram of research keywords of CiteSpace, the research hotspots, hotspot clustering and evolution trend of PE teachers research in China since 1978 which includes 12975 literatures in Chinese journals regards to PE teachers research are analyzed. Lastly, prospects are put forward for the future research on PE teachers.

Result : (1) The research on PE teachers in China can be divided into three stages: relatively deficient period (1978-2000), high-speed development period (2001-2010) and stable development period (2011-2020); (2) The research hot spots can be summarized as five knowledge groups: professional development of PE teachers, research on pre-service PE teachers, evaluation system of PE teachers, professional identity of PE teachers and PE teachers' teaching ability and skills; (3) The future research should be focused on four aspects: thoroughly understand the responsibilities and values of PE teachers, construction of the PE teacher's professional quality system, promotion of PE teachers to complete the transformation of roles, and expansion of PE teachers' development approaches.

Conclusions: The research on PE teachers has gradually matured in China since 1978. In the future, PE teachers research has broad room for expansion. It should be based on General Secretary Xi Jinping's important exposition on the construction of the new era of teachers, combined with the research experience of the past years, in order to give full play to the role of PE teachers in implementing the fundamental task of 'cultivating morality and cultivating people'.

Review, Reflection and Prospect of the Physical Education Teachers development since the founding of New China

Ms. Xue Wan (East China Normal University), Mr. ZHIHUA YIN (East China Normal University), Mr. Haohui Liu (College of Physical Education and Health, East China Normal University)

Introduction : Physical education (PE) teachers are not only the main force to promote the development of school physical education, but also the key force to promote our country to become a sports power(Zhang,2019). Based on this, the purpose of this study is to review the history of the development of PE teachers since the founding of New China, analyze its problems, and provide valuable reference for the development of PE teachers in China in the new era.

Method:This study mainly uses qualitative analysis to sort out the relevant policies, literature and academic works of PE teachers since the founding of New China. And consulted the expert's opinion, to China's PE teacher development course time node carries on the division.

Results:(1) The development of China's PE teachers has gone through five historical periods: the budding development period of 1949-1965, the stagnation period of 1966-1977, the transition period of 1978-2000, the rapid development period of the team in 2000-2010, and the perfect development period from 2010 to the present. (2) The number, quality, status, treatment of China's PE teachers have been continuously improved, and the continuous improvement of the management system. (3) Some problems: the education and training system of PE teachers lags behind the overall reform of national education, the training resources and conditions of PE teachers are not balanced, often ignore the actual needs of teachers, and the lack of substantive safeguards for the salary of PE teachers.

Conclusions:There are still some problems in the training, treatment, status and management mechanism of China's PE teachers. In the future, we should solve the outstanding problems and pay attention to the mental health of PE teachers. The guarantee measures to implement the policies of PE teachers, optimize the management of PE teachers.

Teaching children with autistic spectrum disorder to ride a bike during PE lessons in special education : case study.

Mr. Nicolas Franck (Haute École de la Province de Liège), Mr. Pierre Defroidmont (Haute École de la Province de Liège), Ms. Aline Taxhet (Haute École de la Province de Liège)

Introduction

Children with autistic spectrum disorder (ASD) present significant motor deficits, especially regarding complex motor tasks involving motion planning and sequencing and kinesthetic information integration (Rogers & Benetto, 2002). They also face difficulties to synchronize the movement of the arms and the legs (Hallett et al., 1993). Children with ASD suffer from developmental delay regarding motor learning. This delay is magnified when considering activities that require coordination and sense of balance, e.g. riding a bike (FQA, 2014). Since the correlation between motor ability and autonomy has been highlighted by the literature, this study aimed to examine if pupils with ASD were able to ride a two-wheeled bike if taught during adapted physical education (PE) lessons.

Methods

6 pupils (2 girls) of one special education school took part in a seven PE lessons unit (50 minutes each). They were between seven and eleven years old and were all diagnosed with ASD. The goal of the project was to teach those pupils to ride a two-wheeled bike and to pay attention to road signs. To this end, they participated in lessons based on the TEACCH approach which gives structured and individualized teaching to ASD children and helps them to develop autonomy. Practical pre (T0) and post-tests (T1) were performed before and after the intervention.

Results and conclusions

At the end of the seven lessons, every child was able to cycle on two wheels, except one. It requires nearly individual attention, plenty of time, and perseverance from the PE teacher. To conclude, children with ASD can learn to ride a two-wheeled bike, provided that the teaching method is adapted. This means, as PE teachers teaching ASD pupils, we need to take into account their motor difficulties and their particular learning styles.

The Aquatic Literacy For All Children project, or how to connect pedagogues and stakeholders to develop swimming instruction ?

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Introduction: Epidemiological studies show that the drowning phenomenon is a global health issue (World Health Organization, 2014). Even if national educational policies attempt to reduce this safety issue (Potdevin & al., 2019), studies show that they are unevenly distributed in Europe. On the other side, aquatic Physical Activities (PA) provides many opportunities for physical activity (PA) to overcome the sedentary lifestyles of our youth worldwide. In this way, Aquatic Literacy (AL) appears as an innovative concept, leading to a new way of thinking and teaching swimming throughout Europe to challenge drowning prevention and PA promotion.

Objectives: The aim of the ALFAC project (Aquatic Literacy For All Children) is to promote high quality aquatic education for 6-12 years old children with a dual challenge: protecting against drowning while engaging in an aquatic environment throughout life. To perform this, we propose a methodology to build a gender and age-specific AL assessment that gathers the different actors of the aquatic world through educational priorities.

Methodology: We gathered European actors in swimming education: educators (physical education teachers, swimming instructors), researchers and stakeholders (curriculum developers, swimming policies). The Delphi method (Green, 2014) was used to reach a consensus between actors on several test designs (motor, adaptive and cognitive).

Results: We hypothesize that this collaboration could provide a comparison grid of swimming programs and a European database to assess children's AL levels according to their age and gender, while going beyond cultural issues.

Conclusion: Thanks to this cooperation work between actors in swimming instruction, we aim to generate constructive debates to create common pedagogical tools, inspired by the practices of partner countries. Through a large diffusion, we hope that these tools will become a reference for children, educators and actors, to develop AL and to engage children in the aquatic environment safely throughout their lives.

The effect of STEAM education on physical education classes student's creativity improvement

Prof. Katsuro Kitamura (Nihon University), Dr. Dexia Yin (Tohoku University)

This study seeks to explain how the use of digital pens (Smartpens) that can record voice and writing traits by synchronizing them influences learning activities and strategies, taking as participants the learning experiences of university freshmen who have had to adopt learning styles different from those previously used, using the framework of STEAM education.

Participants were 19 first-year students (15 males, 4 females) at University. All participants tried Smartpens in a class taught by the first author and continued using them until they achieved a certain degree of skill. After that, they participated in group work in which notes had to be created for learning at the university physical education classes that would specify what type of note-taking is necessary for effective learning of motor skill tips. The object of this study's analysis is the following data obtained in this series of processes:

- Evaluation of notes taken in the physical education class (free description)
- Impressions of the experience of using a Smartpen (free description)
- Interviews conducted during group work

The contents of free description and interview data were classified according to utterances that included semantic contents with a high degree of affinity and categorized hierarchically per the Patton (2002) analysis method for qualitative data. Analysis demonstrated that the participants' learning experiences comprised the following six subcategories: understanding with an image, briefly scribbling, searching for important points, summarizing independently, sharing sense of movement, and necessity for communication. These were ultimately grouped into three categories: searching for important points, analysis, and communicating ideas.

The analysis demonstrated that these categories indicate a transformation process of learning strategies that manifests itself in the participants' positive evaluation of the utility of a new learning strategy utilizing a Smartpen.

The physical education pre-service teachers' development of badminton content knowledge following Play Practice in China

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Dr. DR. CHUNHE ZHANG (Hubei University)*

Background

There are two different types of content knowledge (CK), Common Content Knowledge (CCK) and Specialized Content Knowledge (SCK), in teacher education. In Physical Education & Teacher Education (PETE), CCK focuses on how to play (a sport) and SCK attends to how to teach. In China, the majority of PETE programs are heavily focused on CCK than SCK. The purpose of this study was to examine the effect of Play Practice and Traditional Teaching (TT) on Chinese PE pre-service teachers' skill, tactical understanding, game performance (GP), and SCK following a semester of badminton instruction.

Methods

72 pre-service teachers in PETE (13 females, 59 males, age: 20.7 ± 0.87) from a university in central China participated in the study. The badminton course consisted of 24 lessons (90 minutes per lesson) across 16 weeks. A control/comparison group, experimental design with pre-and-post-test was used. In the PP cohort, 30-35 minutes of game-based challenges (which featured three typical pedagogies, focusing, shaping, and enhancing) were scheduled in each lesson to reinforce the SCK of badminton.. The TT group focused on the fundamental skills and game play. Analyses of variance with repeated measures were conducted across groups.

Results

While both classes improved significantly in all areas (skill, tactical understanding, GP, and SCK), the PP group scored significantly higher on three variables: SCK ($F = 39.86, p < .001, \eta^2 = .633$), game performance ($F = 14.32, p < .001, \eta^2 = .172$), and tactical understanding ($F = 13.12, p = .001, \eta^2 = .158$). While both groups increased in SCK, over 75% of students in PP reached the benchmark score while less than 10% of students in TT achieved this standard. counterpart.

Conclusion

The pedagogies of Play Practice appear to be particularly efficacious in the development of SCK over more traditional instruction.

The recontextualisation of mandatory ‘wellbeing’ curriculum within Australian primary (grade) schools

Dr. DR. SUE WHATMAN (Griffith University), Dr. Roberta Thompson (Griffith University), Dr. Katherine Main (Griffith University)

This poster presentation depicts how wellbeing messages are recontextualised into primary or grade school curriculum from an analysis of policy and contemporary state-based curricular approaches to health education, focusing upon schools in one state (province) of Australia. A review of International, Australian federal and state-level student well-being policy documents was undertaken. Using two case study examples of state-sanctioned “child safety” and “bullying” wellbeing programs, the paper explores how discourses from various well-being policy imperatives are recontextualized, a process of de-location, translation and re-location through official and pedagogic fields, into local forms of curriculum. Both case examples clearly demonstrate how understandings of wellbeing respond to various power relations and resultant pressures emanating from agents and stakeholders within and across official pedagogic fields and other contexts such as local communities. We have adapted Bernstein’s (1990) model of the social reproduction of pedagogic discourse to demonstrate how “top-down” knowledge production from the international disciplines shaping curriculum development and pedagogic approaches can be countered by “bottom-up” community context-driven political pressure and perceived community crises. It offers contemporary insight into primary school responsiveness to ‘youth-at-risk’ discourses permeating child safety and bullying, and broader utility for school-based approaches to student well-being.

The third grade student's conception at cooperative netball skill learning situation: An analysis of children's drawings

Ms. NAHO MATSUMOTO (Akita University)

Purpose

In constructivist perspective, it has been pointed out that, during learning experiences, students construct their own new knowledge based on prior knowledge and principles (Piaget and Inhelder, 1969). The Constructivist perspective adds value regarding the importance of studying student conceptions. Studies on student conceptions (Hare and Graber, 2000) have suggested that such conceptions are separate from curriculum planning and thought, particularly through findings about students' misconceptions and naïve conceptions.

Method

Children's drawings can indicate much imagery information, original ideas. Analysis of children's drawings is done for the following reasons: (a) to understand students' perspectives on school learning, (b) to recognize the richness of visual data, (c) to establish suitable expressive forms adapted for children's development.

Twenty nine third-grade elementary school students (N=29; 15 boys, 14 girls) participated in a three-week netball skill learning unit consisting of 7 45-minutes lessons. In this unit students tried to perform drills that include catching individually, overhand passing in pairs, and passing the ball around in a circle. Data were collected through drawing and explanation writing (n=202) during free time in school after the lessons, in response to an open question. In addition, group and personal semi-structured interviews with and without drawings were conducted immediately after every classes. Drawing and interview data were coded thematically. Data reliability was ensured through triangulation of data and member checks.

Result and Conclusion

As results themes emerged as follows; a kind of activities, points of movement, special word, success, fellow, role in a team, advice. The results indicated that students critically recognized their skill trials, thought deeply about improving, felt a sense of fellowship in their group, and communicated with their group mates well. They also understood the importance of others' advice in order to help them improve.

Theoretical Exploration and Demonstration Research of Problem-oriented Physical Education Teaching Design

Ms. ZHIJUN XIAO (East China Normal University), Mr. JIAN ZHONG (East China Normal University)

Introduction :

The cultivation of students' problem-solving ability and innovative spirit has become an important direction of China's physical education curriculum reform. However, many teachers generally emphasize the teaching of individual techniques in teaching design and implementation, and ignore the cultivation of students' problem-solving ability. How to update innovative teaching design and promote the cultivation of students' innovative spirit and problem-solving ability has become an important issue that needs to be solved in the current physical education field.

Method :

This research uses questionnaire survey method, interview method and teaching experiment method to carry out problem-oriented theoretical exploration and empirical research of physical education teaching design. First of all, the theoretical exploration of the problem-oriented physical education design. Then through questionnaire surveys and teacher interviews to understand the cognitive understanding and application of problem-oriented teaching by frontline physical education teachers. Subsequently, a design case of the "Tennis Moving Forehand Strike" unit was formulated, and two teaching classes (a total of 62 students) were selected to conduct a comparative experimental study. The actual effect was verified by the comparison of the results before and after the experiment of the two classes.

Conclusions:

- (1) First-line physical education teachers support and begin to try to use problem-oriented instructional design for teaching.
- (2) Problem-oriented instructional design is feasible in physical education and health classes, and can cultivate students' ability to discover and solve problems.
- (3) Compared with traditional teaching design, problem-oriented physical education design has three advantages. First, shifting the focus of instructional design from the mastery of knowledge and skills to the development of students' abilities can cultivate students' core qualities. Second, it embodies the core concepts of problem-oriented, contextualized teaching, and structured teaching. Third, it is conducive to changing students' learning methods, enabling students to learn to learn independently, cooperatively, and inquiringly.

Understanding teachers' help-seeking behaviors in a virtual professional learning community

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Background and Purpose: Social media is one of the important online platforms that can facilitate teachers' professional development experiences (Goodyear, Parker & Casey, 2017). Social media allows teachers easily to share their work, seek help from other teachers, and provide and receive social support. However, few studies were conducted in understanding physical educators' behaviors in social media-based professional learning communities (PLC). Therefore, the purpose of this study was to understand physical educators' behaviors in a Facebook PLC. Specifically, this study focused on a proactive learning behavior—helping seeking.

Methods: An exploratory case study design was used to explore contemporary issues among physical educators and understand the complexity of physical educators' help-seeking behaviors on social media. The Facebook group of PE Central was selected as the case of this study. Two graduate research assistants independently read through the posts published from July 15th to December 15th, 2019 on the group page. A coding template was created for assistants to build an initial database by copying and pasting the complete content of the posts anonymously to the coding template, then entering the dates, time, gender, school levels, the number of replies, and the number of "likes" received. A total of 4,323 posts were analyzed.

Analysis and Results: The collected posts were analyzed using content analysis procedures and reported descriptively. All researchers were trained to code partial of the posts for calculating Interobserver Agreement (IOA). An 85% IOA was achieved before the researcher and research assistants independently coded the rest of data using the specified coding categories. The majority of the posts made in this virtual PLC aimed to seek help. Among all the help-seeking posts, four themes reflecting the types of help physical education teachers sought were generated: activity ideas, curriculum development, equipment and teaching materials, and job seeking.

Use of game statistics by non-professional basketball coaches and players

Ms. Catherine Theunissen (University of Liège), Ms. Barbara Tomasovic (University of Liège), Mr. Nicolas Franck (University of Liège), Prof. Alexandre Mouton (University of Liège)

Introduction

Game statistics play a substantial role in the modern basketball, since they are used to analyze individual basketball performances in every professional league. Those quantitative data show relevance at different levels and during different moments of the game (Broda, 2013) and represent a tool used in the decision process of basketball coaches (Marinho M. Dias Neto, 2007). However, non-professional coaches' ability to extract significant information from statistics is unclear. In this context, the aim of this study is to explore the perceived value and the use of statistics of Belgian non-professional basketball coaches and players .

Methods

Our study was composed of three distinct phases. First, six non-professional coaches (second and third Belgian divisions) were interviewed using a semi-structured questionnaire. Then, 35 players were interviewed using a questionnaire with open-ended and closed-ended questions. Finally, four official games were recorded. During those games, every coach was wearing a microphone in order to hear every intervention he made. Data collected were mostly qualitative and coaches' and players' perspectives were compared.

Results and conclusions

Results showed that coaches and players agreed on the importance of the statistics. They both considered that statistics have an impact on the individual and the collective performance. Also, they both mentioned that the relevance of statistics could be differentiated in 3 separate moments of the game: before (to prepare the very next game), during (between quarters and at halftime; to adapt the strategy) and after the game (to debrief and to address shortcomings highlighted by the data). To conclude, coaches considered statistics as a complementary tool to support short or long term game analysis, but pointed out also key game parameters that cannot be quantified.

Well-prepared PE Teachers' Sense of Coherence to Cope with Stressors by Utilizing Resources under the Pressure of Covid-19

Mr. JUYOUNG RYOU (Seoul National University), Mr. YONGJIN LEE (Seoul National University)

Background: PE teachers are facing new challenges brought up by Covid-19. The issue of losing the identity of PE in online classes(Varea & Calvo, 2020) put them in confusion. Contrary to some other teachers struggling to adapt to changing environments, a few teachers were good at acclimating to the new circumstance with same resources. What makes them different? Salutogenic perspective(Antonovsky, 1979; 1987) can provide an appropriate lens to figure out elements which make 'well-prepared-teachers.' According to this perspective, every teacher is exposed to a dangerous situation, which could be worse. So its strength-based-approach concentrates on teachers' Sense of Coherence(SOC) to handle the stressors by activating the given resources, rather than focusing on limitations.

Purpose:The aim of this paper is to explore what elements develop them as well-prepared-teachers who have strong SOC.

Questions: To specify the purpose, 3 research questions are presented. First, what are secondary PE teachers' stressors in online classes? Second, what are the resources they can utilize? Third, what influences well-prepared-teachers to develop strong SOC?

Method: Five secondary PE teachers who had experiences as invited presenters for sharing excellent online PE cases at Korean official PE organizations were purposely selected. The empirical data were collected through non-participatory observations, semi-structured interviews, and on-site data. The collected data were analyzed inductively.

Findings: Results suggest that (1)the main stressors participants confront in online class were emerged in the dimensions of educational environment, objective, content, method, and evaluation, (2)the resources were classified into aspects of individual, social network, professional community and socio-culture, (3)participants recognized that they were able to enhance strong SOC under the atmosphere related to Humanities-Oriented-Physical-Education(Choi, 2010).

Conclusion:PE teacher education and policies need to consider a holistic PE philosophy including indirect experience activities instead of relying solely on physical activities in order to foster PE teacher's strong SOC.

“Without any major text work“ – Teachers’ perspectives on the meaning and relevance of “theory“ in physical education

Ms. Lara Stamm (TU Dortmund University)

Background and purpose:

Physical education (PE) in Germany may also be considered as a practical, non-cognitive subject with a special status in which the rest of the school day is often compensated and which, unlike the other subjects of ‘sitting and thinking’, is often not perceived as a school place of learning. In this context, a qualitative study will be presented that investigates which orientations of PE teachers can be reconstructed with regard to this specific theory-practice-discourse in PE. The study aims to contour the relevance of theory for the subject culture, which can be defined as “distinguishable, systematically connected contexts of patterns of perception, thought, value and action” (Huber & Liebau, 1985, p. 315). On a theoretical level, the subject culture is embedded by the habitus concept and the sociology of knowledge.

Method:

Four PE teachers (teaching classes 5-13) from three different secondary schools were interviewed using a guided interview format and analyzed using the Documentary Method (cf. Bohnsack, 2017).

Results and conclusion:

The perceptions of what theory means to them and what the practiced theory eventually looks like differ greatly from one another. For three of the four PE teachers, orientation patterns could be reconstructed, in which the meaning of theory goes beyond the teaching of sport techniques and tactics. For them, sports practice is to be reflected or used in other (extracurricular) sportive contexts. However, it appears that the (partly unconscious) acceptance and relevance of theory in PE increases with a certain ‘subject identification’. Further research is needed to understand the background for these different patterns of orientation, e.g., with regard to the relevance of school cultural structures.

Literature:

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June 8: Oral Live A

A comparative analysis of discourses shaping physical education provision within and across the UK

Dr. DR. SHIRLEY GRAY (University of Edinburgh), Dr. DR. RACHEL SANDFORD (Loughborough University), Dr. Julie Stirrup (Loughborough University), Ms. STEPHANIE HARDLEY (University of Edinburgh), Dr. DR. DAVID ALDOUS (Cardiff Metropolitan University), Dr. DR. NICOLA CARSE (University of Edinburgh), Dr. DR. OLIVER HOOPER (Loughborough University), Dr. Anna Bryant (Cardiff Metropolitan University)

While we know something about how physical education (PE) is conceptualised within each of the four nations of the UK (England, Northern Ireland, Scotland and Wales), to date, no research has explored how PE is conceptualised across each national context. Consequently, the aim of this paper is to offer a comparison of the different discourses that are shaping PE provision across the UK. To do so, we carried out a discourse analysis of key statutory curriculum texts from each context and identified those discourses that are central to how PE is being conceptualized across the UK. In our analysis, we found several points of convergence and divergence across each context. All curricula highlighted the important role that PE plays in relation to learning about health, especially public health messages concerning leading healthy lifestyles. In addition, we found that performance discourses continue to dominate as a main goal of PE. We also found several points of divergence in relation to the role of teachers in the curriculum development process, and how much agency or guidance they are afforded within each context. The intention of this research is to open dialogue across each of the four nations, creating opportunities for understanding and growth. We also hope that the findings from this research leads to future analyses that explores these discourses from a more critical perspective and expose further the underlying ideologies that (re)produce those discourses that persist in PE.

A CONTEXT SPECIFIC PHYSICAL EDUCATION PROGRAMME FOR SENIOR PHASE PRIMARY SCHOOLS IN RESOURCE POOR COMMUNITIES IN THE WESTERN CAPE

Ms. Teneille Venter (Cape Peninsula University of Technology), Prof. Andre Travill (University of the Western Cape), Dr. Marie Youg (University of the Western Cape), Prof. Lloyd Leach (University of th), Dr. Simone Titus (University of the Western Cape)

Numerous benefits are associated with regular exercise. Physical education is one the avenues through which children are introduced to and given the opportunity to participate in physical activities. However, it has become increasingly difficult to provide quality physical education/activity in schools which are constrained by many institutional, teacher- and student-related barriers. The consequence is that many children are deprived of benefits associated with participating in physical activities. The purpose of this study is to assess perceptions and attitudes of various participants to physical education and develop a context specific physical education program for senior phase primary schools in resource poor communities.

The study will employ a mixed methods sequential explanatory design, conducted in four phases. Phase 1 will include a systematic review of literature to establish current best practices of physical education in resource poor communities. In Phase 2, the current practices of physical education in senior phase primary schools and to what extent it relates to official policies and expected practices will be assessed. Phase 3 will assess the attitudes and perceptions of participants towards physical education. In Phase 4 the information gained from the first three phases will be employed to develop a viable physical education program for resource poor senior phase primary schools. Quantitative data will be collected from a cluster sample of 300 (n=300) learners using the SAUPEA questionnaire. Qualitative data will be collected through semi-structured interview questions on 10 learners per grade (grade 7, 8 and 9), 10 teachers as well as members from the Department of Education. Based on the results collected, the researcher will develop a context specific physical education program for senior phase primary schools in resource poor communities. Findings from the study will help to inform future studies which are aimed at enhancing physical education.

A longitudinal mixed methods study of using a models-based approach to teach physical education in Norway

Dr. MATS HORDVIK (Norwegian School of Sport Sciences), Mr. Karl Petter Fon (Stokke Lower Secondary School), Dr. Bård Erlend Solstad (University of Agder)

In this presentation, we explore initial results from an ongoing three-year study of using a models-based approach to teach physical education in Norway. The particular setting for the study is one lower-secondary physical education class (25 students) that Karl (second author) teaches twice a week using a models-based approach. Employing self-study of teaching and teacher education practices methodology (Pinnegar & Hamilton, 2009), the mixed method data generation include Karl's reflective diary, audio of critical friend meetings with Mats (first author), and focus groups and questionnaire with the students. Initial results suggest that the professional autonomy that Karl was offered in his teaching context enabled him to continuously practice his models-based approach. This supported Karl in making constant judgments between: (i) the why(s), what(s), and how(s) of teaching and learning in physical education, and (ii) the different pedagogical models' main themes and ideas, critical elements, learning aspirations, and pedagogical processes. Such a teaching environment enabled Karl to develop a teaching praxis in which students experienced variation and progression in what (e.g., different themes) and how (e.g., small groups, autonomy-supportive structures) they learned. This provided the students with in-depth learning in a breadth of relevant themes that were aligned with the Norwegian physical education curriculum. We suggest that the initial results from this study show that when teachers work in a context that encourage them to continually practise their models-based approach while considering related why, how, and what questions, their teaching praxis has the potential to produce meaningful teaching and learning experiences in physical education. We encourage larger collective action projects that use this study as an aspiration to transform physical education and physical education teacher education.

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A systematic review of research on coaches in rugby union and rugby league

Ms. LARA PAUL (University of Cape Town), Dr. DR. SHARIEF HENDRICKS (University of Cape Town)

Background: Coaches play an instrumental role in the development of skills, knowledge, and cognitive processes of players. Coaches are key stakeholders in implementation of any new training programme or intervention in rugby, whether it be for performance or injury prevention. As such, we need to learn and understand more about rugby coaches.

Objective: To synthesise the current literature on rugby union and rugby league coaches.

Methods: A systematic search using key words was done on five different databases (EBSCOhost, PubMed, Scopus, SPORTDiscus, Web of Science). The combined key words were 'coach*' AND 'rugby union' OR 'rugby league' OR 'rugby sevens'.

Results: Ninety studies were included in the final review, with the majority of studies focusing on rugby union while only twelve explored rugby league and only one explored rugby sevens. The topics of studies included, coaching pedagogies (n=20), concussion knowledge (n=10), injury prevention (n=8), training practices (n=8), coach development (n=6), talent identification (n=6), monitoring players (n=5), culture (n=4), mini rugby union (n=4), player motivation (n=2), reflective practices (n=2), doping (n=2), leadership (n=2), first aid knowledge (n=2), tackle technique (n=2), referee abuse (n=1), sport science (n=1), return to play (n=1), stressors (n=1), nutrition (n=1), coping with pressure (n=1), and equipment usage (n=1). Most of the studies used interviews or questionnaires to investigate coaches.

Conclusions: This review showed that concussion knowledge of coaches has improved over the years. Education of coaches has simultaneously increased over the years to ensure that coaches have the knowledge to manage and act on serious injuries such as concussions appropriately. Another main finding from this review is that coaching is starting to shift from coach-centred learning to player-centred learning. Coaches are moving away from being the sole leader in the rugby team to encouraging players to have more responsibility, make decisions and solve problems on their own.

Analyse des pratiques des Personal Trainer en vue de l'identification des besoins de formation

Mrs. MADISSON BODART (University of Mons), Mrs. MARIELLE BRUYNINCKX (University of Mons), Mr. FLORENT JULIEN (University of Mons)

En Belgique, toute personne se déclarant « *Personal Trainer* » (PT) peut exercer sur base de ses connaissances et expériences sans qu'une certification spécifique ne soit exigée. Même si une volonté de reconnaissance de la profession est bien présente, aucune qualification obligatoire n'est requise et le titre n'est, actuellement, pas protégé (SIEP, 2016). Le PT joue pourtant un rôle important en guidant le sportif dans l'atteinte d'un objectif précis tout en tenant compte de son mode de vie, de ses habitudes alimentaires et de sa physiologie (McClaran, 2003 ; Rieger, 2018). Cette communication présente une analyse des pratiques des PT sur le terrain en vue d'identifier leurs besoins en termes de formation.

Une enquête par questionnaire et des entretiens ont été menés auprès de 146 PT afin de comprendre leurs motivations, de mieux cerner leur pratique professionnelle et de déterminer les difficultés qu'ils rencontrent. Nous avons analysé les données en tenant compte des éventuelles formations afin de tenir compte de leur parcours personnel.

Les résultats montrent qu'avec ou sans formation, les PT exercent cette profession parce qu'ils sont passionnés par le fitness et désirent transmettre leurs connaissances mais aussi parce qu'ils sont libres d'organiser leur temps de travail comme ils le souhaitent. Nous observons néanmoins que les sujets non formés aborderaient leurs séances avec moins de pédagogie et d'organisation que leurs homologues formés. La mesure du sentiment d'efficacité professionnelle nous permet également de conclure que les sujets formés semblent se sentir davantage « efficaces » dans leur fonction. Nous avons également pu relever diverses difficultés, notamment liées au manque d'équipement de certains lieux de travail.

Cette recherche nous a enfin permis d'identifier certains besoins de formation en termes d'accompagnement du sportif, de pédagogie, de prise en charge sportive sans matériel ou encore d'approches différenciées selon les profils des personnes coachées.

Classroom teachers' perceptions of movement integration in Korean elementary school: Facilitators, barriers, and support factors

Ms. SANGA YUN (Seoul National University), Dr. DR. EUICHANG CHOI (Seoul National University), Mr. JUNHYUK PARK (Seoul National University)

Movement integration(MI) is a teaching activity that involves infusing various physical activities into academic subjects during regular classroom time. MI was proposed for health promotion to increase physical activity in elementary school. Having been re-examined from the perspective of embodied learning, MI is discovering educative value beyond health promotion. In South Korea, MI has not yet been fully introduced theoretically or practically to elementary school education. The purpose of this study was to examine elementary classroom teachers'(ECTs) perceptions of MI by identifying facilitators, barriers, and support factors. Semi-structured in-depth interviews and online surveys were conducted for 12 and 53 ECTs who have implemented MI. The socio-ecological framework(McLeroy et al., 1988) was employed to analyze the data. Perceived facilitators, barriers, and support factors of MI were categorized into four socio-ecological levels: (a) Intrapersonal factors, (b) Interpersonal factors, (c) Institutional factors, and (d) Community & Policy factors. Facilitators to MI implementation included (a) teachers' perception that physical activity is valuable, (b) positive interactions with students and collaboration among teachers, (c) enough space and open school climate, and (d) the educative role of local government. Barriers were (a) time investment of preparation, (b) uncooperative students and peer teachers, (c) lack of space and administrative support, and (d) burden of reorganizing national curriculum. Requested support factors included (a) teachers' agency, (b) students' feedback and teacher learning community, (c) training and availability of resources, and (d) pre-service teacher education. This study informs practice and policy-making to provide Korean elementary students with opportunities for MI. The results highlighted that it is important to create a cooperative environment between four levels of influence: intrapersonal, interpersonal, institutional, and community & policy to support MI. Given that teachers are active agents, clarifying the educative potential of MI is necessary to help teachers internalize the need for this concept.

Digital technology and pedagogical changes in primary and secondary physical education (PE) teaching in Quebec and France during the first wave of the pandemic crisis

Prof. Thierry Karsenti (Université de Montréal), Prof. Cecilia Borges (Université de Montréal), Prof. JONATHAN R. CHEVRIER (Université Laval), Prof. Yoann Tomaszower (Academie de Creteil), Mr. Francis Ranger (Université de Montréal), Mr. Simon Parent (Université de Montréal)

As a result of the pandemic crisis, many PE teachers are dealing with remote education and using digital technology (DT) to teach. However, DT in PE can be considered controversial [1]. Teachers do not seem to master the technology in order to take advantage of it in their lessons and its benefits for the student's learning remain to be demonstrated [2], especially considering how it can be associated with a sedentary lifestyle and increased screen time among children and youth [3]. This research project addresses the uses of DT of primary and secondary PE teachers, in Quebec and in France, in the context of the pandemic. It is based on a survey answered by 433 teachers during the first wave of the pandemic (March-June 2020); 58% of whom are men and 42% women. Data shows that 93.8% of PE teachers use DT in their teaching and 81.5% of them lead their students to use it in classes. More accurately, one teacher in five leads his students to use DT on a regular basis, 16% often and 4% always. During the pandemic, PE teachers used several DT tools: Zoom, YouTube videos, Google Meet, Google Classroom, Pronote, email, phone. To communicate with students and parents, the teachers' prioritized DT tool was the email, followed by the school's website. The nature of communications during this period was notably related to emotional support (reassurance, encouragement, motivation, keeping in touch) and pedagogical guidance (support, instructions, teaching practices, homework), to make students active or informed about healthy lifestyles. Finally, 55% of respondents indicated an interest in using DT to teach PE. These results call for more research on the uses, nature and sustainability of DT in PE. They also raise questions about the nature of PE, in a context where pandemic measures may persist over time.

Effects of Active Video Games on Physical Fitness Variables: A Pilot Study

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Background and purpose: Active video games (AVGs) are intervention tool to increase physical activity among healthy population. Hence, this study aimed to investigate the effect of active video games (AVGs) on some physical fitness variables such as aerobic endurance, strength, and flexibility.

Methods: Eleven healthy, recreationally physically active male volunteers, participated in the study. The study was approved by The Local Ethics committee. The participants played an active video fighting game - "Fighters Uncaged" - with Xbox Kinect console, in which the opponents were randomly selected, for 20 minutes, three days a week, for 4 weeks. Previous practices in our laboratory showed that the active video fighting game causes energy consumption corresponding to high intensity exercise ($MET > 7$). Pre-test and post-test physical fitness level was evaluated for body weight, counter movement jump (CMJ), hand grip strength (right and left), flexibility, static and dynamic balance, and maximum oxygen consumption (VO_2max) determined using the Bruce protocol. Data were analyzed with dependent t-test and significance was accepted as $p < 0.05$.

Results: The findings of the current study demonstrated that the 4-week active video fighting game practice significantly increased the flexibility (Pre: 30.95 ± 8.77 ; Post: 36.45 ± 6.69 cm; $p = 0.003$), right hand grip strength (Pre: 43.55 ± 6.79 ; Post: 46.08 ± 7.37 kg; $p = 0.007$) and the VO_2max (Pre: 56.51 ± 4.41 ; Post: 58.52 ± 3.66 ml/kg/min; $p = 0.034$). There was no significant difference for the other variables (weight, CMJ, left hand grip strength, and balance) ($p > 0.05$).

Conclusions and implications: This study's findings support the thought that active video fighting game can be an effective tool in combating inactivity. When the right active video game is chosen, and it is practicing regularly it can increase the aerobic endurance and strength in healthy male subjects.

Experiences of transgender and intersex students in Physical Education

Prof. ROSA DIKETMUELLER (University of Vienna)

Sport participation has been acknowledged as a significant socializing agent for young people. Nevertheless, as for young people the dialogue across individual identities and the ways of being, particularly for LGBTIQ*, may encounter sexual stigma within sport culture. Despite the potential implications of sexual stigma in their everyday lives, there is a lack of knowledge regarding the experiences of LGBTIQ in PE (Osborne&Wagner 2007; Petty&Trussel 2018). So the purpose of this paper was to examine attitudes and experiences of students identified as trans- or intersex persons in PE and sport.

Aligned with a constructivist grounded theory approach, biographical stories as a form of knowledge were conducted to examine the perspectives of six trans-/intersex men. In the content analysis categories were developed and emphasis was placed on the experiences the interviewees made in PE.

Despite the evidence that homophobia seems to be declining in different countries and social fields, sexual stigma is omnipresent in the stories. Based on the experiences, the interviewees focused on changes that could be made at various levels to make PE more inclusive to all individuals regardless their gender.

Particularly their suggestions for PE which is taught in Austria in a gender-segregated way from the age of 10 years onwards, led to discussions on how to organize PE in a more inclusive and non-discriminatory way (including locker rooms, toilets, ...) and how to enable self-determination in school settings for all students.

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Facteurs favorisant la pratique d'activités physiques à l'école secondaire : comparaison des besoins entre les adolescentes et les adolescents

Ms. KAROLANE GIRARD (Université de Sherbrooke), Dr. Marie-Maude Dubuc (Université de Sherbrooke), Dr. Alexandra Thibert (Université de Sherbrooke), Prof. SYLVIE BEAUDOIN (Université de Sherbrooke), Prof. FÉLIX BERRIGAN (Université de Sherbrooke), Prof. SYLVAIN TURCOTTE (Université de Sherbrooke)

Dès le début de leur adolescence, un nombre important de jeunes diminuent considérablement leur pratique d'activités physiques (AP). Les écoles sont reconnues comme un lieu privilégié pour proposer une variété d'interventions ciblant l'augmentation de la pratique d'AP chez les jeunes. Toutefois, les études montrent l'existence d'un fossé important entre l'offre d'AP proposée dans les écoles et les intérêts des adolescentes et des adolescents. De plus, il semble exister des différences notables selon le sexe de l'élève. L'objectif de cette étude est de comparer les besoins et les obstacles perçus par les adolescentes et les adolescents, quant aux interventions visant le maintien ou l'amélioration de leur pratique d'AP. Un questionnaire en ligne a été complété par 139 élèves (77 adolescentes et 62 adolescents) provenant de quatre écoles secondaires. Parmi ces 139 élèves, 100 ont participé à l'un des 16 groupes de discussion (8 groupes par sexe) afin de valider, nuancer et approfondir leurs réponses. Une analyse de contenu a été effectuée afin de classer les données selon le modèle socioécologique. Les résultats de cette étude indiquent que les adolescentes ont des besoins spécifiques quant à la nature des interventions qui doivent être diverses et stimulantes, alors que les besoins des adolescents portent davantage sur une augmentation d'occasions pour s'adonner à des AP. Les adolescentes expriment également des besoins quant aux caractéristiques de l'intervenant, alors que ce n'est pas le cas pour les adolescents. L'intervenant doit, notamment, assurer une bonne communication, encourager individuellement les élèves et les motiver à participer à des AP. Les résultats obtenus permettent de mieux cerner les besoins des adolescentes et des adolescents en matière de pratique d'AP et, ainsi, formuler des pistes d'action visant à améliorer l'efficacité des interventions mises en place dans les écoles secondaires dans le but de favoriser la pratique d'AP des élèves.

Has COVID-19 pandemic affected physical activity interventions' efficacy? Evidence from Made2Move programme

Dr. Fiona Chambers (University College Cork), Dr. Manolis Adamakis (University College Cork), Ms. Gillian O'Sullivan (Department of Sport and Physical Activity, University College Cork, Cork), Prof. Deirdre Brennan (School of Sport, Ulster University)

Introduction

Physical activity (PA) and has the potential prevent chronic diseases that are risk factors for COVID-19 outcomes. However, political measures to curb the COVID-19 pandemic include different means of physical isolation that raise concerns about dropping PA levels and might have a profound effect on PA interventions that target physical inactivity.

Thus, the purpose of this study was to evaluate and compare the efficacy of the 8-week Made2Move PA programme on participants' step count, before and during the COVID-19 confinement measures.

Methods

Made2Move programme linked physically active students (MoveMentors) with physically inactive students (MoveMentees), aiming at increasing MoveMentees' step count. The sample consisted of 107 MoveMentees (20.46±2.99 years). Sixty-six MoveMentees participated in the programme before the confinement measures (Cohort 1: October-November 2019) and 41 MoveMentees during these measures (Cohort 2: February-March 2020). Step count was objectively measured with the use of a pedometer app and statistical analysis included descriptive and inferential statistics.

Results

Statistically significant differences in total steps between week one and the following seven weeks were observed for both cohorts ($F=11.93$, $p<.001$). The differences between the two cohorts were more obvious in weeks seven ($F=22.28$, $p<.001$) and eight ($F=14.17$, $p<.001$). During the two final weeks, Cohort 2 accumulated 3516 (95% CI: 2529 to 4503) and 3348 (95% CI: 2395 to 4300) less steps, respectively, than Cohort 1.

Conclusion

The present study provides quantitative evidence that highlights the negative effect that COVID-19 pandemic physical isolation measures had on Made2Move PA programme. The findings reveal that at the beginning of the pandemic, Cohort 2 MoveMentees' daily step count decreased by approximately 40% compared to the number of steps Cohort 1 MoveMentees accumulated before the pandemic. The long-term effects of the world's physical isolation reaction to the pandemic might lead to collateral damage to many PA programmes.

Impact de la périodisation de l'entraînement mental sur l'évolution de la force mentale chez les volleyeurs tunisiens selon quatre moments

Prof. ISSAM EDDINE BEN CHELBI (Université de la Manouba), Prof. JAOUAD ALEM (Université Laurentienne), Dr. DR. DRISS BOUDHIBA (Université de la Manouba), Prof. SABEUR HAMROUNI (Univrsité de la Manouba), Prof. Sabri Gaied Chortane (Université de la Manouba)

L'objectif de l'étude était d'examiner l'impact de la périodisation de l'entraînement mental (PEM) sur la force mentale (FM) chez les volleyeurs. L'intervention a été inspirée de la théorie de la force mentale de Sheard (2012) « L'esprit derrière la réussite sportive » et des programmes de l'entraînement mental de Selk (2008). Un échantillon de 59 volleyeurs (28 expérimentaux et 31 contrôles) âgés entre 14 et 26 ans (M 20.42 ET 3.59) a répondu au questionnaire du MTQ48 en 6 facteurs (BenChelbi.I et al 2021, en cours). Les moyennes générales de la FM ont été mesurées à quatre moments au cours d'une saison de six mois, un avant, deux au milieu et une après la phase compétitive. L'analyse des résultats est effectuée par les mesures répétées ANOVA 2 (groupe) × 4 (temps). Les statistiques de fiabilité ont montré une cohérence interne satisfaisante au cours des quatre temps durant six mois ($\alpha_0 = .743$; $\alpha_1 = .745$; $\alpha_3 = .755$; $\alpha_5 = .695$). L'hypothèse de sphéricité a été vérifiée ($p = 0,002$), l'ANOVA répétée a montré que le score de FM était significatif selon les quatre temps durant la PEM ($p = .004$). Les tests post hoc de Tukey,(1939) ont permis de déterminer que, contrairement au groupe expérimental, le groupe contrôle a significativement diminuer sa FM entre le temps 1 et le temps 2 ($p = .02$), puis entre le temps 1 et le temps 3 ($p = .02$). On conclut que la PEM est une approche puissante pour la stabilisation de la FM durant la saison à partir de deux mois de la compétition. Des recherches supplémentaires sont nécessaires pour examiner l'impact de la PEM sur d'autres constructions psychologiques telles que la gestion d'anxiété, la motivation.

Implementation and effectiveness of cognitive-activating PE: a scoping review

Mrs. SOPHIE ENGELHARDT (University of Tuebingen), Prof. JULIA HAPKE (University of Tuebingen), Dr. CLEMENS TÖPFER (Friedrich-Schiller-Universität Jena)

Background: Developing pupils' physical literacy in PE requires the acquisition of cognitive-reflective dispositions. Appropriate teaching measures encompass approaches such as "cognitive activation" or "cognitive engagement" (e.g. Herrmann & Gerlach, 2020; Wang et al., 2019). This study compiles empirical findings that characterize the implementation and effectiveness of cognitive-activating PE.

Methods: In order to cover the current state of research in German and English publications, we conducted a scoping review (Tricco et al., 2018). We applied relevant search terms (e.g. reflection, cognitive engagement) in various data bases (e.g. Web of Science, ERIC).

Results: The search yielded 4292 hits. Following the screening of titles, abstracts, and full texts, 62 studies were included. With regard to implementation, studies show that teachers mostly agree with cognitive-reflective PE but perceive barriers to its realization. In terms of effectiveness, studies highlight that critical thinking and problem solving (depending on the cognitive demands of the tasks) can foster knowledge acquisition and the development of game skills and understanding.

Discussion: While studies from Germany focus on the evaluation of implementation, international studies mainly focus on effectiveness. As studies pursue various teaching goals in PE, the empirical characteristics for cognitive-activating PE must be differentiated accordingly.

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Investigating faculty and students' experience of online university teaching amidst the Covid-19 lockdown period

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The social distancing, quarantine and lockdown measures of the Covid-19 pandemic have brought the educational system worldwide to an imminent collapse. Within the field of higher education, the adoption of online instruction has been considered with skepticism due to the polarization that it raises between physical and virtual forms of interaction.

Based on the above, the aim of the present study was to gain a first-person understanding of academic teachers' and students' experiences of online instruction during the Covid-19 lockdown period. The study was conducted in two Phases. Phase I began during the spring of 2020 and included a focus group interview with faculty (n=5) and students (n=7), from the field of Physical Education Teacher Education. Phase II included the development of a short online survey, which was based on focus-group interview results and recorded higher education teachers' and students' experiences of shifting to online instruction within physical education and sport courses. The survey was uploaded in social media networks, during the second half of 2020 and it was completed by twenty-one faculty and twenty students from various geographical regions. Data were analyzed inductively with the use of qualitative research methods.

Results showed that irrespective of personal differences, both university teachers and students experienced online instruction as a constant negotiation between new teaching and learning norms and established cultural conventions. For all participants, the challenges and possibilities offered by online environments, although not coincident with their previous academic experiences, portrayed their educational change as a process that was evolving and unfinished.

Acknowledging that online spaces can help us open up our "being-in-the-digital-world" understandings, we advocate for future studies focusing on digital experience as the construction of new subjectivities and not simply as the representation of events.

Likes, friends, followers and favourites as a barometer of educational value?: How PE teachers use social media to support health-related PE

Mr. Zac Parris (Loughborough University), Dr. DR. ASHLEY CASEY (Loughborough University), Prof. Lorraine Cale (Loughborough University), Prof. Jo Harris (Loughborough University)

Leading healthy, active lifestyles is an established goal for curriculum PE. However, there are recognised challenges and issues in successfully delivering this goal, including teachers' and pupils' limited understanding of health. To address some of these challenges, the ubiquitous, situated, and embedded nature of contemporary technologies such as social media represent an appealing pedagogic tool. While there is a body of evidence focusing on how young people use social media for health, there is limited literature on teachers' use of these platforms. Underpinned by appreciative inquiry, and utilising a grounded theory methodology, this study sought to explore secondary school PE teachers' use of social media to support health-related PE, including what sources of health information they value and why.

Twenty-six secondary school PE specialists were recruited for the study using purposeful sampling. These teachers took part in a semi-structured interview, a social media screenshot task, and a photo-elicitation interview between June 2020 and January 2021. The screenshot task and the photo-elicitation interview, in particular, allowed the research to account for the personalised nature of social media through a series of authentic examples. This helped identify key sources of health information and the reasons why PE teachers valued these.

The findings revealed that whilst many teachers put stock in well-established health information such as resources and guidance produced by national associations for PE, they also paid heed to more questionable sources on social media. Despite recognising that both 'good' and 'bad' information could be accessed via these platforms, many teachers did not seem very discerning about their use of social media to support health-related PE. Indeed, some specialists were so busy that they reported using likes, friends, followers and favourites as a barometer of educational value, potentially exposing themselves (and their pupils) to 'unhealthy' fads, fitness gurus, edu-celebs and self-styled entrepreneurs.

MERLEAU-PONTY, OBJECT INCORPORATION AND UNSTRUCTURED PHYSICAL PLAY: A PHENOMENOLOGICAL ANALYSIS.

Mrs. Patricia McCaffrey (Institute of Technology, Sligo)

INTRODUCTION

*Easy Peasy,
Oh this is cool,
All these steps,
Lucky, Lucky,
Look teacher.*

The words above, brief speech utterances, reflect the joy and delight from a child (aged 5) as she entered the sport hall and saw the blocmodules. This paper presents data from a PhD study that sought to describe and understand children's lived body experiences of unstructured physical play with objects in the context of physical education in early childhood.

METHOD

The study involved 15 children (aged 4-6) and their teacher from one primary school in Ireland over one school year. Ethical clearance was obtained from a university ethics committee followed by informed consent from the children's parents, the teacher and assent from the children themselves. Over eight consecutive weeks the children engaged in 60-minute unstructured physical play sessions with objects (blocmodules) crafted to encourage motor education movements through play. Data was generated via participant observation and documented through visual methods and narrative description. To centralise the lived body and corporeal movement as children interacted with others and material objects, I turned to phenomenology and Merleau-Ponty (1962), who has the potential to make an important theoretical contribution to physical education research (Stolz, 2013; Thorburn & Stolz, 2017; Thorburn, 2020; Thorburn & Stolz, 2020).

FINDINGS

The objects become "voluminous powers" (Merleau-Ponty, 2012, p. 144) generating meaningful experiences in physical education (Beni, Fletcher & Ní Chróinín, 2017). They scaffold motor development education (physical competence), delight, fun, personally relevant learning and social interaction when incorporated through physical play. They produce subjective meaning through embodied experience.

CONCLUSION

The later writing of philosopher Merleau-Ponty could help inform an increased understanding of the centrality of lived-body experiences and embodied subjectivity. This contributes to educational aims and everyday schooling practices in relation to physical play and physical education in early childhood.

PARENT'S PERCEPTIONS ABOUT POSSIBLE CHANGES CAUSED BY COVID-19 TO CHILDREN'S PHYSICAL ACTIVITY BEHAVIOUR AND DIGITAL MEDIA USE

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The time spent using screen media has been recognized as a major factor in the decrease of children's daily physical activity. The International Ipschooler Surveillance Study Among Asians and OtheRs (IISSAAR) study was launched to measure preschool children's parent's perceptions on how much their children spent time on different activities. As a part of this international study, randomized and nationally representative surveys were launched in Finland in 2019 and 2020. Recruited through Early Childhood Education centres, parents answered culturally translated SMALLQ® questionnaire in November 2019 (n=2529; mean age 36.2; children's mean age 4.7) and November 2020 (n=5472; mean age 36.1; children's mean age 4.6).

Children played indoors 2 hours a day both before and during Covid, but the time spent in physical outdoor play increased during Covid period (1.54 [SD 1.14]) compared to the previous year (1.39 [SD 1.18]; $p < 0.001$). Additionally, children's screen time increased (from 1.73 [SD 1.23] to 1.85 [SD 1.22]; $p < 0.001$). In 2020, when asked whether the restrictions had affected on child's behavior, majority of the parents reported no effect on playing indoors or outdoors (60%), or digital media use (55%). On the other hand, 36% of the parents reported increased indoor play and 43% digital media use. Overall, 18% of parents were more concerned about their child's wellbeing than before.

The preliminary results of this study revealed that even though most of the parents estimated that the time their children spent on different activities did not change because of Covid, remarkable amount of parents reported increased concerns about their child's wellbeing. Changes in children's behavior during Covid, such as increased screen time, may have negative health consequences in future years. This underlines early educators' and PE teachers' role in increasing understanding of the importance of outdoor activities and limiting digital media use in supporting children's wellbeing.

Physical activity levels during Singapore primary school physical education

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Background: Physical activity participation is important as it provides many health benefits for young people. The World Health Organization (WHO, 2013) recommends that 5-17 years olds young people engage in at least 60 minutes of moderate-to-vigorous physical activity (MVPA) every day. They spend almost half of their waking hours at school on weekdays. Although physical education (PE) lessons are not conducted daily in Singapore schools, PE should play a major role to promote physical activity in school settings. However, previous studies reported that percentages of lesson time in MVPA were less than 50%. Furthermore, physical activity levels during PE lessons at Singapore primary school were not reported in published studies. Therefore, the present study aimed to investigate physical activity intensity levels during PE lessons at a Singapore primary school.

Method: A total of 99 students from a Singapore primary school voluntary participated in the study. Of the 99 primary school students, 30 were in Grade 1 (ages 6-7), 40 were in Grade 4 (ages 9-10), and 29 were in Grade 6 (ages 11-12). After obtaining consent forms, participants were asked to wear an accelerometer in two PE lessons to objectively measure physical activity levels during the lessons. They also completed questionnaires on their perceptions of PE and experiences during the lessons.

Results and Conclusions: It was found that a) $67.8 \pm 14\%$ of PE lesson time was spent in MVPA, b) boys were significantly more active than the girls across the 3 age groups, and c) Grade 1 students were more active than Grade 4 and Grade 6 students. The findings of this study would be beneficial for PE teachers to reflect whether their PE lessons are efficient to promote primary school student's physical activity levels and support them in reaching the WHO's recommendation though PE lessons.

Portuguese adolescents' physical activity levels in the first lockdown period due to the COVID-19 pandemic and teachers and coaches first strategies: A cross-sectional study.

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Due to the COVID-19 pandemics, a social confinement was declared in Portugal on 19 March 2020. Schools and sport clubs were closed, the access to all sports and leisure facilities was limited, and young people have experienced restrictions regarding the practice of physical activities (PA) and sports. The purpose of this study was to identify sport and PA levels of adolescents before and during confinement, and to know the strategies adopted by PE teachers and sports coaches when communicating with their students and athletes in order to keep them physically active. An online survey was conducted between March 27 and April 14. A total of 3012 Portuguese adolescents (57% females) aged between 10 and 19 years (14.3 ± 2.4 years) participated in this study. Wilcoxon test and paired-samples t-test were used to compare two related samples, and the chi square test of independence was conducted to examine the relation between categorical variables. We can conclude that the number of students practicing PA increased during the first lockdown ($n=2191$; 72.7% to $n=2686$; 88.2%). For those who practice PA before, the frequency of PA decreased from 4.7 a week (before lockdown) to 4.4 a week (during lockdown). For those who did not practice PA before isolation, they start doing it 4.1 times a week. The vast majority of PE teachers (77.3%) proposed some pedagogical activities, with video conference classes being the most frequent (41.7%). Regarding the coaches, 53.4% proposed some activity, most of the time circuit training, walking and cycling (around 18% each), or specific training exercises and video conference classes (about 12% each). The number of students who increased their regular PA practice could be justified by the rapid intervention of PE teachers, through the implementation of several online strategies, or by the fact that students were able to choose different practice options.

Preliminary result from EUPEO research programs: Comparing the quality of physical education between France, Germany and Switzerland

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We wish to present the preliminary results of the EUPEO program, which proposes three specific tools: the European Country Questionnaire (ECQ), the European School Questionnaire (ESQ), and the European Student Questionnaire (ESQ). We wish to present and compare the results concerning the opportunities offered to students, the pedagogical principles and the general satisfaction of students in physical education in these three countries. A total of 532 students (234 from France, 189 from Germany and 109 from Switzerland) and 13 teachers (7, 4, 2) were questioned.

The results show that all countries offer similar opportunities for compulsory PE (120 min.wk-1), but also for non-PE periods, with about 30 per cent of students reporting having at least occasional active classes and breaks. However, active transportation is more encouraged in the French sample (57.1%), while Switzerland and Germany show a higher degree of structured leisure (43 and 59.1%, respectively, compared to 28.6 % for France). With regard to pedagogical principles, all countries offer a diagnostic, formative and summative evaluation designed by the school, although this is not systematized in the French sample. The majority of the students felt that the PE they followed promoted the following 9 principles: 1. developmentally appropriate, 2. learning-centered, 3. inclusive, 4. socially just, 5. health-centered, 6. holistic, 7. student-centered, 8. safe and 9. Reflective (range: 2.44-4.62/5). The only notable difference is safety during PE, with Germany scoring higher than France and Switzerland (4.6 versus 3.9 and 4.0/5). However, the safety score is the highest among the sub-indicators for the different countries. Finally, all three countries recorded good overall student satisfaction with physical education and school sports (range: 3.65-3.87/5).

In conclusion, the EUPEO questionnaire seems to be an interesting tool to monitor the quality of PE both within a national context, but also across countries within the European context.

Teachers' Perceptions and Understanding of Children's Fluid Intake

Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University), Dr. DR. TARA COPPINGER (Munster Technological University)

No public health data exists on elementary teachers' perceptions of both their own fluid intake and of their elementary school aged children's fluid intake. A total of 271 (20 males, 251 females) teachers in developed areas of Australia, Belgium, England, Ireland, United Arab Emirates, and the United States of America completed an online questionnaire (Feb–Mar 2019) on: (i) their fluid intake, (ii) their perception and understanding of children's fluid intake and (iii) barriers in the school day that they felt prevented school children consuming fluids.

Overall, the data indicated that teachers consume considerably lower amounts than recommended themselves, but have a good awareness of children's fluid intake and estimate children drink approximately half (1 litre (34% n = 93)) of what is recommended per day. The results were also similar to those reported by children previously. Yet, the data highlighted a lack of active encouragement of drinking water throughout the school day by teachers, with only 11% (n = 29) suggesting they actively encourage children to drink and 45% (n = 123) reporting no active encouragement at all.

It is recommended as a public health measure that all school children consume an extra cup of water during lunch times in those schools where water intake was recognized as sub optimal. Furthermore, depending on weather conditions, a cup of water before, during and after Physical Education lessons should be encouraged by teachers. Water coolers or bottles may be used as a supplementary resource, provided that hygiene is maintained.

From an educational perspective, more professional development needs to be provided to teachers on the importance of regular water consumption, and more time dedicated across the elementary curriculum to educational understanding of fluid consumption.

The factors associated with motor competence in primary school students: A cross-sectional study within the context of the Sintra Grows Healthy program

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Introduction: Motor competence (MC) is positively associated with physical activity (PA) and health. However, in childhood, MC levels tend to be low and many children fail to meet the PA recommendations to benefit their health. Based on the socioecological model, it is important to identify the multilevel factors associated with children's MC. Most studies have focused on analysing the individual demographic variables and behavioral variables and, therefore, further research is needed to better understand other types of behavioral, family, and social factors. Therefore, this study aimed to explore individual, behavioral, and social correlates of MC in primary school children. **Methods:** This study took place within the scope of Sintra Grows Healthy. We sampled 267 children from the 2nd and 4th grades (120 female; mean age = 102±14 months) of 6 primary schools. Baseline sociodemographic, psychological, social and PA were collected via parents' questionnaire. Baseline MC was assessed through MOBAC battery tests. Baseline data were analysed with univariate and multivariate regression analysis by using the RStudio software. **Results:** Sex, age, body mass index (BMI) and regular participation in PA and sports clubs (outside school) were significantly and positively related to total MC in all models ($p < .05$). A higher total MC score was observed for boys and for those who were regularly involved in physical education and sports clubs. Students from the 2nd year, as well those with a higher BMI, presented lower total MC scores. All other tested variables were not significantly related to children's total MC. **Conclusion:** We found evidence for the role of the individual and behavioral factors in MC, however, we found none for social ones. This study is innovative because we analysed various variables regarding children's MC. Further higher-powered studies and longitudinal studies are needed to understand the role of multilevel variables in total MC during childhood.

Understanding the Process of Implementing Physical Education Syllabus in Singapore Schools

Dr. Koon Teck KOH (National Institute of Education, Nanyang Technological University), Dr. Steven Tan (National Institute of Education, Singapore), Dr. Shern Meng Tan (National Institute of Education, Singapore), Dr. Wee Boon Ang (Nat)

Background and purpose: The successful implementation of physical education (PE) syllabus in schools is a complex process. The purpose of this study was to investigate how PE teachers interpreted and implemented the 2014 PE syllabus in achieving learning outcomes. Challenges faced by the PE teachers in the study to effectively implement the syllabus and areas for improvement were highlighted.

Methods: Twenty trained primary schools PE teachers ($M_{age} = 39.15$, $SD = 7.32$; Male = 13) and 20 secondary schools trained PE teachers ($M_{age} = 40.15$ years, $SD = 7.40$; Male = 17) with different years of teaching experience from different school demographics participated in semi-structured interviews. The interviews data were analysed using thematic analysis (Braun & Clarke, 2012).

Results: Factors that influenced syllabus implementation included: translation of syllabus to scheme of work, resources available, pedagogy selection, assessment modes, and appropriateness of the syllabus content. Implementation challenges included: interpreting/translating learning objectives to specific lessons, inadequate time, administering assessment consistently, and managing students with special needs. Enhancing the syllabus content and improving teaching competencies and understanding of syllabus are recommended to enhance the effectiveness of syllabus implementation.

Conclusions and implications: The process of syllabus implementation is multi-dimensional. Various aspects such as translation of syllabus content to scheme of work, teaching resources and pedagogical decisions made by the teachers must be considered. Findings of this study would be valuable for policymakers, particularly in the enhancement of existing PE syllabus. PE teachers will also benefit from the findings to guide and facilitate meaningful learning for their students in achieving desired outcomes of PE.

What makes John move? An analysis of outdoor play physical environmental factors changing a child's activity from sedentary to physically active

Dr. Susanna Iivonen (University of Eastern Finland), Ms. Donna Niemistö (University of Jyväskylä), Dr. DR. ARJA SÄÄKSLAHTI (University of Jyväskylä), Dr. Titta Kettukangas (University of Eastern Finland)

Children's low physical activity (PA) levels call for an investigation of what can promote PA for excessively sedentary children. Although play opportunities in outdoor environment have been found to be a promising way to decrease sedentary behaviour and increase PA, previous nascent evidence suggests that child's individual characteristics may interact with the effect of the outdoor environment, further indicating that different children need different environmental opportunities to PA. The purpose of this one-year longitudinal mixed-method case study in an early childhood education environment was to observe one sedentary child's free outdoor playtime in four seasons and find out what physical environmental factors changed his activity from sedentary to physically active. The most sedentary individual of the group, "John", was identified through quantitative systematic observation (46 hours, 22 minutes and 17 seconds of data observed). The results showed that during the four seasons John spent an average of 25% of the playtime doing sedentary activity and 75% of the playtime doing physically active activity during 60-minute free outdoor play sessions. Qualitative analysis showed that there were a total of 71 physical environmental factors related to John's change in outdoor activity in the various seasons: man-made objects, such as play equipment, observed 28 times (39%); natural materials, such as water, sand and snow, observed 25 times (35%); and free spaces in the yard observed 18 times (26%). The number of factors was highest in the summer and lowest in the spring. Study revealed that physical environmental factors in outdoor environment offered active opportunities for John who was identified the least physically active in the group. In addition, seasonal changes and climatic conditions may change the outdoor environment physically activating. Physical education teachers should systematically use physical environment as stimulating learning environment and possibility to increase the least active children's PA.

What Physical Education Teachers Need to Know About Assessment

Dr. DR. PETTER LEIRHAUG (Norwegian School of Sport Sciences), Mr. KRISTIAN ABELSEN (Norwegian School of Sport Sciences)

López-Pastor et al. (2013) stated that back in the days when the majority of school children experienced a drilling and exercising form of physical education, assessment, in so far as it existed, was straightforward. In recent decades, by contrast, assessment in education has emerged as a means to both monitor and improve student learning, and most Western countries have experienced a highly increased focus on assessment. However, as assessment has become more visible, it also has become more problematic, and despite remarkable growth in theory and research regarding assessment in physical education, what it means to be 'assessment literate' in physical education remains poorly conceptualised. Considering that physical education teachers need not know everything about all sorts of assessment, this paper describes nine must-understand topics of assessment literacy in physical education that are essential to be able to meet standards of high-quality classroom assessment. Examples of topics are 'Validity in student assessment depends on alignment with curricular goals and teaching practice', 'Grading and assessment are not synonyms', and 'The need to involve students in assessment processes' The nine topics were identified during a systematic review of research on assessment in physical education (peer-reviewed studies published in English from 2006 to 2018). As the result and conclusion of the study, as well as an effort to improve assessment literacy among physical education teachers, the list should be criticised and improved, preferably among physical education teachers. As an invitation surrounding this idea, we close by pointing to some potential directions for both physical education teacher education and future research on 'assessment literacy in physical education'.

López-Pastor et al. (2013). Alternative assessment in physical education: A review of international literature. *Sport, Education and Society*, 18, 57–76.

June 8: Oral Live B

‘I am isolated, but I am not alone’: physical education teachers’ experiences of nurturing a learning community online

Dr. Heidi Jancer Ferreira (Federal Institute of Education, Science and Technology of South of Minas Gerais - IFSULDEMINAS),

Dr. DR. LUIZA GONÇALVES (Federal University of Mato Grosso do Sul), Dr. DR. MELISSA PARKER (University of Limerick)

Purpose:The COVID-19 pandemic brought new challenges to teachers; almost instantly, it was necessary to find ways to support teachers to meet their needs regarding remote teaching. Knowing that learning communities (LCs) offer a promising way of sustaining teachers, particularly in turbulent situations, this study explored the experiences of PE teachers in nurturing a learning community (LC) online.

Methods: Participants in this action research project were 12 Brazilian PE teachers who felt isolated and worried about the quality of their remote PE classes, a teacher-facilitator, a critical friend, and one meta-critical friend (Fletcher et al., 2019). Data sources included teacher meetings, conversations between the teacher-facilitator and critical friend and with meta-critical friend, teacher interviews, and teacher-facilitator’s reflexive journal. Data analysis was inductive through thematic methods.

Results:Four themes represent the teachers’ experiences. First, finding pedagogical and emotional support among peers as the LC provided assistance with teaching while reconciling feelings of isolation. Second, building a safe place to share, acknowledging that “teacher-only” LC enabled to the creation of a democratic space to share their practices and vulnerabilities. Third, creating an online group dynamic regarding collective decisions in which an online format would support group’s common needs. Lastly, negotiating to research their own practice and construct a final product, suggesting that engagement in joint project provided meaning and functioned as a catalyst to nurture the LC.

Conclusion:While the online format should not be considered a panacea, for these teachers, at this time, it evolved into an unforeseen possibility of support when designed with them in a meaningful way. The online format connected teachers who sought to, initially, learn together to maintain quality PE. With the LC development however teachers recognised that the support the LC offered took them beyond the current challenges, providing a venue for envisaging professional aspirations.

'Messy Curriculum' - Indigenous Games in the Australian Curriculum: Health and Physical Education

Mr. Troy Meston (Griffith University), Dr. DR. SUE WHATMAN (Griffith University)

This paper examines 1) the racialized construction of the Australian Curriculum Health and Physical Education (AC:HPE) and 2) the utility of Indigenous games as a key mechanism to disrupting the re-production of racialized norms, to 3) facilitate reconciliation between Indigenous and non-Indigenous Australia via the AC:HPE space. Since the Australian Sports Commission published Yulunga Traditional Indigenous games (Edwards & Meston, 2008), many Health and Physical Education (HPE) teachers have experimented with where, how and why these games belong in the HPE curriculum. We argue that Indigenous games have clear educative purposes and are a 'natural opportunity' (Nakata, 2011) to embed Aboriginal and Torres Strait Islander knowledges in the AC:HPE. In utilising Indigenous games inside the AC: HPE space however, educators must grapple with the legacies of White hegemonic knowledge (Yunkaporta & McGinty, 2009; Moreton-Robinson, 2013). In working to mobilise competency across these divides Nakata's (2007) cultural interface is foregrounded as a key mechanism that enables educators to critique and traverse normative hegemonies in order to remake these spaces. The paper illustrates the 'messy' curriculum work that needs to happen more broadly with embedding Indigenous knowledges within the disciplinary traditions of HPE and the personal, political and professional responsibilities that HPE educators are charged with in doing so.

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Co-creating, delivering, and evaluating coach education and health promotion workshops with Aboriginal and Torres Strait Islander peoples in Australia

Dr. ANDREW BENNIE (Western Sydney University), Dr. DR. RHIANNON WHITE (Western Sydney University), Dr. DR. NICHOLAS APOIFIS (University of New South Wales), Dr. DR. DEMELZA MARLIN (University of Sydney)

This presentation focuses on the processes for co-creating, delivering, and evaluating the *Coaching Unlimited* program. *Coaching Unlimited* is a coach education and health promotion workshops series that provides specific opportunities for Aboriginal and Torres Strait Islander coaches to develop their capacity as future leaders in sport and leisure settings within Australia. To guide our evaluation of the first two netball workshops, we used the Ngaa-bi-nya framework – an Aboriginal health and social program evaluation framework. Using the four domains of Ngaa-bi-nya, we were able to confirm the importance of co-creating and delivering the workshops in a culturally safe and inclusive environment. Reflecting on our own processes of doing research and working with Aboriginal communities, we learnt that hosting workshops in and with community, was central to the program’s accessibility and success. The paper concludes by considering the utility of the framework and what researchers can learn about their own practice in the space of Aboriginal sport and health programs.

Élaboration et validation d'un questionnaire sur les préoccupations de stagiaires français en enseignement de l'éducation physique et sportive (ÉPS)

Prof. Jean-François Desbiens (Université de Sherbrooke), Dr. Clement Llena (2. Univ. Lille, Univ. Artois, Univ. Littoral Côte d'Opale, Unité de Recherche Pluridisciplinaire Sport Santé Société, Lille), Dr. Gaëlle Le Bot (Université de Lorraine, Faculté des Sciences du Sport, LISEC)

Le stage est une source d'inconfort et de préoccupations pour les fonctionnaires stagiaires en enseignement de l'éducation physique et sportive (EPS). Ces préoccupations sont des états émotionnels discrets qui signalent de l'insécurité et des tensions devant des situations nouvelles et face au changement (Anhalt & Rodríguez Pérez, 2013). Elles découlent fréquemment de transformations dans les rôles et responsabilités habituels et elles s'actualisent dans l'action du sujet engagé dans des situations de travail qui l'amènent à se questionner (Pelanda Dieci & Tosi, 2014). Une meilleure connaissance des préoccupations des stagiaires peut aider à améliorer l'encadrement de leur stage. Cette présentation décrit la démarche d'élaboration et de validation d'un outil de mesure des préoccupations des stagiaires d'ÉPS en contexte français et en rapporte les résultats.

Un questionnaire en ligne composé de 54 énoncés a été administré à des fonctionnaires stagiaires en ÉPS français durant l'année académique 2018-2019. Des procédures d'analyses factorielles exploratoires (Hair et al., 2006) et quasi confirmatoires (Baglin, 2014) ont été appliquées sur les 196 questionnaires complétés.

La solution factorielle obtenue compte deux facteurs (F_1 : Pratique de l'enseignement de l'ÉPS; F_2 : Appréhension face à l'encadrement et à l'évaluation du stage) comprenant respectivement 12 et 13 énoncés. Elle explique 52,441 % de variance. Cette solution présente un haut degré de fidélité (F_1 : grande limite inférieure (GLI) = ,94 ; F_2 : GLI = ,96). Quatre indices permettant de vérifier la validité de construit (RMSEA = ,018 ; NNFI = ,997 ; CFI = ,998 ; RMSR = ,064) indiquent un très bon degré d'ajustement. Enfin, les indicateurs de validité discriminante et convergente sont satisfaisants.

Nous entendons mener une seconde phase qui permettra de : 1. documenter les préoccupations des stagiaires en temps de crise sanitaire et 2. mener une analyse confirmatoire comparant des modèles concurrents sur un échantillon indépendant.

Facilitating preservice teachers' understanding of Competence-Based Physical Education Curriculum through the Understanding by Design approach

Dr. DR. CHINGWEI CHANG (National Taiwan Normal University), Mr. HUNG-YING LEE (National Taiwan Normal University)

The 12-year basic education is the latest curriculum reform in Taiwan, which emphasizes Competence-Based Curriculum (CBC) and instruction. There is, however, a lack of conceptual tools for converting the new Health and Physical Education (HPE) curriculum guideline into feasible and understandable teaching units by preservice physical education (PE) teachers in terms of PE teacher education. Preservice PE teacher's understanding of CBC plays a crucial role in designing CBC. Purpose: This research aimed to explore how preservice PE teachers understand CBC in PE during the "Physical Education Curriculum Design" course guiding through the concept of Understanding by Design (UbD). Method: 39 participants were involved in the study for 15 weeks (2 hours per week) learning. Data collection was conducted by several qualitative resources, including preservice PE teacher's reflection, teacher's lesson reflective notes, focus group discussion, and the physical education unit structure diagram. Thematic analysis was used and analyzed through the constant comparative method. Results: 1. Preservice PE teachers' pre-understanding: Focusing on superficial descriptions of the HPE guideline and more concerned about the affective and attitude dimension. 2. Preservice PE teachers' understanding in practice: Meaning development is linked to each other according to the progress of the goals setting, assessment, and learning activities. Sports skills' role and function had been renewed and upgraded in terms of CBC. "Taken for granted" perspective was noticed as well. 3. Preservice PE teachers' understanding after reflection: A deeper understanding for designing PE curriculum, concerned much more about learners instead of content itself, holistic approach for inquiring the learning journey in PE. Implications: The course guided by the UbD has the potential to make the preservice PE teachers better understand the concept of CBC and convert to teaching units.

Hegemonic masculinity in Martial Arts: a critical feminist view of pedagogy

Ms. ALBA RODRIGUES (George Mason University), Ms. FABIANA TURELLI (Universidad Autónoma de Madrid), Prof. DAVID KIRK (University of Strathclyde)

This narrative study aims to bring the experiences of being a woman in martial arts with a reflexive critique about the need for women adapting to an environment where hegemonic masculinity prevails to be accepted in this scenario. We offer a critique of traditional pedagogies in two martial arts, Brazilian jiu-jitsu, and karate. The reflexive dialogue presented comes from recordings of virtual meetings and an ongoing journal developed by two researchers and practitioners of martial arts with the help and supervision of a specialist professor in critical pedagogies. Key concepts from the work of IM Young on the feminine within physical pursuits such as throwing or fighting like a girl based our reflexive narrative. The traditional approach to martial arts supports the male preserve ideology by overly valuing “being tough” which can create a hostile environment for women who wish to engage in the practice. The two main themes discussed are (i) ‘criticizing a masculine perspective of Martial Arts’- we discuss pedagogy of pain and suffering to which women embody the hegemonic masculinity by forging their bodies in training sessions and (ii) ‘the meaning of empowerment and fighting like a woman’- we recognize the challenges for pedagogical change and discuss the need to create awareness of the power dynamics of this environment to overcome alienation and achieve meaningful change. Finally, we bring relevant aspects that should be considered to create a safe space for women to engage in martial arts and value fighting like a woman. These aspects should contribute to the birth of a new critical pedagogy in the environment, a pedagogy that is fair, inclusive, and equitable, capable of leading women to empowerment as an individual and social good.

How does physical education teacher education matter? A methodological approach to understand transitions of content areas from PETE to PE.

*Dr. Erik Backman (Dalarna University), Dr. Björn Tolgfors (Örebro University), Dr. Gunn Nyberg (Högskolan Dalarna),
Prof. MIKAEL QUENNERSTEDT (University of Örebro)*

In this paper, we will address the question of how physical education teacher education (PETE) matters and suggest one way to explore the potential impact of PETE. A distinguishing feature of the studies of PETE's impact on physical education is that they *either* include perspectives from preservice teachers involved in PETE courses *or* perspectives from physical education teachers in schools looking back at their education. Longitudinal attempts to follow preservice teachers' journey from education to workplace, in order to grasp how they perceive *the relation* between teacher education and teaching practice in schools, and *transitions* between these contexts, are few and far between. This gap of knowledge is a missing piece of the puzzle to further develop PETE, and to inform courses or life-long professional development for teachers. The purpose of this paper is to present a methodological approach for investigating transitions of content areas from courses in PETE into teaching practice in school physical education. This will be done through combining the theoretical perspectives of Bernstein and Ball with a longitudinal study design. The theory of Bernstein enables us to say something about *how* pedagogic discourses are constructed, recontextualised and realised in PETE and in school physical education. The theory of Ball enables us to say something about *what* content areas become, in terms of fabrications, in the transition between these contexts. The longitudinal design will provide us with answers to how and what pedagogic discourses regarding content areas are transformed into in and between PETE and school physical education. The suggested methodology involves Stimulated Recall (SR) interviews, observations and communication with groups through social media. SR-interviews provides an immediateness in the reflection on teaching practice and content areas. Using social media groups is an effective strategy for maintaining contact with examined preservice teachers when they leave university.

Inclusivity and Intersectionality in Physical Education

Dr. Kyrstin Krist (she/her/hers) (Methodist University)

Inclusivity in Physical Education (PE) is an uncomfortable conversation, yet critical to better understand the PE experience for marginalized groups. The goal of PE is to promote lifetime activity using the fundamental motor skills developed (shapeamerica.org). However, access is given to the privileged populations, and is exclusionary towards those who do not fit into the sociocultural construct of “athlete” or “skilled” (Mette & Agergaard, 2015). Many physical educators believe their pedagogical practices to be inclusive, yet ultimately can exclude some students experiences and lived realities. Normative practices can be exhibited through language used, personal biases both implicit and explicit, and archaic behaviors or practices (ex: locker rooms and dressing out). These practices can exist as a result of complacency or willingness to learn. Locker rooms function as an extension of cis-heterosexual normativism (Herrick & Duncan, 2020). The byproduct then becomes isolation of the “others” who internally and externally identify in a marginalized group. This culture can than illicit fear, self-consciousness, and ultimately cease lifelong physical activity. A culture shift must occur to change the current climate of PE (Herrick & Duncan, 2018). It will come with the ability to recognize well intentioned language like “I am inclusive” which encourages ignorance, suppresses identities, and becomes inclusion evasiveness. The topics and educational practices often require folx to explore their willingness to “keep up” with the ever-changing landscape, and identify moments of ignorance or denial of their practices. The goal of an educator is to educate, those with power have the ability to shift the culture of their learning environment. By examining these topics there is ultimately growth of perceptions and acceptance of all intersections within a classroom.

Indigenous Students and Indigenous Content in Ontario Health and Physical Education: A Scoping Review

Dr. JENNA LORUSSO (University of Limerick / University at Albany, SUNY), Mr. Chris Markham (Ontario Physical and Health Education Association), Dr. DR. JANICE FORSYTH (Western University)

In 2015, the Truth and Reconciliation Commission of Canada (TRC) published 94 Calls to Action to redress the legacy of the Indian Residential School System. These Calls to Action highlighted Canadian educators' moral and ethical responsibilities to contribute to the advancement of reconciliation between Canadians and Indigenous peoples. This presentation documents one step in the Ontario Physical and Health Education Association's evidence-informed response to the TRC. This step entailed a scoping review to chart the English-language peer-reviewed empirical literature published between 2000-2020 related to Indigenous children and youth and Indigenous traditions, cultures, and perspectives in Ontario physical and health education (PHE) and school-based physical activity and health programming. The intention of this review was to support the provincial community by identifying the Ontario-specific evidence-based sources available to inform teachers' support of Indigenous students and Indigenous content in PHE. Searches of targeted academic databases, journals, and article reference lists identified just seven relevant articles. Charting of these seven articles revealed a nearly singular focus on school-based physical health programs/interventions for elementary-aged Indigenous children in primarily remote Northern communities. Charting also revealed a paucity of, and considerable need for, research related to: the PHE context, particularly at the secondary school level; a diversity of Indigenous populations in a diversity of locations within Ontario; and Indigenous traditions, cultures, and perspectives in PHE and school-based physical activity and health programming. In conclusion, we argue these research priorities must be swiftly pursued as Ontario PHE teachers currently have almost no context-specific, refereed information upon which to inform their provision of culturally-relevant Indigenous education, limiting their ability to fulfil their reconciliatory responsibilities. Clearly much work remains to be done and, in light of the myriad challenges Indigenous students face in schools as a result of colonization, this work is urgent.

La formation à distance au service du sport scolaire africain : évaluation du projet initié par le Maroc

Dr. DR. NEZHA ZAHIR (Faculté des sciences de l'éducation)

La formation du capital humain est l'un des leviers de développement du sport scolaire. C'est dans ce sens, que le Royaume du Maroc a lancé, depuis 2016, un projet de formation à distance en entraînement et arbitrage au profit des enseignants de l'éducation physique et sportive, qui vise essentiellement à développer les compétences professionnelles de ces enseignants et en même temps à surmonter les contraintes socio-organisationnelles et spatiotemporelles.

Ce projet va s'ouvrir aux enseignants des pays africains à partir de 2019 dans le cadre de la coopération entre le Maroc et ses partenaires africains visant à promouvoir le sport scolaire en Afrique.

Cet article a pour objectif d'évaluer cette expérience et d'en soulever les enjeux et les leviers de développement. La méthodologie retenue repose sur l'administration d'un questionnaire aux bénéficiaires des pays africains au terme des deux sessions de formation. Les principaux résultats de l'enquête montrent une satisfaction générale malgré quelques difficultés techniques. Enfin, l'article propose des mesures à entreprendre afin d'améliorer l'offre de formation.

La vidéo 360° pour la formation professionnelle des enseignants des enseignants d'EP

Dr. DR. LIONEL ROCHE (Mohammed VI Polytechnic University), Dr. Cathy Rolland (Université Clermont Auvergne)

Les périodes successives de confinement que nous avons connu depuis un an et l'impossibilité pour les étudiants d'accéder aux lieux de stage ont conduit à envisager de nouvelles façons de former les étudiants. En effet, comment préparer les étudiants à l'expérience de classe sans pouvoir s'y rendre ? Dans ce contexte, un dispositif en ligne basé sur l'usage de vidéos 360° (*Form@tion360*, Roche, 2020) afin de pouvoir pallier partiellement l'absence de stage en établissements scolaires a été développé et utilisé dans le cadre de la formation initiale des enseignants. Le recours à ce type de ressources audiovisuelles immersives en formation des enseignants s'est développé depuis quelques années (e.g., Roche & Gal-Petitfaux, 2017; Theelen, van den Beemt & den Brok, 2019; Roche & Rolland, 2020). L'objet de la présente étude est de rendre compte des effets formatifs de l'usage de ce type de ressources pour préparer des étudiants à leurs premières expériences de classe.

Cette étude est une étude de type qualitative, basée sur trois études de cas. Elle s'inscrit dans le programme de recherche du cours d'action (Theureau, 2010) en anthropologie cognitive située. L'objet d'analyse de ce programme est l'activité effective, accomplie en situation réelle, c'est-à-dire dans un environnement physique et social déterminé. L'activité est considérée comme située en référence aux théories de l'action située (Suchman, 1987) et de la cognition située (Hutchins, 1995). Les résultats de cette étude ont permis de mettre à jour deux points de résultats : a) l'expérience vécue par les étudiants lors de situations de visionnement en ligne les conduit à vivre des dilemmes proches de ceux rencontrés en situation réelle d'enseignement et b) grâce au visionnement guidé en ligne par le formateur, les étudiants ont pu construire des connaissances relatives à l'activité motrice des élèves.

Moving within Communities of Practice as an act of performing professional wellbeing within Physical Education settings

Dr. Aspasia Dania (School of Physical Education and Sport Science, National and Kapodistrian University of Athens), Prof.

DEBORAH TANNEHILL (Physical Education and Sport Sciences, University of Limerick)

While an emphasis on the process of social learning within Communities of Practice (CoPs) has emerged as a theme in physical education teacher professional development, there remains debate about whether and how CoPs can function as social structures within which practitioners mutually guide and support each other. Particularly, under non-routine problematic circumstances, it has been apparent that transpersonal processes of thinking and acting together are needed to help CoP members attain a sense of connectedness to respond to work challenges.

The aim of this study was to explore how eleven in-service physical education teachers understood and enacted their CoP participation as a form of social enterprise that affected their professional wellbeing during the Covid-19 pandemic. Data were collected through 60-minute focus group interviews, with teachers divided into small groups according to their years of affiliation with the CoP. Constant comparison and analytic induction methodological approaches were used for data analysis.

Results showed that as participants moved within the CoP structures during the pandemic, they were given various opportunities to interact with other members, material objects, practices, stories, hints or experiences. The above linked them to forms of social enterprise, which were experienced through diverse perspectives of wellbeing, namely capability, interaction, trust and healing.

By employing the concept of “therapeutic assemblage” we argue that CoPs can function as places for professional healing within physical education contexts. Due to the current pandemic situation, we further suggest that there is a potential to pursue work in this area, with a specific emphasis on physical education teachers’ digital CoP interaction and blended forms of professional learning.

Realization and Perception of Distance Learning for PE from Teachers' Perspective: a Case Study from Austria

Mr. Andreas Raab (University of Vienna)

Introduction

The global Covid-19 pandemic heavily affected educational settings. Distance learning over extended time periods became a necessity in many countries including Austria. At the same time the current crisis pushed digitalization within the school system. This shift required teachers in all subjects to acquire and/or re-apply technological and didactical knowledge and posed significant challenges to PE with its diverse motor, biopsychosocial and health-related teaching objectives (Jeong & So, 2020; Varea & González-Calvo, 2020). Against this backdrop, the aim of this research project is to explore how Austrian PE teachers realized and perceived the subject in virtual environments during school lockdowns.

Methods and Procedure

From May 2020 (after the first school lockdown in Austria) to January 2021 32 semi-structured interviews with Austrian PE teachers at lower and upper secondary level (K5 to K12/13) working in urban and peri-urban schools in Greater Vienna were conducted. The collected data material is currently analyzed applying reflexive thematic analysis to identify patterns and themes (Braun & Clarke, 2006). Results will be related to teachers' general understanding of PE as well as opportunities and limits of virtually organizing and implementing the subject. To conclude, implications for incorporating digital media and technology into future (post-pandemic) contact teaching of PE will be discussed.

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Self-Regulated Learning Strategies during Self-Controlled Practice in Physical Education

Mr. JOOP DUIVENVOORDEN (Windesheim University of Applied Sciences, Human Movement and Education Research Centre), Dr. DR. JOHN VAN DER KAMP (Vrije Universiteit Amsterdam, Faculty of Behavioural and Movement Sciences), Dr. DR. IVO VAN HILVOORDE (Windesheim University of Applied Sciences, Human Movement and Education Research Centre), Prof. GEERT SAVELSBERGH (Vrije Universiteit Amsterdam, Faculty of Behavioural and Movement Sciences)

Individual differences in self-regulated learning processes should lead to observable differences in practice behaviors during self-controlled practice. This study aims to uncover such variances in practice behaviors in physical education, and assesses whether these differences relate to self-regulated learning indices.

Seventy-nine students ($M_{age} = 13.1$ years) from four physical education classes practiced a novel aiming task in which they self-controlled playing distance for 10 minutes. Their aim was to improve the distance from which they could score three out of five attempts. We determined students' practice strategies, and gauged self-reported and behavioral self-regulated learning indices.

Pearson correlations revealed three groups based on students' practice strategies: a Distance-group (i.e., adjusted distance based on foregoing distance), a Score-group (i.e., adjusted distance based on foregoing performance), and an Other-group (i.e., no strategy was discerned). No group differences were found for initial ability, self-efficacy and motivation. During practice, students predicted their score prior to each block of five attempts. The accuracy of the predicted score during self-controlled practice was the only significant distinction between groups. The Distance-group underestimated performance whereas the Score- and Other-group overestimated. This study uncovered different observable behaviors that indicate distinct ways in which students apply self-regulated learning processes during self-controlled practice. Results further indicate that planning and monitoring strategies emerge and become apparent during actual practice.

Self-controlled practice potentially enables students to take part in personalizing physical education. For the physical education teacher, the observation of practice strategies can support interaction and give rise to individualized teaching.

The postmonolingual turn: thinking through embodiment with New Confucianism in bodily education and research

Dr. BONNIE PANG (University of Bath)

This presentation examines the ‘turn to’ postmonolingual approach, using New Confucianism to consider the challenges and implications for bodily education and research. A postmonolingual world demands researchers to rethink their dominant language, the knowledge, concepts, and onto-epistemology that this entails, and the power relations that are reproduced in the knowledge production process. In response to these challenges and the need to think differently, this paper addresses the question of how researchers can problematise the normative assumptions, and dominant and/or popular paradigms underpinned by Western onto-epistemologies that negate or ignore different embodied practices of living, thinking, and speaking. It argues for the capacity of the Chinese subject/knower and therefore draws on thinking that originate from a Chinese lineage as a critical thinking tool for reimagining the existing intellectual landscape on embodiment studies as it relates to bodily education. This presentation first provides an overview on how the body has been discussed in contemporary Western social sciences, and how scholars interested in comparative research and dialogue among East Asian/Chinese philosophies, feminist studies and cross-cultural understanding have provided insights into an epistemological critique of the scientific paradigm of thinking about the body. It then focuses on how the latest posthumanist turn has been challenged by postcolonial and Indigenous scholars as disregarding their established worldview and the tendency to erase their epistemes. In concurring with these postcolonial and Indigenous views on reclaiming their intellectual tradition, this presentation offers further examples on how researchers can think with Chinese philosophical perspectives, specifically from New Confucianism. The presentation concludes by considering the potential, caveats and directions when drawing on Chinese philosophical perspectives on researching and educating the body. This way of thinking recasts the legacies of the mind-body and culture-nature dualism that haunt knowledge (re)production in bodily education research in Westernised countries.

To create my career looks like finding my Ikigai: Professional socialization process of PETE students

Dr. Ozlem Alagul (Kastamonu University), Dr. Ferda Gursel (Ankara University), Ms. Seda Canli (Ankara University)

Multifaced professional socialization challenge has been addressed as passive teacher recruitment, persistence of recruits' subjective theories through teacher education programming and pressures to meet institutional standards and accreditation requirements for teacher education in the literature (Richards *et. al.* 2020) and it is suggested to require a return to teacher socialization processes and to reconceptualization of the profession towards a teacher-first identity. It is also important to concern the formation of communities to prepare people to live well in a world worth living in. Starting from this, Practice architectures theory was used as a framework to understand physical education teacher education (PETE) students' career creating process. Specifically, how PETE students' interpret the cultural-discursive, material-economic and social-political arrangements while creating their careers has been investigated in this study.

Participatory action research framed this 15 weeks Career Planning course study in PETE programme. Participants included 38 PETE students, 2 teacher educators and a graduate student. Data collection included weekly reflection meetings between teacher educators and PETE students, researchers weekly meetings after each lesson, PETE students' artefacts, PETE students' reflective diaries and interviews. Data were analysed using inductive and constant comparison methods.

It was found that PETE students "sayings" were ranged from being a coaching orientated teacher who raised talented athletes to being 21st century teacher. Second, PETE students' "doings" were changed from "learning the teaching profession" to "learning to being a teacher" by improving the skills that they can collaborate with in different disciplines. Last, PETE students' socialized by establishing "relatings" with people who added meaning to their lives. So, it can be said that by creating environments especially with using technology where PETE students can experience 21st century skills and collaborate outside of school, they will make them add meaning both profession and their own life.

Understanding student athlete experiences in the early stage of a dual career: a mixed methods approach

Mr. Joni Kuokkanen (Åbo Akademi University), Dr. Jan-Erik Romar (Åbo Akademi University), Prof. Mirja Hirvensalo (University of Jyväskylä)

Although dual career research has grown rapidly over the past decade, a limited number of studies have explored student athletes' experiences at the initial stage of the dual career development process. Rooted in the person-environment fit theory and an explanatory sequential mixed methods approach, this study had two aims: (a) to identify typical profiles among student athletes based on their engagement and burnout symptoms in the school and sport context and (b) to provide descriptions of student athletes' dual career experiences. A sample of 217 lower secondary student athletes ($M = 14$ years, $SD = 0.4$ years) completed a questionnaire on burnout and engagement in school and sport, and a subsample of 19 student athletes participated in follow-up interviews. A person-centered latent profile analysis revealed three distinct profiles: *dual engagement with focus on sport* ($n = 122$), *dual engagement with focus on school* ($n = 73$), and *low sport engagement with burnout* ($n = 22$). The three profiles differed in their engagement toward sport and their level of burnout in sport and school. In the follow-up interviews, student athletes' reported mostly positive experiences, including satisfaction with their external support and their ability to combine school and sport. However, the lack of time-management skills, daily routines, and self-discipline that was evident especially for the low sport engagement with burnout profile highlights a need for enhanced cooperation between families, sports clubs, and schools to provide student athletes with the tools that are vital for managing their dual careers.

Want inclusiveness? Try perspective taking.

Dr. Aubrey Shaw (Idaho State University), Mrs. Elaine Foster (University of Idaho), Dr. Sharon Stoll (University of Idaho)

In the United States, The Rehabilitation Act of 1973, The Americans with Disabilities Act of 1990, and the Individuals with Disabilities Education Act of 2004 were all signed into law so people with disabilities would be included in everyday life. However, even though the laws exist research argues students with physical disabilities continue to be excluded especially in physical education, recreation, and sport. Furthermore, the situation is perpetuated because pedagogy for pre-service professionals is based on understanding disability laws rather than understanding the ethics of inclusion. Therefore, the purpose of this quasi-experimental study was to see the effects of a perspective taking intervention, used as a foundational component of the curriculum in an inclusive physical education and recreation class, on the attitudes and perspectives of pre-service professionals. Ten participants individually completed six online lessons on topics related to disability and perspective taking. The lessons included activities, questions, and reflections. The lesson topics were then used by the course instructor as a framework for dialogue during synchronous class meetings. Results in the qualitative data show attitudes and perspectives of the ten pre-service professionals positively shifted towards fully including students with physical disabilities in physical education, recreation, and sport. Thus, we the authors argue that perspective taking should be a foundational component to adaptive physical education and recreation pedagogy.

What do we learn from the novice teachers' professional socialization? Reflections towards the physical and health education training.

Ms. Anne-Sophie Aubin (Université de Montréal), Prof. Cecilia Borges (University of Montreal)

Becoming a teacher is a complex process involving tensions between professional ideals and personal beliefs (Schempp & Graber, 1992). Novice teachers in Quebec are faced with precarious employment and complex working conditions (Leroux, Beaudoin, Grenier, Turcotte & Rivard, 2016; Mukamurera & Balleux, 2013). Moreover, the physical and health education (PHE) teachers are called upon to become agents of change in the promotion of a healthy and active lifestyle (Armour, 2010; Ovens, 2017), but also to teach an often marginalized subject having its own challenges (Blankenship & Coleman, 2009; Richards, Gaudreault, Starck & Woods, 2018). As pointed out by Dupuy & Le Blanc (2001), it is relevant to understand how beginning teachers experience the heterogeneity of transition and evolve over time. Thus, we intend to study the professional insertion trajectories according to two dimensions: professional socialization and the construction of professional knowledge (Dubar, 2001). To do so, we rely on the concepts of trajectories (Fournier-Plamondon & Racine-Saint-Jacques, 2014), professional socialization (Richard, Templin & Graber, 2014) as well as teachers' knowledge (Borges & Aubin, 2016; Tardif & Lessard, 2004). This communication is based on interviews with six novice PHE teachers throughout a five years' longitudinal study. The data have been analyzed with *NVivo* software to bring out some recurring themes. The analysis highlights teachers' perceptions on their trajectories, their professional socialization, as well as the evolution of their professional knowledge that can be reinvested in their practices. Our preliminary results suggest different trajectory profiles of professional socialization. They also provided us with avenues to better understand the school organization, take a reflexive outlook on the evolution of the professional knowledge and identify types of support that can help novices to navigate through their first years. Therefore, we think that these findings can serve as a basis for reflecting on the initial training.

‘Nobody’s experienced this before’: Global Experiences of teaching and learning in K-12 Health and Physical Education during COVID-19

Mr. Donal Howley (UNC Greensboro), Ms. Seunghyun Baek (UNC Greensboro), Mr. Yanhua Shen (UNC Greensboro), Dr. DR. BEN DYSON (UNC Greensboro)

The purpose of this qualitative international comparative case study design study was to explore teachers’ experiences of teaching and learning in K-12 Health and Physical Education (HPE) settings during COVID-19. Three research questions guided the study: 1) What similar realities has COVID-19 created for teaching and learning in K-12 HPE settings? 2) In what ways have teachers similarly responded to and addressed these realities in their local practice? 3) What support mechanisms have teachers experienced and what additional support do they feel is required? 10 K-12 HPE teachers working in a variety of public, private, and alternative education settings in eight countries (Australia, Brazil, China, Ireland, Mexico, New Zealand, South Korea, and USA) agreed to participate using photovoice and interviews. The *Miles and Huberman Framework for Qualitative Data Analysis* (1994) was implemented, involving a three/four step process including data reduction, data display, and drawing and verifying conclusions. The following thematic findings were drawn from the data: *figuring out (in)flexibility; finding connection; social and emotional support; looking forward; and unearthing inequity*. Global and contextual realities emerged around ensuring student access to knowledge and content, the ability to maintain and build relationships, and the need for social and emotional support. Many of the realities and inequities spoken about here previously existed such as: inflexibility in implementing curricula and assessment; narrow and traditional pedagogical approaches emphasizing physical activity and exercise; establishing connection between students and the subject; and issues around equitable access. The need for continued professional development for teachers on how to utilize remote online blended learning and technology was observed. Further opportunities for teachers, and especially students, to reflect on their experiences of teaching and learning during COVID-19 are needed to better understand how this period has impacted, and continues to impact, HPE classrooms to help inform current and future practice.

‘Physical literacy has been a bit of a buzzword’: Teachers’ Perspectives, a mixed-methods study

Ms. INIMFON ESSIET (Deakin), Dr. DR. ELYSE WARNER (Deakin University), Dr. Natalie Lander (Deakin University), Prof. JO SALMON (Deakin University), Prof. MICHAEL DUNCAN (Coventry University), Dr. DR. EMMA EYRE (Coventry University), Prof. Lisa Barnett (Deakin University)

Introduction: Physical literacy (PL) has garnered substantial worldwide popularity in sectors spanning physical education, sport, and health. Teachers are central in developing children’s PL. Despite being featured (i.e., physical literacy) in several physical education curriculum, research into teacher PL understanding and perception is scarce. The study investigated the understanding and perceptions of PL among Australian teachers of health and physical education.

Methods: An explanatory sequential mixed-methods study design was employed. An online survey, comprising of a combination of open-ended and Likert-type response options, was administered to 174 teachers. Qualitative data were generated from telephone interviews conducted with nine teachers. Descriptive statistics were reported. Bivariate comparisons were made using chi-square tests to explore relationships between teacher training (specialist versus non-specialist), age group, years of teaching experience, and teacher PL understanding. Interview data were analysed using an inductive thematic approach to identify emergent theme clusters.

Results: Respondents ($n=122$) were mostly females (50.0%), specialist trained teachers (80%), with 10 to 14 years of teaching experience (25%). Almost a third (31%) of teachers reported having no understanding of PL, 53% had a partial understanding, and 16% reported having full understanding. There were no differences in PL understanding by teacher training, age group, or years of teaching experience. Qualitative data highlighted misconceptions and narrow interpretations of PL (e.g., focus on fundamental skills only). In terms of perception, although teachers generally appreciated the value and applicability of PL within schools, there remained some scepticism (e.g., ‘buzzword’) regarding the concept.

Conclusion: This study highlights the need to clarify the concept of PL for teachers given their critical role in ensuring effective and successful translation of research into practice. Resources, professional dialogues, and continuing professional development opportunities can support teachers’ overall understanding of the PL concept. This is important for potentially maximizing children’s PL development across the lifespan.

‘There is more room to do it at home’: A micro-sociological examination of the disconnect in physical activity engagement between the school and home

Dr. DR. CAMERON VAN DER SMEE (Federation University), Dr. DR. BRENT MCDONALD (Victoria University), Prof. Ramon Spaaij (Victoria University)

In recent years, there has been a significant push to emphasize the role that the school can play in address declining levels of physical activity. Within the school, PE is often positioned as the primary vehicle for the promotion of this goal. This is despite a growing body of research that is critical of the role that PE can play in affecting physical activity engagement outside of the school. To date, few studies have examined the role that PE may be playing in creating a disconnect for early primary age children (year 1/2) between the physical activities that are engaged in during PE and the activities that they engage in at home. To examine the connection between these two spaces, a six-month ethnographic project was conducted at a primary school in Victoria. The experiences of the children in and across these spaces were examined using a variety of ethnographic and child-centred methods. Drawing on a theoretical approach, combining Bourdieu (1998) and Collins (2004), this presentation will show how the wide range of physical activities that many of the children engaged in outside school were not all valued equally in PE. As a result, this meant that for some children, there was a disconnect between the type of activities that they engaged in freely at home but avoided entirely or engaged in reluctantly at school. The disconnect meant that many of these children were more comfortable to express themselves physically at home than at school. To address this problem, we must take pedagogical steps to align PE more closely with the home environment.

June 8: Symposium

Activité physique des jeunes et enseignement-apprentissage en éducation physique durant la pandémie de la COVID-19 : vers une transformation des pratiques ?

Prof. ALEXANDRE MOUTON (Université de Liège - Département des Sciences de la Motricité), Prof. FRANÇOIS POTDEVIN (Faculté des Sciences du Sport et de l'EP, Laboratoire URePSSS, Université de Lille), Prof. MARIE-FRANCE CARNUS (Université de Toulouse – Jean Jaurès, UMR EFTS), Prof. Nathalie CARMINATTI (Université Paris Est Créteil), Prof. Sylvain Turcotte (Faculté des Sciences de l'activité physique; Chaire de recherche Kino-Québec sur l'adoption d'un mode de vie physiquement actif en contexte scolaire, Université de Sherbrooke)

La situation sanitaire liée à la pandémie de COVID 19 a profondément impacté le style de vie de la population à l'échelle mondiale. Parmi les conséquences observées durant cette période, les mesures de confinement et de distanciation sociale ont entraîné une baisse significative des comportements physiquement actifs, déterminants essentiels de la santé de chaque individu. Chez les jeunes, les premiers résultats montrent, de manière significative, des diminutions du niveau d'activité physique, des augmentations des comportements sédentaires et des baisses de la qualité de sommeil.

Dans ce contexte, l'environnement scolaire est identifié comme un lieu privilégié afin d'intégrer différentes interventions ciblant la pratique d'activités physiques des jeunes, dont celles qui sont directement entreprises par l'enseignant en éducation physique. Néanmoins, le traditionnel face à face pédagogique ayant été perturbé durant cette crise, les enseignants en éducation physique ont été amenés à repenser en profondeur leurs choix et stratégies d'enseignement. Si des recommandations d'adaptations ont été suggérées parfois par les autorités à un échelon national, ce sont essentiellement les enjeux et contextes locaux, les types de conception des enseignants en éducation physique ainsi que leur rapport singulier au numérique, qui semblent avoir déterminé les différenciations pédagogiques observées. Il semblerait que ces enseignants ont été capables de s'engager dans des ingénieries d'un nouveau genre, hybrides didactique cliniques coopératives, en exploitant notamment les ressources numériques.

Au regard de ces constats, ce symposium a pour objectif d'apporter un regard croisé sur les conséquences de la pandémie de la COVID-19, à partir d'enquêtes menées dans différents pays francophones en ayant comme focale privilégiée les deux principaux acteurs de la relation d'enseignement-apprentissage en éducation physique. Les discussions aborderont les implications potentielles pour l'enseignement et la formation des éducateurs physiques.

Learning Communities and Physical Education Professional Development: A Scoping Review

*Dr. DR. MELISSA PARKER (University of Limerick), Dr. DR. KEVIN PATTON (California State University - Chico),
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Dr. CARLA LUGUETTI (Victoria University)*

Introduction/Background

Learning communities (LC) in a variety of formats are touted as an effective strategy for continuing professional development (CPD) in physical education (PE) (Parker & Patton, 2017). Considering the growing scholarship in this area, investigation and critical reflection on the range and nature of the LC research is timely.

Synergy of presentations

In this symposium, we will discuss the results of a scoping review of literature on PE LC for CPD, which included full-text empirical studies in 12 languages available online between 1990-2020. First, the methodology used will be described. Second, a descriptive overview of the 86 identified articles will be provided. Next, the thematic analysis of the narrative findings of the review will be presented. Finally, a discussant will highlight and integrate the contributions of the various speakers.

Key findings

Review of the data resulted in four main themes relating to LC and PE CPD: a) facilitation, b) process, c) outcomes/products, e) and focus. Studies on facilitation reported pedagogies of facilitation, the facilitators' learning, and mentoring. The process of the LC reflected both the stage of the LC (comparable to 1998 Wenger's community of practice [CoP] stages) as well as how groups 'operated'. The LC's outcomes/products varied, highlighting changes in teachers' knowledge, practice, and aspects of empowerment, to the establishment of a culture of trust, respect and support, and student learning. The focus of LC fluctuated between adopting a LC as a generic CPD strategy to using the LC for a specific purpose.

Conclusions

There was a vacillating use of terms resulting in confusion between CoP and LC. Communities were often not theoretically defined, their development process not explained, nor evidence provided as to how they exhibited the qualifying features of a CoP or LC. Additionally, little evidence existed regarding LC impact on student learning.

Overweight and ideal bodies: a tricky educational matter in contemporary Physical Education

Dr. DR. ASTRID SCHUBRING (University of Gothenburg), Dr. DR. HELÉNE BERGENTOFT (University of Gothenburg), Dr. Dean Barker (University of Örebro), Dr. Peter Korp (University of Gothenburg), Prof. MIKAEL QUENNERSTEDT (University of Örebro), Dr. DR. ANNA JOHANSSON (University West)

In contemporary times, young peoples' bodies have become a focal point of attention both outside and inside of school. In physical education (PE), the body has always been central to the pedagogical encounter. However, given the rise of normative discourses on healthy and ideal bodies on the one hand and the diversity in students' identities and sociocultural backgrounds on the other, the body has become a tricky educational matter for PE teachers. In this symposium, we bring together three papers that explore from different angles how PE teachers relate to overweight bodies and body ideals in their pedagogical practice. The papers come from Sweden, where the PE curriculum encompasses education on health and body ideals. Based on the three papers, we will discuss needs and possibilities for improvement in contemporary teaching practices.

Paper 1: Obesity Discourse among Swedish Physical Education Teachers

Presenters: Korp, P.; Johansson, A.; Barker, D. & Quennerstedt, M.

Paper 2: Physical Education Teachers and Competing Obesity Discourses: An Examination of Emerging Professional Identities

Presenters: Barker, D.; Quennerstedt, M.; Johansson, A. & Korp, P.

Paper 3: Teaching on Body Ideals in Physical Education: Didactic Possibilities and Challenges

Presenters: Schubring, A. Bergentoft, H. & Barker, D..

Redesigning school sport and physical activity for inclusion and impact.

Dr. LAUREN SULZ (University of Alberta), Dr. Douglas Gleddie (University of Alberta), Mr. JONATHAN MAURO (University of Alberta), Dr. DR. LOUISE HUMBERT (University of Saskatchewan), Ms. Emily Humbert (Saskatoon Public School Division), Dr. DR. THOMAS QUARMBY (Leeds Beckett University), Dr. DR. RISTO MARTTINEN (George Mason University)

While the benefits of sport and physical activity (PA) are often experienced by individuals, both can play a major role in uniting communities, fostering a sense of belonging, and building social capital. The school is a setting that purports to offer equitable access to sport and PA programs, however, participation remains lower among marginalized populations including, children and youth from low-income households, recent immigrants, girls and young women, and lower skilled youth. Redesigning school-based sport and PA opportunities for inclusivity and participation may increase the number of students who play as well as enhance the quality of their experiences within a welcoming and healthy school sport environment. This two-part symposium will integrate current literature and emergent international research while moving towards future collaboration for the development of inclusive, diverse, and equitable school-based PA and sport programming.

Specifically, Part One consists of four short research presentations:

- a) Sulz, Mauro & Gleddie will share their research with low-socioeconomic families and new immigrants in the context of school sport in Canada.
- b) Humbert & Humbert will focus on the importance of offering an inclusive and engaging school-based PA environment for girls and young women.
- c) Quarmby, Sandford & Hopper will discuss how inclusive before and after school PA is for ‘care-experienced’ youth in England.
- d) Fredrick III, Marttinen & Johnston will focus on the 6 years of research conducted on the REACH after-school program which integrates literacy and PA within under-resourced communities.

Part Two features a brief guided discussion between the presenters to highlight common themes across the research, raise questions regarding methodologies and identify critical gaps in the literature. From there, the session will shift to a broad discussion about opportunities for future collaborative research projects for the benefit of inclusive sport and PA programming in the school setting.

Technology integrated large scale professional learning community for physical education teachers: Design and implementation

Dr. M. Levent Ince (Middle East Technical University), Dr. Deniz Hunuk (Pamukkale University), Dr. Mehmet Ata Ozturk (Middle East Technical University), Prof. DEBORAH TANNEHILL (Physical Education and Sport Sciences, University of Limerick), Dr. Mehmet Yanik (Balikesir University), Prof. Yüksel Savucu (Firat University), Ms. NEHIR KAVI ŞİMŞEK (Middle East Technical University), Ms. SERAP SARIKAYA (Middle East Technical University), Mr. Metin YILMAZ (Firat University), Mr. Hakan Taş (Middle East Technical University)

Purpose

Eventough literature has highlighted the importance of the professional learning community (PLC), there is a dearth of research on the design and implementation of a large scale PLC. Two research questions guided this 3-year research project: (1) How can a PLC be experienced effectively with university-Ministry of National Education collaboration in a provincial socio-ecologic environment? (2) What are the effects of a PLC on teachers and their students?

Method

Three provinces in Turkey (east, west, and central) were chosen with the following five activities; (1) Comprehensive needs analysis of secondary school physical education (PE) teachers competency needs was undertaken, (2) Technology-enhanced synchronous and asynchronous LMS guided learning with the PLC, 3) Teacher facilitators were selected and trained to work in each province, (4) 14 PLCs were designed and facilitated over six weeks, and (5) An impact analysis of PLC on teachers' and the learning of their students' learning was undertaken.

Results

Findings from this study showed that professional development in a PLC, planned based on a teacher competency needs analysis and using web-based training support, can be effectively disseminated throughout the country when provided under the leadership of trained teacher facilitators. Results also showed that the professional learning of teachers participating in these PLCs improved and contributed to their students' learning about the lesson subject.

The symposium would share results of three sections of the large scale research;

A comprehensive needs assessment of physical education teachers in Turkey: First step toward designing quality professional development opportunities.

Design and implementation of a LMS for physical education teachers' learning communities

Effects of a large scale learning community on the physical education teachers' and the learning of their students
Engage the audience in discussion around the findings and implications of this work for professional development that might be undertaken internationally.

‘Doing’ policy differently in physical education: Reflections from engaged stakeholders

Dr. JENNA LORUSSO (x), Prof. Ann MacPhail (University of Limerick), Mr. DYLAN SCANLON (UL), Ms. SUZANNE HARGREAVES (Education Scotland), Ms. Lara Dabbagh (National Council for Curriculum and Assessment), Mr. Mike Storey (Professional Development Service for Teachers)

Policies influence virtually all aspects of education. Educational realities from curriculum content, to teacher education, to classroom instruction, to student outcomes, are shaped in various ways by individual, institutional, and/or local/regional/central government policies. Policies are also themselves shaped by various factors in the policy enactment process, particularly by the actions and inactions of key policy actors such as teachers, teacher educators, and students. Despite the ubiquitous, influential, and multi-directional nature of policy in education, many physical education (PE) teachers and teacher educators/researchers do not see themselves as active policy agents with the capacity to effect policy change and, as such, rarely engage strategically with policy through advocacy, research, or otherwise. With few formal policy preparation systems in PE teacher education, professional development, and graduate programs, this lack of strategic policy engagement can be largely attributed to widely-held policy stereotypes that reflect traditional – and arguably misleading – policy perspectives. These traditional perspectives perpetuate mythical policy views, e.g., policy: is exclusively shaped by formal leaders; exists only as formal written texts that are static and neutral; and is developed and implemented through a linear and predictable cycle of stages. In this symposium, our interprofessional group of PE stakeholders (i.e., teacher educators, researchers, teachers, curriculum developers, professional development advisors), will reflect on how our experiences collaborating across educational roles/spaces to apply alternative policy literatures to practice has helped us to illuminate other, critically-informed, and practical ways of ‘doing’ policy (e.g., policies exist in many formats and can be understood as living documents that are influenced by various groups, in various ways, at various points in the complex and unpredictable policy process). Our hope is that this symposium will alert PE stakeholders in diverse roles/spaces to how interprofessional collaboration can enhance policy engagement in ways that meaningfully influence students’ movement- and health-related needs.

June 9: Oral Live C

360° video : a new tool in PETE

Dr. DR. LIONEL ROCHE (Mohammed VI Polytechnic University), Dr. Cathy Rolland (Université Clermont Auvergne), Dr. DR. IAN CUNNINGHAM (Ontario Tech University), Dr. DR. ADEN KITTEL (Victoria University)

The use of video in teacher education and PETE has a long history (Greenberg, 1971), but new-generation video recorders like GoPro cameras have recently been used (Baghurst, 2016). Over the past five years, we can observe important developments of 360° video uses in teacher education (e.g., Roche & Gal-Petitfaux, 2017). 360° videos of real teaching situations are used for teacher education in multiple disciplines and also in Physical Education (Roche & Rolland, 2020, in press). With these emerging video tools, we can identify a large range of uses of 360° video, including smartphone (with or without head-mounted display, Theelen, van den Beemt & den Brok, 2019), only on laptop (Roche & Gal-Petitfaux, 2017) or online for self-training (Zolfaghari et al., 2020). This study focuses on a blended course approach for scaffolding professional learning. During the course, three main resources are used for trainee teachers: a) an online platform using video resources including 360° video (Form@tion360, Roche, 2020), b) workshop at university and c) internships in schools. The study's objective is to describe pre-service teachers' activity of using 360° videos and characterize formative potential of uses of this tool on the understanding of professional gestures to teach PE. The study used a mixed-method (Tashakkori & Newman, 2010) based on 1) self-confrontation interviews with pre-service teachers and 2) online surveys focused on the platform uses. This study found three main results that characterize the experience of trainee teachers associated with the uses they make of these video resources: 1) an exploratory interest to use 360° video for pre-service teachers; 2) different kinds of uses according to observation's focus and a complementarity of the use of 2D video and 360° video; 3) an experience of substitutive immersion lived by pre-service teachers.

A Pedagogical Content Knowledge Based Course Classification Process for Physical Education Teacher Education Curricula

Dr. DONG ZHANG (Springfield College)

Background: Physical education (PE) is an essential component of school education. PE teachers' ability would directly influence the quality of PE classes. Shulman (1986 & 1987) identified four forms of teacher knowledge, and one of them is Pedagogical content knowledge (PCK). PCK combined the content knowledge (CK) of a subject matter and pedagogies to teach the CK. It is important for an effective PETE curriculum to involve the appropriate number of courses teaching PCK. However, limited studies have been found to analyze the PETE curriculum and the courses through the lens of PCK. **Purpose:** Current study aims to build a course classification process to identify and classify the courses in PETE curricula. **Research questions:** 1) What content should the PCK-based classification process have? 2) How to use the PCK-based classification process? 3) Which research areas could the PCK-based classification process be implemented? **Participants:** Five experts in PE, PETE, and pedagogy participated in this research. All participants were professors of PE at a single college in the north-eastern U.S. **Methods:** This study is a qualitative research design; Semi-structured interviews were used to collect data. **Results:** A PCK-based classification process was built based on the interview data and literature review. Additionally, the curriculum of the PETE program at the participants' institution was analyzed to explain the implication of the classification process. **Discussions:** The PCK-based classification process can identify if a course was a PCK course and classify its level based on the course syllabus. However, the evaluators could collect the evidence through more paths, such as observing the classes. The process is expected to increase the objectivity and credibility of PETE curriculum evaluation and comparison studies. Future studies could focus on the validity and reliability test of the process to improve the practicality.

A wise head on young shoulders? Early career subject experts' integration into the school community.

Mr. Cillian Brennan (Mary Immaculate College, Limerick), Dr. Elaine Murtagh (University of Limerick), Dr. RICHARD BOWLES (Mary Immaculate College, Limerick)

Introduction

In 2012, the physical education (PE) specialism programme was introduced for pre-service generalist elementary teachers in Ireland (Ní Chróinín 2018). This additional training during initial teacher education has the potential to create subject 'experts', supporting the whole school delivery of high-quality PE (Ni Chroinin and Murtagh 2009; O'Sullivan and Oslin 2012). In contexts such as music education, specialist support has been shown to enhance generalist teachers' practices and confidence (Barrett *et al.* 2019).

This study investigates the experiences of a group of PE specialism graduates through a micropolitical lens, examining their experiences of integration into the school community. By exploring 'micropolitical literacy', it highlights teachers' ability to establish themselves within this community as teachers and leaders (Kelchtermans and Ballet 2002a).

Methods

Semi-structured interviews were conducted with eleven PE specialism graduates. Interviewee aided sociograms encouraged participants to reflect on their experiences, engaging in "autobiographical self-thematisation" (Kelchtermans and Ballet 2002b). Teachers rated the factors that influenced their understanding of high-quality PE, and the factors that influenced PE teaching in the school community. This created a visual representation of participants' thoughts, enabling them to direct the interview content (Norris *et al.* 2020). It allowed them to recall the encounters shaping these views, comparing and connecting factors, manifesting their thoughts in greater detail (Norris *et al.* 2020). Thematic analysis of the transcribed interviews was conducted, supported by a network analysis of the interviewee aided sociograms.

Findings and Discussion

Teachers are willing to provide PE support for other staff, if given the opportunity. However, many aren't comfortable eliciting these encounters due to their social professional interests, engaging in strategic compliance (Richardson *et al.* 2013). The micropolitical literacy required to navigate these encounters is rare among early career teachers (Kelchtermans and Ballet 2002b). Further scaffolding may be required to facilitate their development as PE leaders.

Acquiring professional competencies regarding game-centered approaches through teaching examples - a question of medium?

Dr. TIM HEEMSOTH (Universität Hamburg), Mr. LEIF BOE (Universität Hamburg), Mr. FREDERIK BÜKERS (Universität Hamburg), Prof. CLAUS KRIEGER (Universität Hamburg)

Although game-centered approaches are considered to have great potential for PE, PE teachers still find it difficult to teach in terms of these approaches; consequently, skill-based approaches to teaching sports games still dominate. To counteract this, it is assumed that prospective teachers should reflect on more examples of game-centered approaches as part of their training. Empirically, however, it is unclear to what extent such learning environments promote professional knowledge more than learning environments without these examples. In addition, there the question emerges whether learning is better promoted by video- or text-based teaching examples: On the one hand, beginners in particular might more benefit from texts in which information is presented in a linear, step-by-step fashion. On the other hand, videos could depict the spatial-material conditions and moving actors in physical education more authentically. The present study addresses these open questions. Therefore, 136 undergraduate students participated in an experimental pre-intervention-post-study, which was conducted in the context of a regular seminar. Students were randomly assigned to a video group, in which they reflected on a 24-minute scripted video-based teaching example, or to a text group, in which they reflected on a 2,600-word text-based teaching example, or to a control group, in which they completed an open-ended planning task (control group).

Controlling for the pretest, a significant group effect was identified at posttest. Students in the video group showed significantly higher knowledge than those in the text group or the control group. Regarding affective-motivational variables, a superiority of the video group with respect to interest and enjoyment over the other groups was found. For challenge and anger there were no significant effects. The presentation will address conclusions for physical education teacher education as well as limitations of the study.

Alternative Environment Activities on Both Sides of the Atlantic: A Canada-Ireland Consideration and Comparison

Dr. DR. NATHAN HALL (Brock University), Mr. Daniel Robinson (St. Francis Xavier University), Dr. Brent Bradford (Concordia University of Edmonton), Dr. DR. JOSE DA COSTA (U)

In PE curricula, Alternative Environment Activities (AEAs) have been defined as any physical activities that occur beyond the scope of a traditional gymnasium, fitness facility, or sporting field. AEAs help students develop a deeper awareness that there are a multitude of places where they can be physically active, both now and in the future as adults. This presentation will focus on our exploratory and descriptive investigation of PE teachers' embracement of AEAs and whether being a teacher in Nova Scotia vs. Ireland might influence this. Significant differences were found, and the importance of these results will be discussed.

Body as The Ignorant Schoolmaster - An emancipatory lens for PE

Mr. SARKKUNAN VISWANATHAN (University of Auckland)

Physical Education (PE) has always taken pride in being the primary subject focused on the body within the school curriculum. In the recent decade, the field of embodied cognitive science has increasingly influenced non-PE subjects to employ embodied pedagogies to improve their learning outcomes. This redistribution of the *body* across the subjects has put an already marginalised subject of PE in a precarious position where the body propagated by PE may get further ignored. In this presentation, I employ complexity thinking on my personal bout with shingles to suggest that the body acts with an ignorance that could emancipate PE. This ignorance when looked upon epistemically is akin to that propagated by Jacques Rancière's *The Ignorant Schoolmaster* whose eponymous character, Joseph Jacotot discovers through a chance event that one can teach what they don't know and starts advocating that teaching is an act of revealing an intelligence to itself. Jacotot's pedagogical method takes equality as its starting point and proposes that there is only one kind of intelligence, which is the intelligence of anybody. By coupling Jacotot's emancipatory method with immunological knowledge triggered by my bodily experience with the shingles virus, I justify three important claims for PE. Firstly, PE does not need to defend itself against non-PE subjects because the body's immunity is dependent upon its openness to foreign bodies (antigens). Secondly, PE should not fear losing its self while engaging with the *other* because autoimmunity where the body turns on itself can be perceived as an act of self-preservation. Thirdly, although equal intelligence can be propagated by all subjects, embodied pedagogies will highlight that PE is most natural subject for the body because it is only here that it can exist as pure means. In these ways, The Ignorant Schoolmaster will also immunise PE against the posthuman body.

Challenges that teachers face in empowering students to engage in physical and health education

Ms. Karlene Headley-Cooper (Crofton House School)

Teaching and learning are ever-changing lived experiences of every teacher, coach, student, and athlete. The world of education is complex in its pedagogical philosophies and practices, curriculum standards, and social and cultural diversity. Autoethnography allows the educator the opportunity to examine the lived experiences of self and others in a dynamic environment and study how these elements influence who we are and what we do (Starr, 2010). This process can be transformative for the researcher-practitioner and the reader, thereby pursuing the intent to initiate self-reflexive awareness and encourage positive change (Spry, 2001; Starr, 2010). As an educator, an additional value of autoethnography is the opportunity to bridge the gap between research findings and teacher practice. Previous research on athlete-centred sport (Headley-Cooper, 2010; Kidman 2005; Kidman & Lombardo, 2010), developing thinking players (Cooper & Gordon, 2020; Pill, 2017), diversity and inclusion (Dimitrov & Haque, 2016; Hartwell et al., 2017), and inquiry-based learning (Buchanan et al., 2016; Pepin, 2017) will be used to ground the lens through which lessons learned from teaching are presented. Teaching physical and health education during a pandemic creates significant logistical difficulties, it also highlights the importance and need of educators to recognize and attend to the holistic health and well-being of their learners. Student engagement encourages feelings of empowerment, positivity, personal well-being, and also supports deeper learning (Bowden et al., 2019). A holistic approach to teaching and learning can draw valuable lessons from the central tenets of athlete-centred coaching, developing thinking players programs, diversity and inclusion, and inquiry-based learning. Given the widespread nature of challenges in teaching and learning, this oral presentation intends to spark motivation for physical and health educators to pause, reflect, adapt, and refine their holistic approach during these challenging times.

Creating an autonomous supportive learning environment in Physical Education using Mobile apps

Mr. MUHAMMAD SHUFI BIN SALLEH (National Institute of Education, Singapore)

Physical Education (PE) plays a key role in providing students a holistic learning experience with opportunities to acquire the knowledge, skills, right attitudes and values towards the pursuit of a lifelong physically active and healthy lifestyle. To prepare our students for the future, we also need to equip them with 21st Century competencies like “critical and inventive thinking” and “information, collaboration and communication skills”. The objective of this presentation is to illustrate how PE teachers can tap on mobile apps such as Sworkit Kids, QR code scanner, Video delay and Clipstro to promote self-awareness, self-management and self-directed learning in a cooperative setting. Through the perception survey, it is clear that students enjoyed the activities proposed. More importantly, students were also more motivated as they find greater meaning and purpose to engage in these activities through the provision of an autonomous-supportive learning environment. Through the proposed strategies, PE teachers will benefit as they are able to position themselves as facilitator of learning as opposed to the instruction-giver. Lessons become more student-centred as students have the opportunity to learn to take ownership of their learning, set meaningful goals and find solutions to the problems at hand.

Developing principles of practice implementing models-based practice in physical education teacher education

Dr. Kellie Baker (Memorial University of Newfoundland)

What is known and understood about the ways in which teacher educators develop pedagogies of teacher education is under-researched. Importantly, when researched and shared, others can apply this knowledge to their contexts, supporting both their work as teacher educators and the ways in which pre-service teachers (PSTs) learn to become teachers. **Purpose:** Develop and articulate personal principles of physical education teacher education (PETE) practice using Models-Based Practice (MBP). **Method:** Self-study of teacher education practice methodology guided collection of teacher educator and PST ($n = 9$) data. PETE practice focused on teaching PSTs about and through four pedagogical models: Teaching Personal and Social Responsibility, Cooperative Learning, Peer Teaching, and Teaching Games for Understanding. Over the course of a year and a half, the following data were gathered: a reflective teacher journal, 79 annotated lesson plans, 27 PST individual interviews, two PST focus group interviews, and PST work samples (e.g., 16 PST reflective writing assignments). A deductive approach was used to map concepts from a pedagogy of teacher education theory (Loughran, 2006) onto the data. **Results:** Three principles of practice are identified: a) providing opportunities for beginning teachers to learn both *about and through* MBP provides unique insights into using MBP, b) experiencing and examining alternatives to MBP provides PSTs with opportunities to practice pedagogical decision making, and c) individual and group meetings support teacher educators and PSTs in crystallizing understandings of MBP implementation in PETE. **Discussion:** The articulation of personal principles of practice for implementing MBP in PETE offers insights into how pedagogies of teacher education might be examined, developed, and shared for use by others. Findings from this research also build on the crucial role of interaction in S-STEP by establishing the value of PSTs as *critical contributors* in the development of teacher educators' personal pedagogies.

Development of PE pre-service teachers' teaching performance during a long-term internship - A mixed-methods analysis of classroom videos and the written self-reflections of the PE pre-service teachers

Dr. DR. STEFFEN GREVE (Leuphana University of Lueneburg), Dr. DR. KIRA ELENA WEBER (Leuphana University of Lueneburg), Dr. Bjoern Brandes (University of Osnabrück), Ms. JESSICA MAIER (Universität Hmburg)

The present study investigates how the teaching performance of German physical education pre-service teachers (PE-PST) in primary school (n=11) changes during a long-term internship. At the beginning and the end of the internship lessons were filmed and evaluated with the Classroom Assessment Scoring System (CLASS) K-3 (Pianta et al., 2008). The results showed low scores in the domain of *Instructional Support* and no positive development of teaching quality over the course of the internship (Greve et al., 2020). To further elucidate this circumstance, the related written self-reflections of the PST were examined using a mixed-methods design. A quantitative content analysis revealed that the PST paid little attention to the area of *Instructional Support*. An in-depth qualitative content analysis showed that the experienced practice and the advice of the mentors at the schools had the greatest influence on the PST's reflections and accordingly on changes in their teaching actions. However, these two influencing factors only lead to changes in the surface structure of instruction and do not trigger questions about the deep structures of *Instructional Support*. Consequently, PST give more priority to maximizing physical activity time than to e.g. problem-solving processes. However, physical activity time without sufficient *Instructional Support* mainly benefits the high-performing students. Therefore, especially with regard to differentiation of all students, the domain of *Instructional Support* should be given a higher priority in the context of long-term internships and in related reflection stimuli.

Greve, S., Weber, K., Brandes, B., & Maier, J. (2020). Development of pre-service teachers' teaching performance in physical education during a long-term internship - Analysis of classroom videos using the Classroom Assessment Scoring System K-3. *German Journal of Exercise and Sport Research*, 50,343-353. <https://doi.org/10.1007/s12662-020-00651-0>

Pianta, R. C., La Paro, K. & Hamre, B. K. (2008). *Classroom Assessment Scoring System. Manual K-3*. Baltimore: Paul H. Brookes.

Enhancing Physical Education Opportunities Using the Flipped Learning Approach: Pilot Study Results

Dr. DR. CHAD KILLIAN (Georgia State University), Prof. Amelia Woods (University of Illinois)

Background:The flipped learning approach (FLA) uses online modalities to support student engagement with content in preparation for related applied learning tasks during face-to-face instruction. A primary purpose for using the method is to increase active learning, which aligns well with a subject like physical education (PE) that prioritizes physically active learning. Several studies described PE teachers' views on flipped learning and reported on the positive impact of its use on PE student learning and motivation. However, no studies have explored the influence of the FLA on student PA outcomes, teacher behavior, and lesson level variables or its capacity to expand, extend, and or enhance PE opportunities. **Objective:**The purpose of this study was to examine the impact of the FLA applied within a middle school PE invasion games unit. **Method:**One class participated in a unit taught using the FLA, while another class participated in the same unit taught through direct instruction. The System for Observing Fitness Instruction Time (SOFIT) was used to observe both classes during the five-lesson unit to assess and compare student PA, lesson context, and teacher involvement. Paired samples t-tests were applied to compare SOFIT outcomes between instructional methods. **Results:**Students receiving flipped instruction participated in an additional 7.0 ± 3.2 minutes of PA per lesson ($p=.008$) and 34.4 more minutes of PA across the five-lesson unit, which was greater than the mean observed lesson length for both classes (32.2 ± 1.9 minutes). Differences in teacher involvement and lesson context offered insight into potential mechanisms responsible for added PA in flipped classes. **Conclusions:**The FLA offers a promising method for increasing active learning opportunities in PE. Teachers who transitioned instruction during the COVID-19 pandemic might consider new applications for online content upon return to face-to-face schooling by finding ways to embed it within the FLA.

Fitness Funatics: A Before-School Program to Enhance Preservice Teachers' Practicum Experience

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Physical education (PE) preservice teachers are recommended to acquire the knowledge and skills to competently implement Comprehensive School Physical Activity Programs (CSPAPs) in schools. Before-school PA program is a type of CSPAP that can increase students' daily PA engagement. Previous research suggest that preservice teachers lack hands-on experience in implementing CSPAPs in schools. The purpose of this study was to highlight the practicum experience received by preservice teachers through a U.S. university-middle school partnered before-school PA program named "Fitness Funatics". The program was implemented for 8 weeks (30 minutes; three-times per week) in Fall 2019, where middle school students engaged in moderate intensity level of fitness activities and games. Small groups of preservice teachers conducted three school visits during the 8-week period, where they assisted the PE teacher in implementing Fitness Funatics as part of their university coursework. Through focus group discussions, the preservice teachers felt that the Fitness Funatics practicum was a meaningful experience. For instance, one preservice teacher said: "It was a lot of hands-on experience. I got to get involved with a lot of the kids." The program was disrupted midway in Spring 2020 due to the pandemic and the preservice teachers could not complete their practicum. Nonetheless, relevant experience was received through their limited number of visits, as one preservice teacher mentioned: "I sadly only got to go once, but on that one time that I went. . . it was a great experience." An alternative practicum was designed for the preservice teachers to complete their "visits" where they created PA sessions and engaged their family members or friends in a virtual setting. Importantly, partnering with schools to implement before-school programs created opportunities for preservice teachers to gain valuable practicum experience in implementing CSPAPs and should be considered for integration into university PE curriculum.

Learning experiences of 'dark pedagogy' from university students' retrospective memoirs

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Introduction

'Dark pedagogy' first emerged from German pedagogical literature on 'schwarze Pädagogie'. 'Dark pedagogy' includes grievance, bullying, sexual, physical, or mental harassment or abuse, and inciting terror. The effects of these behaviours range from emotional impacts to cases requiring legal intervention. The aim of this study was to uncover university students' 'dark pedagogical' experiences at school and/or sport clubs.

Methods

Following approval by the host University's Research Ethics Committee, a survey questionnaire was developed to elicit retrospective memoirs from students at the University of Physical Education, Budapest. A content analysis was conducted on the data with responses being triangulated to ensure reliability.

Results and Conclusions

Two hundred and forty-two students (female = 52%) responded to the study with 118 (49%) students reporting a 'dark pedagogical' case. These cases were classified into five ascending categories (category five included the most serious). Results showed that the bulk of cases took place in sports clubs (41%), with mainstream schooling (35%), and physical education lessons (24%) ranking next. Data revealed that more than half (53%) of the total reported cases were classified as "less serious", with themes such as 'unworthy teachers', 'coach behaviour', 'relationship problems', and 'unfounded presumptions' (false accusations) being prevalent. The "more serious" cases included, in order of predominance, 'psychological terror' (regular behaviour causing fear, intimidation, or contempt for personality) (25%), 'verbal and physical aggression or abuse' (16%), and 'sexual abuse or harassment' (3%). A further three percent remained unclassified.

In conclusion, it is suggested that sport organisations and schools should develop policies, structures, and systems to prevent or deal with 'dark pedagogy'. Additionally, education for staff, parents/guardians, and young people should take place to raise awareness. Those measures would protect and safeguard young people in these institutions.

Key words: dark pedagogy, young people, schools, sports clubs, abuse

Learning to teach on the fly: Transitioning from doctoral student to teacher educator in PETE

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Background: Scholars have extended occupational socialization (OST) to examine the recruitment, preparation, and ongoing socialization of physical education teacher education (PETE) doctoral students and faculty members. Recent research on PETE doctoral preparation describes the early challenges with transitioning into a faculty position, yet little is known about the degree to which individuals perceive how their experiences and doctoral studies prepared them to assume the teacher educator role. **Purpose:** Through the lens of OST, the purpose of this study was to understand PETE faculty members' perspectives on their preparation for and experiences in the role of teacher educator. **Method:** Conceptualized as a qualitative panel study as part of an ongoing longitudinal study, the participants included 23 early-career, U.S. PETE faculty members. Qualitative data were collected through one individual interview and teacher education-focused excerpts from interviews spanning a five-year period ($M = 4.36$ interviews per participant). Data were analyzed using both deductive and inductive analysis and constant comparative strategies. **Results:** Many of the participants noted feeling underprepared for their impending roles yet held an internal desire to continue developing into effective teacher educators. Specifically, themes included: (a) doctoral education provides experience with teaching but lacks specific guidance, (b) doctoral education focuses on research but introductory positions focus on teaching, and (c) PETE faculty are intrinsically driven to develop as teacher educators. **Discussion/Conclusion:** Higher education faculty have been conceptualized as disciplinary stewards who have the responsibility to usher their professions toward a more favorable future. The findings from this study, however, imply that doctoral education and early career experiences may not adequately prepare faculty members to fulfill the role of teacher educator. Doctoral PETE programs should consider the time devoted to the development and support of graduates transitioning into faculty positions from a teacher education capacity.

Migration Flows And Lion Dance At The Reunion Island : When The Chinese Great History Meets The Family Trajectories Through Patrimonial Physical Practices-to-be-mediated

Dr. Idriss SOUNE-SEYNE (Reunion Island University, Laboratory ICARE), Dr. DR. CHINGWEI CHANG (National Taiwan Normal Uni.), Prof. NATHALIE WALLIAN (The Reunion Island University, Laboratory ICARE)

Originally untouched, the Reunion Island has been settled by several successive waves of migration, from slavery to indentured service and engagement labor (“coolie trading”). More than 5 000 Asian persons (Hakkas, Nam Sung from Guangzhou) established in this Island, what represents about 3% of the population. This Community is nowadays strongly shaped by associations that mediate the Chinese culture, the values and religious practices, among them The Lion Dance, what is a sacred danced inspired by Wu Shu Martial Art. Skillfully based on values, body techniques and rituals, the Master teaching allows the young practitioners to be in touch with the family cultural roots. Furthermore, the traditional practices during calendar festivals consist of a true initiation process of socialization and of recognition directed at a time towards others and among the Community.

This study’s aim was on the relationship between the family tradition’s mediation of Chinese body culture and the migration trajectories that made the Lion Dance practice living among the Community. Interviews of relevant figures of the Community (N = 20; T = 60’ each; 120485 words) let appear a true concern about the mediation towards Community French pupils that loose slowly the Chinese language (Hakka, Cantonese), values and cultures. Far from a casual folk dance, the Lion Dance summerized the quintessence of the educational project of a migration community mindful of preserving roots and identities. When relating the single family trajectories, the inquired persons expressed the ancestral strategies for keeping shared cultural bases while trying to survive and to flourish among other communities. The Masters targeted nowadays “to transmit and to flourish” their art at the cross of the passed/present Chinese culture, of the common/diverse cultures and of the French national/Reunion local patrimony. The Lion Dance constitutes a strong vector of cultural mediation, community identification and tolerance values.

Moring Physical Practice At The Elementary School : Appropriation and/or Denaturation In The Post-colonial French Reunion Island?

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The Moring is a danced martial art formerly practiced by former slaves in the Indian Ocean (Mozambique, Comoros, Madagascar, French Reunion Island). Nowadays, this physical practice expresses under three main social body cultures : ancestral rituals of memory, sport competition and community performances. At Reunion Island, its presence in the public space remains confidential, particularly at school : teachers refrain from including this practices into the Physical Education Pedagogical Content Knowledge.

This study's aim was on the elementary school pre-service teacher's expectations and representations on this social practice in PE. Two student classes (first Grade Master in Elementary School Teaching; N = 2 X 100) were inquired with a video-based test and semi-directed focus groups about their teaching expectations on physical education and Moring. Results showed deep resistance sources about this practice's presence in PE and revealed their underground representations of The Reunion post-colonial school targets. Everything happened as if the Moring was at a time considered as 1) an indecent appropriation of a patrimonial testimony by people external from the reunion community and 2) a distortion process of normalization due to the PCK elaborated for school teaching/learning. In between these conceptions, pre-service teachers argued their lack of knowledge and of teacher education for teaching this practice.

These results question the meaning and the relevance of the local/global physical practices proposed at elementary school as "social practices taken as reference". If PE presents a cultural opportunity for discovering the common local heritage and for educating towards shared human values, then the representational system of The Reunion elementary teachers will to be transformed so as to include meaningful social practices in prevision of the cultural patrimony mediation.

Physical education in Swedish schools: The impact of lesson frequency on ninth-grade students' behavioral, normative and control beliefs

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Introduction: Physical education (PE) is essential for adopting a physically active lifestyle. The literature supports a positive causal influence of PE lesson frequency on students' physical activity and motor development. There is also evidence associating PE lesson frequency with cognitive development and academic achievement. Arguably, due to traditional hierarchies among school subjects, having one (30' -50') or two PE lessons weekly contradicts with the daily minimum of one-hour movement recommendations for youth.

Aim: This study aims to analyze the impact of weekly PE lesson frequency on students' beliefs. A belief refers to a person's judgment of the truth or falsity of a proposition, indicating the subjective probability of performing specific behaviors.

Method: A stratified random sample of 1736 ninth-grade students from 51 schools in Sweden completed a questionnaire measuring behavioral (BB), normative (NB), and control beliefs (CB) (Fishbein & Ajzen, 2010, Predicting & changing behavior: reasoned action approach). Employing structural equation modeling techniques, testing for invariance highlighted three student groups: Gr-A with one lesson/week (14.5%), Gr-B with two lessons/week (73.3%), Gr-C with three or more lessons/week (12.2%).

Results: The analysis revealed a second-order model on beliefs with a close fit (RMSEA=.03; GFI=.96). Results from latent mean comparison indicated overwhelmingly significant differences ($p < .001$) with medium to large effect sizes. With the latent means of Gr-A as a baseline, the differences were BB=+.31, NB=+.30, CB=ns for Gr-B and BB=+.77, NB=+.33, CB=+.26 for Gr-C. The latent means of Gr-C were BB=+.49, NB=ns, and CB +.22 in comparison to Gr-B.

Discussion: The higher the weekly PE lesson frequency, the more positive the students' beliefs are. The effect size is large considering behavioral beliefs, that constitute the cornerstone of attitudes towards movement and exercise. As PE is a site for all youth, the benefits of more frequent lessons ought to be pinpointed to stakeholders.

Qualitative analysis of volleyball timeouts content with a 3D device

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In the literature, one of the major points of interest concerning the timeouts in collective sports is the moment and the impact of the request (Prieto et al., 2016 ; Abreu et al., 2017 ; Fernandez-Echeverria et al., 2019) but the qualitative analysis of the content is significantly less frequent. The aim of this study is to fulfil a gap in the literature in analyzing the selection of the information given to the players during the timeout. We used a 3D device to immerse 17 coaches in a simulation of a volleyball game and used the think aloud protocol (Ericsson & Simon, 1993) to collect the observations made during the game. The coaches also gave a feedback to the players at each timeout. After the sequence, the coaches rated the observation on a 0 to 10 points scale. With the data, we analyzed two factors defining the qualitative selection of the information during the timeouts: the ability to give to the players the elements considered as the most important and the delay between the timeout and the observation of the element given. The results show that only 2 coaches succeed to transmit the most important observations to the players during the timeout and that the selection of the information seems to be better when the team is losing. The analyze of the data also reveals that coaches don't seem to be influenced by the short-term memory as, in most cases, the information transmitted was not composed by the observations made just before the timeout. The use of the new technology has allowed us to treat a domain few studied so far and to draw perspectives for the coaches' training in giving us the possibility to have a direct access to the observations made during the game.

Secondary PE-teachers' superiors on teacher professionalism and professional development

Dr. Lars Borghouts (Fontys University of Applied Sciences, Eindhoven), Dr. Menno Slingerland (Fontys University of Applied Sciences, Eindhoven)

Introduction

Scientific reviews suggest that continuing professional development (CPD) is most effective when teachers experience ownership; that is, they should be involved in determining the goals and contents of the professional development (Roesken-Winter, Hoyles, and Blömeke 2015). In addition, a substantial amount of time should be invested by the teachers involved and institutional support is key. Within the context of physical education (PE), CPD has been characterized as fragmented and poorly supported in terms of resources (Armour, Quennerstedt, Chambers, and Makopoulou, 2015). Given the importance of institutional support in CPD, the present study sought to explore the views of secondary PE-teachers' superiors on teacher professionalism and professional development.

Method

We conducted semi-structured interviews with eleven secondary PE-teachers' superiors in the Netherlands. These were audio recorded and transcribed verbatim. Data were analyzed using framework analysis, which is a systematic and flexible approach to analyzing qualitative data mainly in a deductive manner although providing room for themes to be constructed inductively from the data.

Results

Preliminary analysis revealed that the supervisors perceive the PE-departments as pro-active with regards to professional development, and they are generally viewed as eager to innovate and develop. However, large differences often exist between teachers. The content of professional development activities is usually determined both by PE-teachers themselves and centralised by school. However, supervisors aren't always well-informed about the specifics of CPD PE-teachers follow, and CPD appears to be somewhat unstructured. Both in financial and temporal terms, most teachers do not deplete allocated resources. Supervisors stressed their concerns for CPD causing lesson drop-out.

Discussion/conclusion

Although analysis is still ongoing, it appears that secondary PE-teachers' superiors in the Netherlands support CPD and have a positive view of PE departments' professionalism and professional development. However, there seems to be room for improvement with regards to a structured and focused approach.

Struggles and Successes of Pre-service Teachers when implementing a student-centered integrated curriculum in an After-School Program

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The importance of grounding what pre-service teachers (PSTs) learn in their teacher preparation with practical experience has been underlined by many as a strategy that can have a significant impact on student learning, increase teacher retention and enhance PSTs competence in the classroom (Jenset et al., 2017). Since hands-on experiences can be challenging to provide during a teacher education program and are usually restricted by the curriculum in place in the host school, after-school programs (ASPs) can provide an environment conducive for PSTs to explore new content while refining their pedagogical skills. Therefore, the purpose of the study was to examine PSTs' experience in implementing a student-centered curriculum (REACH) in an ASP set in a low socioeconomic school. Using Chevallard (1985) didactic transposition framework along with Shulman's (1987) knowledge-base nomenclature, journal and interview data from nine PSTs and field notes from the main researcher and his assistant were analyzed using constant comparison. Three themes were identified: 1) Transposing the Formal Written Curriculum into something manageable, 2) Navigating the complexities in integrating content, and 3) Learning to teach. PSTs were able, by the end of the year, to look at the goal for the lesson and create learning opportunities that were a blend of the written curriculum, and the transposition of that curriculum based on their knowledge and that of their students to create the lesson taught. Their limited content knowledge made it difficult for them to negotiate the constant modifications and negotiations that are needed when considering the *Didactique triad* of student, content, and teacher (Amade-Escot, 2006). However, the experience was overall positive and either reinforced their desire to enter the teaching profession or allowed them to grow. Providing this kind of learning opportunities at an early stage might provide the 'hook' teacher education programs need to retain PSTs.

Students showering after PE: A contemporary issue? Analysis of the declarative practices of PE teachers in the integration of showering in lessons

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Context - Very attentive to their image and cleanliness, adolescents have good personal hygiene, especially sporting teenagers. However, very few students take a shower after PE, which is contrary to contemporary sports practices (Frydendal, 2020). Some countries have addressed this issue by using showering as a learning support, while others provide minimum facilities for students. In France, even if students report problems about showering, no study has been conducted on teachers' practices. Our objective is to analyse teachers' experiences and perceptions about integrating showering into their PE lessons, particularly the obstacles encountered.

Method - Using questionnaires, we studied French teachers' declared practices in the use of showering in PE lessons by identifying the following: a) the availability and state of infrastructure, b) teachers' experiences and perceptions.

Results – For a major part of respondents, main obstacles are the state of infrastructure and time devoted to showering. Depending on teachers' profile classified, sporting experience and training impact the way they integrate showering in PE lessons.

Conclusion - This study questions the infrastructure problematic and the time dedicated to PE in showering. Showering could be a teaching support that enables students to learn autonomy, hygiene, water management, self-knowledge, and relationships with others. Overall, showering after PE should be a learning issue like any other, thought out, programmed, and to which teachers devote time in order to respond to the contemporary issues of the discipline (Moen, 2018).

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Teacher interactions that facilitate learning in online professional development: A case study of social media

Mr. Jonathon Mckeever (University of Birmingham), Dr. DR. VICTORIA GOODYEAR (University of Birmingham), Dr. DR. MARK GRIFFITHS (University of Birmingham)

Background: The opportunities for teachers to engage with online professional development (PD) has expanded in the last decade, with increased use, demand and accessibility of Massive Open Online Courses (MOOC's), social media, blogs and podcasts (Elliott, 2017). However, the processes and pathways of online learning that lead to impacts on teachers' practices remain unclear (Lantz-Andersson et al., 2018).

Aim: To investigate teacher learning through a focus on teacher interactions using the learning attributes framework (Colley et al., 2003; Greenhow & Lewin, 2016) - that enables analysis of real-time interactions through social media.

Methods: The research design was a case study, and data were collected within a 4-month online PD course that used the social media platform Slack to facilitate interaction and discussion between 72 teacher participants, from international contexts. Data were generated from 641 posts made to Slack by teachers, with the learning attributes framework used to frame the analysis and to make sense of the data.

Results: The analysis identified three themes that explain how teachers learn through online interactions on social media: transparency, facilitation, and flexibility. Learning occurred when participants were supported to interact with a wide range of members and information (transparency), facilitators connected questions and guided discussions (facilitation), and when participants were able to engage at varying levels at different times (flexibility).

Discussion: This paper extends knowledge about online professional development by employing new methods to understand digital learning cultures, with findings highlighting how factors such as transparency, course facilitation, and flexibility of engagement can mediate learning. This has significance for PD providers, and how the learning attributes framework can support the emergence of more participant-led learning cultures using social media.

Teachers' organization strategies to overcome pandemic constraints in Physical Education and School Sports activities

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The objective of this study was to analyse the measures that Physical Education teachers used to face the constraints caused by the physical distance rules due to the Covid19 pandemic, in the face-to-face context of Physical Education and School Sports classes in secondary schools in Madeira Island, Portugal.

The study was based on the qualitative method including the participation of 9 Physical Education teachers from 9 schools through a semi-directive interview held in the first post-confinement period (between September to November 2020). The choice of participants was voluntary and anonymous, according to ethical recommendations for investigation.

The data showed that the pandemic situation caused constraints and implications for the organization and planning curricular activities and school sports. Decisions were made at the school administration level, but also in the level of the teacher's authority and organizational skills, namely: reducing the number of students per class; adjustments to class schedules; suspension the sports activities that involved a higher risk, such as basketball, swimming, gymnastics, dance and judo; circuit tasks per stations; predominance of the "command" teaching style through individual tasks and with a focus on the technical and physical component; reduced and conditioned games with limited distance between students. As an alternative to indoor sports facilities, five of the nine teachers acknowledged having been successful using the school's natural spaces and outdoors activities, especially in activities such running and orientation, *levada walking* and pedestrianism, as well as nautical activities carried out in partnership with local organizations.

It was concluded that the use of school autonomy, the flexibility of curricular management and the organizational skills of the teacher, were important variables to solve the constraints caused by the safety rules. Limitations and recommendations for improving teacher intervention on the curricular management were considered.

The Global Design Challenge for Sport and Physical Activity: An Innovation Engine during the Pandemic

Dr. Fiona Chambers (University College Cork), Dr. Manolis Adamakis (University College Cork), Ms. Catherine Carty (Munster Technological University, Tralee)

The Global Design Challenge for Sport and Physical Activity: An Innovation Engine during the Pandemic Background

We are living in three intertwined pandemics - Covid-19 and physical inactivity/sedentary behaviour, according to Hall et al, (2020) and the sustainability of the planet. Covid-19 is having a transformative impact on how communities engage with sport and physical activity. We can no longer think in cookie-cutter ways, but must embrace a human-centred approach to innovation. This paper describes the genesis, implementation and impact of the university-led Global Design Challenge for Sport and Physical Activity (GDCSPA) which was enshrined in Kazan Action Plan (2017).

Methodology

To create the GDCSPA, we used design thinking (HPI, 2018). Data were collected (e.g. empathy and journey mapping, etc.,) and analysed (via thematic analysis) in each of the six stages.

Results

We launched the GDCSPA through the Devpost platform - 187 teams registered for the challenge, across 40 countries and 12 time zones with 37 finalists incubated. There were two key findings: (i) the three main policy areas of the KAP proved vital for the GDCSPA focus and (ii) the KAP (2017) SDG mapping tool was an important impact measurement tool.

Conclusions and Implications

The GDCSPA is a powerful human centred innovation engine. It can: (a) harness the power of global partners; (b) crowdsource prototypes for incubation from diverse teams; (c) build design thinking capability; (d) act as a global maven connecting organisations, people, ideas, funding and expertise; and (e) bridge the policy-practice conundrum.

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« L'œil de l'entraîneur » comme manifestation d'une connaissance indigène Comprendre et former à l'intervention

Dr. Cathy Rolland (Université Clermont Auvergne), Dr. DR. LIONEL ROCHE (Mohammed VI Polytechnic University)

Dans la recherche épistémique destinée à comprendre les pratiques professionnelles, honorer les modes de connaissances indigènes suppose de les décrire fidèlement afin que les praticiens puissent conjointement s'y reconnaître et s'y découvrir.

Dans le champ de l'entraînement sportif en gymnastique artistique, choisir comme objet d'analyse l'activité réelle (Barbier & Durand, 2003) d'enseignement des habiletés par les entraîneurs implique l'élaboration de descriptions qui respectent le point de vue des acteurs. Ainsi, approcher leurs expériences perceptives lorsqu'ils cherchent à donner du sens aux réalisations des gymnastes pour guider leurs apprentissages, suppose la construction de catégories compréhensives qui débordent les propos spontanés de sens commun des praticiens et qui s'émanent des cadres théoriques pré-établis, dans la mesure où ils empêchent d'emblée de saisir l'authenticité de l'expérience vécue. Conjointement, l'épaisseur de l'expérience ne peut s'atteindre qu'en considérant que l'activité, ici et maintenant, est l'actualisation de possibilités indéterminées, qui émanent, selon l'hypothèse énative de l'autonomie des êtres vivants (Varela, 1979), de l'interaction dynamique de l'acteur avec son environnement (Poizat, Durand & Theureau, 2016). Dans la mesure où ces actualisations sont l'expression située de ressources cognitives référentes, les décrire consiste à révéler leurs caractéristiques générales, typiques, ainsi que leur expression idiosyncrasique.

L'étude (Rolland, 2015) a pris appui sur la documentation de l'activité des entraîneurs, dans ses dimensions observable et expérientielle, au moyen notamment d'entretiens d'explicitation. Elle a révélé que cette activité s'organise autour d'un concept pragmatique (Pastré, 2011) intégré à une structure d'intelligibilité métaphorique qui fait voir les habiletés comme des déplacements conduits par les gymnastes.

Pour former à l'intervention au moyen de ces résultats, nous proposons aux formés des expériences immersives dans des vidéos de situations écologiques d'intervention, destinées à encourager l'identification de régularités opératoires au cœur du particulier. Il s'agit de favoriser la construction des ressources cognitives, sources d'ajustements créatifs aux circonstances originales d'intervention.

“I didn’t know what to expect” – the experiences of fresher student-athletes in a non-elite university sport setting

Dr. RICHARD BOWLES (Mary Immaculate College), Dr. DR. ANNE O'DWYER (Mary Immaculate College)

Athlete-centred coaching seeks to empower participants by involving them in their own learning in an environment characterized by shared decision-making between coaches and athletes (Kidman, 2005). Intentions to coach in an athlete-centred way are grounded in a social constructivist view of learning, and informed by a positive pedagogical approach that places an emphasis on understanding the specific coaching context (Light & Harvey, 2019).

This paper is part of a broader research project where the authors engaged in a collaborative self-study while attempting to integrate athlete-centred principles into their coaching practices in a university setting in Ireland. As coach-researchers with a background in teacher education, they sought to gain a deeper understanding of the athletes they coached. Consequently, in this paper the experiences of first-year athletes on the university Gaelic football team during the 2019-2020 season are explored.

A research assistant conducted focus group interviews with a cohort of ten athletes early in the season, and again after it had concluded. The authors were provided with an anonymised set of transcripts that they analysed using the 6-step process developed by Braun and Clarke (2013).

The findings suggest these athletes enjoyed the pedagogical approaches employed by the coach-researchers. While acknowledging that they were apprehensive before the season commenced, they described how the welcoming atmosphere helped them to integrate into the team, and they became sufficiently confident to undertake some leadership roles as the season progressed. They valued the friendships that had developed during the season and believed that participation in college sport had enhanced their overall on-campus experience. These findings highlight how athletes can flourish in a supportive pedagogical environment.

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June 9: Oral Live D

“What we learn is okay, but most of it I already know from my parents” - Physical education and inclusion at the intersection of social class and ethnic background

Dr. DR. INGFRID THORJUSSEN (NLA University college)

The purpose of the presentation is to offer insight on the interplay between family, social background and inclusion in physical education (PE) contexts, and to discuss and reflect upon implications of this insight in PE practice. In recent years increased attention has been given to the complexity of postmodern societies, marked by migration, ethnic diversity as well as growing social inequality. In education, the attention involves looking at how students experience inclusion and meaningful learning experiences regardless of their ethnic and/or socioeconomic background. These questions are particularly relevant in PE and health education. Firstly, scholars illuminate how prevailing health discourses in many western societies construct health and healthy lifestyle choices as individual responsibilities. In such contexts, children's development of physical capital might become largely dependent on the resources of the family. Secondly, research have illuminated how western discourses around 'health and fitness' and 'sport and performance' embed homogeneous images of healthiness that exclude 'non-normative' ways of being. Underpinned by an intersectional perspective and Anthias' term narratives of location two questions are asked 1) how are differences in the students' ethnic and social class background relevant for the physical narratives students bring to PE?, and 2) how does the students' narratives influence on their meaning-making of PE? The study is composed of participant observation in 56 PE lessons in two multi-ethnic co-ed PE classes and semi-structured interviews with 17 students in a public school located in Oslo, the capital of Norway. The analysis highlights important differences in the students' physical narratives and how their background influence upon their meaning-making in PE. Critical issues that I will discuss are 1) socialization into sport and physical activity at the intersection of ethnicity, gender and social class, and 2) the prevalence of pathological health perspectives in the students meaning making of PE.

A self-study of ethical issues that emerged in a participatory action research with refugee-background young people in grassroots football

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Introduction/Background

Over the last two decades, we have seen a body of research that discussed methodological and ethical issues when working with refugee-background young people in sport contexts. Although the ethical complexities in PAR with refugee-background young people are well-acknowledged, there is little empirical research that aims to explore the ethical issues that emerge, particularly taking a self-study approach.

This self-study explores the ethical ambiguities and dilemmas that emerged in a participatory action research (PAR) with refugee-background young people in a grassroots football program in Melbourne. Theoretically, we are guided by the work of Black and Chicana feminists, and specifically their concepts of critical ethic of care.

Method

The project comprised a six-month PAR in a football programme in Australia. Participants included the first author and 13 African Australian refugee-background young women (including the second author). Multiple sources of data were collected, including lead researcher observations collected as field notes (21 pages) and debriefing meetings with the second author (16 meetings/101 pages). Data analysis involved inductive and iterative analysis using thematic analysis methods (Braun and Clarke 2019).

Results

The ethical issues involved: (a) the challenges of negotiating identities and the impact on building relationships and trust; (b) the dilemmas in the collective struggle and resistance to forms of oppression; and (c) the need of sharing power and the fear of losing research control. We suggest that the ethical issues that emerge in PAR should be viewed through a critical ethic of care lens where ethics is not colourblind or power blind.

Conclusion/Discussion

Critical ethic of care offers a suitable theoretical framework for exploring the ethical ambiguities and dilemmas that emerged in a PAR with refugee-background young people. It provides a critical lens where ethics goes beyond harm minimisation to interrogate social injustices and reveal power imbalances.

Adolescents' perspectives on the barriers and facilitators of physical activity: An updated systematic review of qualitative studies

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Abstract

Worldwide, the majority of adolescents present low levels of physical activity (PA)¹. Listening to adolescents' voices has been considered to be crucial to promote meaningful PA opportunities². Therefore, an updated systematic review of the available qualitative literature on adolescents' perspectives on the barriers and facilitators of PA was conducted according to Preferred Reporting Items for Systematic reviews and Meta-analyses guidelines. Studies published between 2014 (date of the last systematic review²) and 2020 were searched in the 'Web of Science', 'EBSCO' and 'SCOPUS' databases. Based on the inclusion and study quality criteria applied, 30 studies out of 8069 studies were included in the review. Thematic analysis was used to inductively analyze the perspectives of ~1250 adolescents aged 13-18 years. The studies took place in 13 countries from different continents and were mainly cross-sectional. The main barriers and facilitators of PA were related to: Physical and motor skills; PA attitude, knowledge and understanding; Motivation; Perception of competence and self-efficacy; Perception of body image and exposure concerns; Perception of femininity and sociocultural norms; Fun; Time and competing interests; Family, friends, and significant others influence; School-based PA and physical education; Environmental factors; Lifecourse factors; and Youth agency. By transnationally framing adolescents' voices, this study provides updated evidence and discusses innovative implications for developing tailored interventions and pedagogical strategies aimed at promoting active and healthy lifestyles.

References

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An exploration of ‘integrated learning experiences’ in Leaving Certificate Physical Education through a community of learners

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Leaving Certificate Physical Education (LCPE), a certificate examination subject in a high-stakes environment in the final two-years of post-primary schooling, has two explicit bodies of knowledge, i.e., theoretical and practical knowledge. The curriculum promotes the notion of ‘integrated learning experiences’ which blends both forms of knowledge. Through a collaborative community of learners, two teacher educators and two practicing physical education teachers worked together to construct teaching resources for ‘integrated learning experiences’. We aimed to explore how teachers teach integrated learning experiences for LCPE and the possibilities of such experiences. A secondary aim of this project was to create and sustain a community of learners between the research team which spans across the teacher education continuum.

This action research process took place over one year as (i) the teachers observed their LCPE lessons and describe such observations to the teacher educators, (ii) the research team constructed the teaching resources, (iii) the teachers enacted and reflected on such teaching resources, and (iv) the research team evaluated and modified the teaching resources for dissemination. Further, 12 post-primary students were interviewed in focus groups to explore their response and understanding of ‘integrated learning experiences’.

The action research cycle highlighted the challenges in teaching integrated learning experiences given the school context, e.g., timetabling issues whereby teachers only had a certain amount of timetabled time in the sports hall. The teachers reflected positively on the possibilities and potentialities of integrated learning experiences and the student data confirmed increased student learning of theoretical and practical knowledge when taught through integrated learning experiences.

The community of learners worked collaboratively, sharing differing perspectives on teaching and learning, and co-constructing teaching resources which provided evidence-informed approaches to practice. Keeping in line with the collaborative nature of this research, this presentation will be delivered by both teacher educators and practicing teachers.

Developing evidence-informed principles for trauma-aware pedagogies in physical education

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There has been much focus recently on the impact of trauma on young people in light of the COVID-19 pandemic (WHO, 2020). Yet prior to this, childhood trauma was already recognised as a global health epidemic (DoH/DfE, 2017). Trauma can result from adverse childhood experiences (ACEs) which refer to a range of stressful events (e.g. experiencing abuse or neglect) that children and youth have been exposed to (Felitti et al., 1998). Significantly, care-experienced young people (i.e. those who are placed under the care of the state) are especially likely to have experienced trauma (Gallagher & Green, 2012; DfE, 2019), the impacts of which – neurologically, physiologically and psychologically – can have lasting, negative effects (SAMHSA, 2014; Dye, 2018). It is argued that understanding the impact of trauma, and the responses it might evoke, is beneficial for teachers and coaches working with/for young people, especially in contexts like physical education (PE) where participation is public, and the body plays a central role. Indeed, it can facilitate an understanding of *why* some individuals have difficulties with learning, building relationships and managing behaviour. Drawing on our collective experiences of working with care-experienced youth and practitioners in PE and sport-related contexts (Cox, 2017; Quarmby et al., 2020; Sandford et al., 2021), we suggest five evidence-informed principles that might be helpful when seeking to enact trauma-aware practice: (1) ensuring safety and wellbeing, (2) establishing routines and structures, (3) developing and sustaining positive relationships that foster a sense of belonging, (4) facilitating and responding to youth voice and, (5) promoting strengths and self-belief. These all point to the need for creating safe environments, shaped by consistency, positive connections and opportunities for interaction and engagement. Within this paper, we examine the alignment of these principles with broader work within the field and consider the implications for practice.

Do students having special educational needs have positive experience in physical education?

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Background. For students having special educational needs (SEN), physical education (PE) may be the only opportunity to engage in a regular physical activity practice (Arnell et al., 2018). However, many of them are less actively engaged or undergo negative social experiences in PE (Wilhelmsen & Sørensen, 2017). Previous studies showed that teaching practices and type of activities have major influence on the students' experiences (Haeghele et al., 2020). **Method.** This qualitative interpretative study was part of a larger research action including 14 PE teachers who sought to improve inclusive PE practices in a mainstream context. Semi-structured interviews were conducted to document 45 students with SEN experience and appreciation of PE. Sample includes 21 elementary (15 boys, 6 girls; mean age 9,3 years) and 24 high school (17 boys, 7 girls; mean age 15,4 years) students with SEN. All elementary students were in regular groups. In high school, 18 students were in special groups for academics. However, all the 45 participants followed the general PE program. **Results:** Inductive thematic analysis revealed that student mostly appreciated PE. Positive experiences were related to enjoyment, to the novelty of activities, to the improvement they perceived, the support provide by the teacher and to socialization possibilities. Negative experiences are related to activity preferences, lack of competence and motivation, or discomfort with some activities. The results will be discussed in regard to age, characteristics and sex of the students. A contrast will be made between primary and high school student's perspectives.

Conclusion: Unlike previous studies, most of students with SEN appreciate PE in this study. Positive experiences seem in line with the dimensions of situational interest theory (Roure & Pasco, 2018). Thus, findings highlight the importance of supporting enjoyment, challenge, novelty and competence to encourage positive experiences of students with SEN in a mainstream PE context.

Effects of a Jigsaw method on students' motivation: when the type of physical activity matters

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Cooperation in physical education (PE) can be a way to reduce difference between students and a way to learn to live together. Based on the principle of cooperative learning, the Jigsaw method aims to engage all students through learning situations that maximize social and cognitive gains (Buchs & Butera, 2015). A literature review in progress (Cochon Drouet et al., in preparation) shows that the effects of the Jigsaw on motivation variables varies between studies. It seems interesting to study the role of the type of physical activities (PA) proposed in PE on the effects of the Jigsaw on students' motivation. The aim of this study was to compare the effects of the Jigsaw method on students' motivation in two PA units: racket sports and gymnastic activities.

In all, 136 students ($M_{age} = 14.11$, $SD = 1.24$, 51% boys, aged 13-15) were involved in this study: 92 in Jigsaw condition, 44 in control condition. Motivation was measured during the 3rd and 6th lessons during teaching sequences in racket sports and gymnastic activities thanks to an accelerometer on students to measure the moderate to vigorous physical activity (MVPA) and thanks to the situational interest (SI) questionnaire (Roure, Pasco, & Kermarrec, 2016).

The effects of the Jigsaw on motivation varied between the two PA units. Indeed, compared to classes in the control condition, the Jigsaw improved MVPA and the challenge and novelty dimensions of SI in gymnastics activities, whereas it deteriorated them in racket sports. Moreover, these difference between the two PA increased between the 3rd and 6th lessons. The PA appears to be an important moderator of students' motivation. This study allows to guide teachers for the selection of PA when implementing the Jigsaw method. The structure of the Jigsaw seems to be better adapted for gymnastics activities than in racket sport.

Emotional labour, Compassion fatigue, and Burnout in Alberta's Educational Workers

Dr. ASTRID KENDRICK (University of Calgary)

This two-year funded study is investigating the extent and experiences of Alberta educational workers, including teachers, administrators, support staff, and leaders, with compassion fatigue and burnout. The findings of the first survey and qualitative interviews indicates that without intervention, burnout and compassion fatigue may have a devastating impact on educational workers. This session will discuss the findings and implications of this important study, as well as provide suggestions for preventing compassion fatigue and burnout in educational workers.

History, System and Cultivation of Physical Literacy: New Zealand experience and Enlightenment

Ms. HAN MENG (College of Physical Education and Health, East China Normal University, Shanghai)

Introduction : The cultivation of students with physical literacy has become a central strategy of the global physical education reform movement, especially in Western countries (Whitehead, 2019). However, there are little research on this topic in China. The purpose of this research was to examine the development experience of New Zealand's physical literacy, and to give enlightenment to China.

Method : A document analysis of the New Zealand physical literacy policy, which addressed the development history, composition system and cultivation path of physical literacy in New Zealand. In addition, an attempt was made to deepen the understanding of New Zealand physical literacy related policies and strategies in the areas of sport and education through expert interview method and focus group.

Results : national health crisis, the experience of foreign physical literacy, the unique characteristics of the nation and the four-dimensional model theory of health are the driving forces for the development of New Zealand physical literacy, and the historical process is logically consistent with the national sports strategy. The New Zealand physical literacy composition system covers the physical, social and emotional, cognitive and spiritual fields, and forms the five stages of infant, child, youth, adult and old age based on the whole life cycle. New Zealand focuses on the development of physical literacy for 0-18 years old, provides high quality reference standards for young people through the establishment of quality indicators of physical literacy, and takes physical activity, games and play, and school physical education as important approaches to the development of physical literacy.

Conclusion : In the future, China needs establish a perfect physical literacy research network, and construct a systematic physical literacy development strategy. Exploring the development path of physical literacy based on special national conditions according to local conditions; Strengthen the exploration of physical literacy training, information publicity and development of quality standards.

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How Distance Learning Implemented During COVID-19 Pandemic Impacted the Engagement of French students in Physical Activity and Sports Specialization

Prof. Jean-François Desbiens (Université de Sherbrooke), Dr. DR. ORIANE PETIOT (Université de Rennes 2), Dr. DR. JÉRÔME VISIOLI (Université de Rennes 2)

In France, the brutal and unprepared implementation of distance learning (DL) in response to COVID-19 has modified drastically the conditions of Physical Activity and Sports (PAS) students training. How did it affect their engagement, a variable that is correlated to achievement (Fredricks, Blumenfeld & Paris, 2004)? This study aimed to: Assess the impact of DL on PAS students perceptions of engagement in their curriculum; Compare these perceptions according to sex and level of advancement in training (LAT). A mixed sample of 1229 French PAS students at different LAT (License 1 (L1) to Master 2 (M2)) filled a short questionnaire. All items were rated on a four point ordinal scale (1 : I totally disagree to 4 : I totally agree). After descriptive statistics were computed, comparisons for students' sex and LAT were made using the Kruskal-Wallis and Mann-Whitney U tests. A multiple correspondence analysis (MCA) was performed to examine the interaction between all variables. Significant differences were found between male and female PAS students except for positive emotional engagement. More negative impacts of DL on emotional, behavioral and cognitive engagement were mostly associated with male students and higher level of training (L2 - M2). Those results may seem counter-intuitive for two main reasons. First, beginning female students' engagement in similar physical activity training context has been shown to be more fragile (Desbiens, Kozanitis & Lanoue, 2013). Second, the measures taken by the French public authorities have always been in favor of L1 students, who were presented as the foremost collateral victims of the pandemic. The results show, on the contrary, that their experience of DL was associated with less disadvantageous impacts on the three dimensions of engagement. A follow up study should evaluate how the participants' experience of DL during the COVID-19 period impacted academic outcomes and dropout rates.

La pratique d'activité physique et d'éducation physique dans les écoles francophones du Nouveau-Brunswick : Pistes de réflexion à court, moyen et long terme.

Dr. Vicky Bouffard-Levasseur (Université de Moncton, campus d'Edmundston), Dr. Roger LeBlanc (Université de Moncton), Dr. Said Mekary (Acadia University), Dr. Horia-Daniel Iancu (Université de Moncton)

Introduction:

Seulement 39% des élèves canadiens, et 32% des élèves du Nouveau-Brunswick (N.-B.) atteignent les normes en matière de mouvement sur 24 heures. La Société canadienne de physiologie de l'exercice suggère que les jeunes de 5 à 17 ans devraient accumuler au moins 60 minutes par jour d'activités physiques (AP) d'intensité modérée à élevée. Le milieu scolaire est un lieu propice où les élèves peuvent développer leurs habiletés motrices fondamentales (i.e. littératie physique). Cependant, l'AP et l'éducation physique (EP) sont rarement prioritaires dans les curriculums scolaires. Elles sont fréquemment affectées lors de compressions budgétaires afin de prioriser l'enseignement d'autres matières jugées plus importantes.

Méthodologie :

Trente-cinq (N=35) enseignant(e)s francophones en éducation physique au N.-B. (EFEPNB) ont accepté de répondre volontairement à un questionnaire en ligne (17 questions) portant sur des pistes de réflexion afin de favoriser la pratique d'AP et d'EP dans les écoles du N.-B. à court (< 1 mois), moyen (>1 mois < 6 mois) et long terme (>6 mois).

Résultats et discussion :

À court terme la promotion à différents niveaux (interne, externe et à la maison) semble être une avenue intéressante et peu coûteuse. À moyen terme, la formation de comité (interne et externe) pouvant inclure des membres de l'école ou de la communauté pourrait s'avérer une initiative efficace, car les EFEPNB ont l'impression d'être les seuls à devoir promouvoir la pratique d'AP et d'EP au sein de leur école. À long terme, des politiques favorisant l'augmentation des niveaux d'AP et d'EP au quotidien devraient être mises en place au N.-B.

Conclusion : À court, moyen et long terme, adresser les lacunes en AP et en EP dans le système scolaire au N.-B. est urgent afin d'assurer que les élèves du Nouveau-Brunswick rencontrent les normes nationales et développent leurs habiletés motrices fondamentales (i.e. littératie physique).

PE teachers' professional knowledge on exclusion processes in PE – Development of a questionnaire

Ms. Laura Becher (Paderborn University), Prof. Elke Grimminger-Seidensticker (Pad)

Background

Grimminger (2014) identified different PE contexts where pupils often convey exclusion behaviour by using different strategies. Therefore, PE teachers need professional knowledge to prevent exclusion behaviours and the associated negative outcomes for pupils' development. Following Shulman's (1986) taxonomy, different types of knowledge can be differentiated: pedagogical content knowledge, content knowledge and general pedagogical knowledge.

An instrument assessing context related professional knowledge on handling or preventing PE exclusion processes is still missing. Thus, a questionnaire was developed by using study results on PE exclusion processes, bullying and classroom management. The items were pre-classified to the knowledge taxonomy.

Methods

$N=115$ participants ($n=110$ PE teachers, $n=5$ PETE students) filled in an online questionnaire with 59 items. After checking prerequisites, an exploratory factor analysis with a PCA and varimax rotation was calculated.

Results

The exploratory factor analysis revealed three factors after extracting items under 0.4 factor loading; 36,3% of the variance can be explained. Results indicate that professional knowledge on handling or preventing exclusion processes is reflected in the factors: *Enhancing prosocial behaviour* (17 items; $\alpha=.80$), *Method competence* (4 items; $\alpha=.70$) and *Controlling style* (6 items; $\alpha=.27$). While the first and second factor have a good internal consistency and underline the importance of pupils' participation as a preventive opportunity for action, the third factor's internal consistency is not acceptable. Also, the taxonomy of professional knowledge is not reflected. So, we could suggest that the different domains can only be differentiated on an analytical level, but on a "practical" level, they are linked in topic specific domains like in the identified factors. However, further research is needed.

Pedagogies for social justice in secondary school HPE – Insights from the EDUHEALTH research project 1.0

Dr. DR. ROD PHILPOT (University of Auckland), Dr. DR. WAYNE SMITH (University of Auckland), Dr. GÖRAN GERDIN (Linnaeus University)

Health and Physical Education (HPE) is a compulsory subject that is charged with providing important physical and social health outcomes for young people, yet as HPE teacher educators and researchers, we recognise that the way HPE is often taught in schools does not always provide equitable outcomes for all students.

The aim of the EDUHEALTH project was to identify school HPE teaching practices that promote equity and social justice. Data collection was based on principles of critical incident technique (CIT) methodology (Tripp, 2012) and stimulated recall interviews (Lyle, 2003). Data were generated through 20 HPE lesson observations and post-lesson interviews with 13 teachers purposively selected (Bryman 2016) from four schools in Aotearoa New Zealand, four in Sweden and three in Norway. Classroom observations focused on incidents that appeared to be addressing issues of social justice. To gain a deeper understanding of the teachers thinking, stimulated recall interviews followed observations. Data were analysed through a six-phase thematic analysis approach that consisted of familiarisation with data, initial and advanced coding, identifying and naming themes and reporting findings (Braun and Clarke 2013).

The findings presented in this paper will show how what we have coined ‘pedagogies for social justice were enacted through *building relationships, teaching for social cohesion, and explicitly teaching about, and acting on, social inequities*. We argue that social justice pedagogies should have elements of humanism that attend to the needs of students within the structures of each society, but also need to challenge these structures and provide students with the agency to address equity issues in their lives and the lives of others. We conclude by calling for the further research that seeks to understand how teachers enact pedagogies for social justice in HPE but additionally, methodological approaches that explore how students understand these teaching pedagogies.

Physical Education teachers as adaptive experts and the search for innovation

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Anchored in the tradition of qualitative research, this study aims to describe and to identify the search for innovation in Physical Education and the paths taken by teachers towards changes. This is a multi-case, biographical and collaborative study, with four experienced Physical Education teachers from elementary public schools in Cuiabá, Brazil. The theoretical framework is based on studies on innovation in education and especially on the notion of adaptive expert, i.e., those people that are most likely to change their skills and continuously expand their knowledge throughout life, who have the perception that estimated practices need to be changed (Hatano and Oura, 2003). Data collection took place in 2018 and 2019, through a semi-structured interview about teachers' education and their professional trajectories. Among the results, the following innovations can be highlighted: the diversification of content and methodological strategies; the insertion of badminton in the classes and the creation of extracurricular project with badminton training classes; the use of exergames and the creation of a gameroom at school; the creation of extracurricular projects of rhythmic gymnastics and dance and performing annual show at the theater. Innovation was motivated by the desire to diversify classes, going beyond teaching team sports that are traditionally taught and also offering a longer training period for students from public schools, who have few cultural and sports opportunities. Teachers have a diversified professional training and path. In the face of the daily difficulties, they sought creative solutions to overcome the lack of materials and suitable sports facilities. Furthermore, at school, or outside of it, these teachers established partnerships with others professionals and invested in communities of practice to innovate in Physical Education. Throughout their lives, they sought to expand their skills and professional knowledge, acting as adaptive experts in Physical Education and being committed to their students.

Recycling and Resistance to Change in PE: The informal recruitment of PE teachers in schools

Dr. MICHELLE FLEMONS (St. Mary's University, Twickenham), Dr. Joanne Hill (University of Bedfordshire), Dr. Toni O'Donovan (Loughborough Grammar School), Prof. Angel Chater (University of Bedfordshire)

Background: Physical education (PE) is resistant to the pedagogical change necessary to meet the needs of today's society. Previous studies have noted that students form limited and often misinformed thoughts, feelings, beliefs and perceptions (the subjective warrant) surrounding the ease of entry (permissiveness) into PE teaching, based on considerable time observing their own school teachers (apprenticeship of observation). A group habitus develops based on shared beliefs and practices that have been recycled from one generation of teachers to the next. The shared beliefs and practices have contributed to the resistance of the profession to change. Without fully understanding how the profession announces itself to potential recruits, the informal recruitment process in schools, and role of the PE teacher as gatekeeper for the profession, PE's resistance to change will perpetuate. *Purpose:* By analysing the recruitment and socialisation experiences of PE teachers, this paper argues that the informal recruitment process during school can limit which students can enter the profession, irrespective of who wants to enter. *Methods:* In depth semi-structured life story interviews were conducted with 27 PE teachers at different career points: pre-PETE, 1 year and 5 years+ into teaching. *Data analysis:* Thematic analysis using Bourdieu's habitus, field, practice and capital as a thinking tool was adopted. *Findings:* PE teachers hold an informal recruitment process during school limited to those who demonstrate effort, enthusiasm and physical competence within the constraints of the traditional curriculum. Therefore, the profession predominantly announces itself to students who emulate the group habitus inherent within the PE field. *Conclusion:* PE teachers are central to equipping potential recruits for career entry by selecting and preparing students whose strengths lie within the traditional curriculum. Independent careers advice could diversify exposure to the profession, adding variety to the collective beliefs held within PE, thus endorsing opportunity for change.

Secondary school students' motivation towards physical education: The role of mastery climate TARGET teaching strategies

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Introduction

The TARGET (Task, Authority, Recognition, Grouping, Evaluation, Time) framework (Ames, 1992; Epstein, 1989) with its underlying teaching strategies is considered useful to create a favourable mastery climate (Braithwaite et al., 2011). A learning climate in which students' motivation, and with that engagement and effective learning, is supported. However, to effectively intervene and modify the PE learning environment, it has been suggested to further examine the unique contribution of the various TARGET dimensions in specific contexts (Morgan & Carpenter, 2002). Therefore, we examined to what extent the different TARGET teaching strategies perceived by students, correlate with and explain variability in students' motivation towards PE and tried to identify which TARGET dimensions are the most important predictors for student motivation.

Method

3,150 Dutch secondary school students (48.2% girls, 51.8% boys; $M=13.91$; $SD=1.40$) completed an online questionnaire. Students' motivation towards PE, from the perspective of the self-determination theory, was assessed by means of the Behavioural Regulations in Physical Education Questionnaire (Aelterman et al., 2012). To assess to what extent different mastery climate TARGET teaching strategies were applied by the PE teacher according to students, a newly developed questionnaire was used. Pearson correlation analysis was employed to explore the relationships among variables. Multilevel regression analysis was used to examine to what extent the TARGET dimensions predicted students' motivational quality.

Results

Although the data analysis is still ongoing, preliminary results indicate that there is a significant positive relationship between student-perceived application of TARGET strategies and high-quality (i.e., autonomous) student motivation. The task, evaluation and recognition dimensions appear to be the most dominant predictor variables.

Discussion/conclusion

These findings could provide a basis for a more targeted approach to establish a mastery climate and with that positively influence student motivation towards PE.

Social and emotional learning in Physical Education: Teachers' perspectives of implementation, student learning, and professional development

Dr. DR. BEN DYSON (UNC Greensboro), Mr. Kevin Stuttle (East Hill Elementary School)

The purpose of this research was to investigate Elementary Physical Education (PE) Teachers' perspectives of Social and Emotional Learning. This was a qualitative case study research design utilizing qualitative interview methods (Stake, 2005; Merriam, 2015). Data were collected through in-depth interviews with a video-conferencing system named 'Zoom'. Fifteen elementary PE teachers with 15-35 years of teaching experience, were interviewed individually, and in small focus groups (3-5 teachers) on Zoom, from different states across the USA from California to New York. The data were analyzed using a systematic process of qualitative data inductive and deductive analysis (Miles, Huberman, & Saldana, 2014). This process followed transcription, organization of raw data, creation of descriptive codes and inferential codes. Triangulation, member checks, and peer debriefing were consistently implemented to ensure the trustworthiness of this study (Denzin & Lincoln, 2011; Miles, et al., 2014). The themes that were drawn from the interview data were: *Empathy and communication, Recognizing and managing emotions, Teachable moments, Play, Context matters, and Professional development needed*. This research suggests that PE is uniquely positioned to address the social and emotional development of the "whole child" from a humanistic approach to education in our discipline. Increasing the focus of SEL in PE, especially through creative play and innovative pedagogical models, has the potential to impact the development of positive classroom climates, schools, and our communities.

Teacher educators' views of Social and Emotional Learning strategies in Physical Education: An international perspective

Ms. Seunghyun Baek (UNC Greensboro), Dr. DR. BEN DYSON (UNC Greensboro), Mr. Donal Howley (UNC Greensboro), Mr. Yanhua Shen (UNC Greensboro), Prof. Judy Fowler (UNC Greensboro)

Recent years have witnessed growing academic attention on Social and Emotional Learning (SEL) among practitioners and policymakers in education (Dyson et al., 2019; Taylor et al., 2017). The purpose of this study was to explore teacher educators' views of Social and Emotional Learning (SEL) strategies in Physical Education (PE) from an international perspective. Eighteen teacher educators participated in this study from ten different countries (Australia, Brazil, Cyprus, China, Finland, Germany, Ireland, New Zealand, South Korea, USA). Using a qualitative case design (Merriam, 2015; Stake, 2005), data were collected through in-depth interviews with a video-conferencing system called 'Zoom'. The data were analyzed using a systematic process of qualitative data analysis by Miles, Huberman, & Saldana (2014) following transcription, organization of raw data, creation of descriptive codes followed by inferential coding. Trustworthiness of the study was enhanced by member checks, peer debriefing, and analyzing negative cases (Denzin & Lincoln, 2011; Miles, et al., 2014; Patton, 2014). The findings indicated that teacher educators emphasized the following SEL strategies for implementing PE classes: a) Proactive approaches based on humanistic pedagogies, b) Learner-centered approaches for student voice and choice, c) Creating safe and conducive learning environment, d) Being explicit with clear expectations, e) Using positive behavioral strategies, f) Demonstrating how SEL skills look like, g) Having a consistent conversation with students, h) Perspective-taking and empathy, i) Promoting experiences of problem-solving in groups, j) Adopting Models-based Practice (MBP), and k) Giving opportunities for reflection.

This study represents teacher educators' view of pedagogical approaches and teaching strategies that PE teachers can potentially use to promote SEL in their K-12 PE class. This research provides implications from an international faculty for SEL implementation in school PE programs and further adds to a growing body of evidence on SEL for PE teacher professional development.

The complexities of reflective embodied physical education teacher education

Dr. DR. ALISON MURRAY (University of Roehampton), Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University), Dr. JULIE PEARSON (St Mary's University, Twickenham, London), Dr. EMMA WHEWELL (University of Northampton), Dr. DR. GERALD GRIGGS (UCFB)

In England there have been 3 national pandemic lockdowns spanning 2020 and 2021. This has impacted on teacher education in an unprecedented way, with providers utilising face to face taught sessions when possible alongside virtual online learning. This paper considers the complexities of reflective embodied physical education within teacher education during this time. This paper draws across the experiences of members of the Physical Education Teacher Education Network and how complexity adaptive systems approaches can illuminate current and inform future embodied practice regardless of the learning medium.

Higher order thinking strategies of a practical (embodied) nature are evident across physical education teacher education practice (Murray, 2014) and are accessible across school phases as well as physical education teacher education (Murray and Napper-Owen, 2021). The paper explores the nuances of how pre-existing and emergent affordances translate to the virtual world, where ways in which teaching and learning translate, manifest and emerge despite current structure determined constraints policies and governance. A place where potential essences of embodied tacit approaches to thinking and learning, could be overlooked, this paper considers how the online medium can facilitate still be used to engage student teachers through reflective embodied physical education.

The paper offers a future practice of hope, whereby all stakeholders investing; develop collective holistic agency. It addresses current linear media driven misconceptions and recognises how educators moved from 'little grey boxes', to teaching through student-centred, sense making activities, developing digital fluency and collaborate activities. It explores how embodied reflections were undertaken via active blended learning, using a variety of planned and emergent affordances; photography, video, and apps to increase social connectedness as well as personal accountability of learning. These interactions developed, constructed, reflected on and critiqued knowledge, to ensure the next generation of physical education teachers have the awareness to extend confidence and competence.

The Model of Personal and Social Responsibility in Physical Education: A study on teacher training in Timor-Leste

Dr. Maria do Céu Baptista (National University of Timor Lorosa'e)

As Timor-Leste is still a developing country, the capacity of institutions responsible for teachers' initial and constant training to meet the urgent needs of the education system is considered insufficient. Therefore, further research is needed to help identify appropriate policy responses. Thus, the objective of this study was to develop a pedagogical intervention in teacher training based on the Personal and Social Responsibility Model (PSRM) for the teaching of Physical Education in East Timor. Two interventions were conducted: i) in teachers' training in the 1st and 2nd cycles of basic education, encompassing 95 students for three semesters of the course and also their follow-up as teachers. A translated version of the PSRQ, semi-structured interviews and an observation instrument (TARE 3.0) were used; ii) training of Physical Education (PE) teachers with an experimental group comprising 30 students and a control group with 29 for one semester. We used The PSRQ East Timor, an instrument translated, adapted and validated for this study. Results: intervention I has shown that students significantly increased ($p < .05$) their perception of Personal Responsibility (PR). Teachers with experience in PSRM evidenced significant differences in the "Assigning tasks" and "Promoting evaluation" strategies. I Intervention II depicted no significant improvements in the perception of inter and intragroup Personal Responsibility and Social Responsibility. We concluded that the PSRM has worked when applied to the Timorese reality in PE teaching throughout the course, inserted in an experiential learning during its formation, since it takes time to produce changes. New applications of PSRM are suggested in a continuous, long-term and experiential learning during teacher training so that it can be applied in public schools.

Transformative Pedagogy in Physical Education and Health - small steps to greater changes

Prof. Suzanne Lundvall (Gothenburg University), Mr. RASMUS KARLANDER (The Swedish School of Sport and Health Sciences, GIH), Mr. Mattias Svaerd (Järfälla Municipality)

Critique of how Physical Education and Outdoor Education is taught is common across countries in the world. This critique involves both social justice issues, subject matter content and learning activities. The aim of this case study has been to explore the use of transformative pedagogy as a basis for outdoor learning and aspects of health and wellbeing within PEH in Sweden. A place-responsive approach was added to the traditional teaching of outdoor learning including the content of orienteering. The pedagogical strategy involved student-centred tasks, both in relation to 'finding the way to certain places' (orienteering) and to, in a systematic way, explore how each place affected them in terms experiencing feelings of un-wellbeing or wellbeing with the help of using a Likert scale.

Two classes in school year eight, 40 students, aged 14-15 years old, participated. The school is part of a long-term collaboration project between PE-teachers and higher education (PETE educators and researchers). The empirical material consist of protocols with subjective quantitative measurements of places and notes, and focus groups interviews (before and after data collection).

The preliminary result point to that the student-centred transformative pedagogical strategy was noted and enjoyed by the students. The students described the working with the tasks, as 'they owned the task' and that this supported their engagement and attentiveness. A large group of students felt that they explored new orientations and meanings toward local places and outdoor visits. Furthermore, they enjoyed the asked for concrete reflections based on their experiences of places and wellbeing or not, where the protocols helped them to raise their awareness. A conclusion from this case study is that transformative pedagogy as a chosen perspective can enable authentic learning contexts where new aspects of both outdoor learning, health and sustainability can come in front.

Understanding Diversity, Differences and Social Justice in Physical Education: Enduring challenges and possible direction in a translocated world

Dr. BONNIE PANG (University of Bath), Prof. Tony Rossi (Western Sydney University)

This presentation focuses on a forthcoming book which explores trans-locality as a conceptual framework for thinking through diversity and equity in Physical Education Teacher Education (PETE) that Professor Tony Rossi and I embarked on in the past two years. The last decade of research that centers on the nexus of PETE, equity and diversity for the most part dealt with student diversity. Teacher diversity seems to have attracted much less attention. With increasing numbers of minority ethnic students in schools and university programs in westernized countries, there have been calls to more radically and with greater haste, diversify the teaching profession. Such a call is based on assumptions that teachers of minority ethnic backgrounds are likely to be better placed to teach minority ethnic students as a consequence of better understanding of their needs and cultural practices. In the presentation we first explore how diversity in the macrocosms of economy, polity, and power nationally and globally translate into dynamics of the microcosms of teaching and learning locally; and translate further into individual dispositions and social positions in everyday life. To understand the myriad of interactions and practice around diversity and inclusion among the research participants including academics (in Australia and the United Kingdom), and teachers and students (in Greater Western Sydney region in Australia), we explore the explanatory promise of the conceptual framework of trans-locality. In light of the little consideration of ethnically diverse PETE teachers, we provide insights into what this means for the PETE profession in relation to trans-localism and diversity and equity, bringing us back to the purpose of the book 'Understanding Diversity, Differences and Social Justice in Physical Education: *Enduring challenges and possible direction in a translocated world*'.

Using context personalization approach to promote students' long-term engagement towards physical activity : an exploratory study in physical education

Prof. DENIS PASCO (University of Bourgogne-Franche-Comté), Prof. CEDRIC ROURE (University of teacher education, teaching and research unit in physical education and sport)

Individual interest which refers to individual's personal preferences is a key in promoting students' long-term engagement towards physical activity. Capitalizing on the positive effects of individual interest on the regulation of person-in-context experiences, researchers have used teaching strategies based on a fit between the content taught and the learners' individual interests. One of the promising ways to facilitate this fit is the context personalization approach which refers to matching content with characters, objects, and themes of students' out-of-school interests. The goal of this exploratory study was to investigate the potential of this approach in physical education to promote students' long-term engagement towards physical activity. Participants were 184 secondary school students ($M_{\text{age}} = 13.9$; $SD = 1.7$; 54.9% boys) randomly separated in an experimental ($n=113$) or a control ($n=71$) group. All the students participated in a handball unit of six lessons (nine hours). Video games principles (e.g., characters and content to unlock, experience points to earn) related to students' out-of-school interest were used to design the unit for the experimental group. During the experimentation, students completed three scales developed in physical education : individual interest, situational interest and perceived competence. Results revealed higher scores for the experimental group compared to the control group in (1) triggering and maintaining situational interest, (2) individual interest at the end of the unit and, (3) perceived competence. These results are discussed in relation to the impact of a context personalization approach on students' interest in physical education. This exploratory study draws some opportunities for researchers and physical education teachers to tackle together the 21st century challenge of promoting students' long-term engagement towards physical activity through physical education.

Using participatory action research to collaborate for social and emotional learning in physical education

Dr. Kelsey Higginson (Minot State University), Dr. Sue Sutherland (The Ohio State University)

In response to local and national needs, the state of Ohio in the United States created social and emotional learning (SEL) standards that would apply to all subjects and grade levels. The new SEL standards were approved in the summer of 2019 and were to be enacted during the next school year. There was no direct training on how to implement these new standards in any subject and teachers were often left on their own. A participatory action research (PAR) project was created by a physical education teacher education (PETE) doctoral student and three elementary physical education teachers from one school district to work together. This group formed a community of practice with the purpose of better understanding how to include SEL in elementary physical education. The project included interviews at the start and conclusion of the project, a workshop to learn about SEL, journals kept by all members, observations of lessons, and group meeting audio recordings. For greater context, classroom teachers and principals in the three schools were also interviewed. All three physical education teachers found individual methods to include SEL standards during physical education lessons. Each of the three teachers also struggled with time constraints and lack of systemic support. Over the course of one year's interactions, trust was built between community members. This trust allowed the group to learn from one another and share ideas. The community members saw success and struggles as students gained SEL skills alongside physical skills. This project provides a view of how universities and local teachers can work together to address local issues. PAR can be a productive method to bridge the gap between researchers and practitioners, helping to improve the practice of physical education for all.

“What’s the Problem?” Exploring the potential for a problem-based learning approach to foster meaningfulness in post-primary Physical Education in Ireland

*Mr. Pat Gleeson (Physical Education and Sport Sciences, University of Limerick), Prof. Ann MacPhail (University of Limerick),
Mr. Tom Comyns (Physical Education and Sport Sciences, University of Limerick)*

The aim of this interpretive qualitative case study was to conduct exploratory and evaluative research around the potential of problem-based learning (PBL) to foster meaningfulness in post-primary Physical Education in Ireland, specifically aligned with the Health Related Physical Activity (HRPA) curriculum model of the Senior Cycle Physical Education (SCPE) framework.

The study was a 12-week, interpretive case study with two data collection points in one post-primary school in Ireland. Methods for data collection were focus group interviews, one-on-one interviews, a teacher-researcher journal and questionnaires. The data analysis involved a thematic analysis approach.

Implementation challenges arose such as adapting to changes in practise, insufficient class time allotment and a lack of supports for teachers. However, the learning experienced through a PBL approach in SCPE during this study was meaningful for students as it corresponded directly with students’ future lives outside of school. Simultaneously PBL facilitated students’ social and academic learning, promoted a more inclusive environment that was accessible to all students, and allowed for student ownership of their own learning. PBL was also effective in educating students to apply SCPE content to future problematic situations. Thus, PBL enabled opportunities for transformative learning to occur.

The findings of this study suggest that a PBL approach can be adapted to other subjects across post-primary senior cycle education. PBL can be effective in helping students to reach the learning outcomes of SCPE and to value their Physical Education experience. Provided the cost of implementation is not too great, this should be sufficient justification to offer PBL as part of the post-primary education experience for students within Physical Education lessons and in their broader senior cycle education as a whole. PBL as an ‘umbrella’ instructional strategy is therefore both timely and evolutionary.

June 9: Symposium

Co-developing critical Digital Health Pedagogies with Physical Education teachers.

Dr. MARIA JOSÉ CAMACHO-MIÑANO (University Complutense of Madrid), Prof. Emma Rich (University of Bath), Dr. DR. SHIRLEY GRAY (University of Edinburgh), Prof. KRISTIINA KUMPULAINEN (University of Helsinki), Dr. Antonio MATURO (University of Bologna), Dr. DR. SARAH MACISAAC (University of Edinburgh)

DigiHealthPE is a UNA Europe seed funding research project which involves six researchers from four European Countries (Finland, Italy, UK, Spain). This project aims to explore and pilot strategies co-created with PE teachers to promote a critical understanding and use of digital health technologies for healthy lifestyles among young people. This symposium will report on the preliminary work and findings of the project.

Previous research has shown how digital health technologies are ‘instructive’ in nature, playing a pedagogic role in how young people learn about their bodies and health (Rich, 2019). This learning that usually occurs beyond formal schooling raises important questions for physical education (PE) teachers. They are increasingly using digital technologies for teaching, although instrumental approaches prevail, ignoring important social, contextual and cultural factors that may impact upon the individuals’ health knowledge and behaviours. They also often neglect the human, embodied and (inter)active ways in which people learn, something that is at the heart of teaching and learning in PE. Therefore, our project aims to address this gap by working with pre-service and in-service PE teachers to co-develop and evaluate critical digital health pedagogies that will enable young people to engage with digital health technologies in critical, meaningful and embodied ways.

The symposium will start with a brief overview of the UNA Europe project including the research purposes and methods we aim to implement, as well as the nature of our collaborative work. This overview will be followed by three presentations from researching academics of the four partnership universities in the project. Each will be focused on different empirically and theoretically rich insights to co-develop critical digital health pedagogies with PE teachers. At the conclusion, we will present the future direction and intended goals of our project as we are moving towards a broader collaboration.

Honouring Indigenous Ways of Knowing Across Continents and Disciplines

Dr. Lee Schaefer (McGill University), Mr. DEREK WASYLIW (McGill University), Mrs. Hariata Tai Rakena (McGill University), Dr. Alex Mccomber (Mcgill), Ms. Lee Sheppard (The University of Queensland), Dr. :) lisahunter(they/them/their/it) (Monash University), Dr. ANDREW BENNIE (Western Sydney University)

This International, interdisciplinary symposium, made up of Indigenous and non-Indigenous scholars, will engage in complicated conversations around honouring Indigenous ways of knowing through physical education, health and wellbeing, sport and physical activity settings. Understanding Indigenous ways of knowing is a multifaceted undertaking given the diversity of Indigenous Peoples across the world. However, like Durie (2004), we argue that what binds the network of Indigenous Peoples the world over is the traditional understanding and connection people have with the land, waters, sky, and fauna associated with the territories they occupy as custodians. Indigenous and non-Indigenous scholars working in sport, physical education, health, wellbeing and physical activity across Canada, New Zealand and Australia will share their experiences with incorporating the Indigenous ways of knowing that are contextual to the places they reside, into their teaching, programming, and research. Each of these countries hold a colonial past and present, arguably never able to decolonise (Moreton-Robinson, 2011) and thus offer unique differences as well as comparative examples of post-colonial and decolonial efforts to honour Indigenous Peoples and their ways of knowing. While the areas of sport, physical education, health, wellbeing and physical activity promotion are distinct and often siloed into disciplinary boundaries, they are also similar in regard to physical expression of culture, movement, and the body. Presenters offer the distinct, plural and complex ways that Indigenous ways of knowing are conceptualized in these three countries, and also the affinities that exist across borderlands in attempting to incorporate Indigenous ways of knowing into sport, physical and health education and physical activity promotion.

New avenues for student educational development in Sport Education: A multidimensional analysis of equity, game-play, physical and psychological wellbeing and Preservice teachers' teaching

Dr. DR. Cláudio Farias (Faculty of Sport, University of Porto, Porto, Portugal), Ms. Yessica Segovia (Universidad de Castilla-La Mancha), Dr. David Gutierrez (Universidad de Castilla-La Mancha), Mr. Joaquim Teixeira (Faculty of Sport, University of Porto, Porto, Portugal), Mr. Eugénio Ribeiro (Faculty of Sport, University of Porto, Porto, Portugal), Mrs. Cristiana Bessa (Faculty of Sport, University of Porto, Porto, Portugal), Ms. Catarina Pinto (Faculty of Sport, University of Porto, Porto, Portugal), Prof. Isabel Mesquita (Faculty of Sport, University of Porto, Porto, Portugal)

The contemporary ongoing reconceptualization of the impact the physical education curriculum should have on children's multidimensional development of educational outcomes has 'spotlighted' Sport Education (SE) as a prominently implemented and researched pedagogical model. This symposium includes four studies aimed at presenting an integrated, cross-contextual, and state-of-the-art examination of multiple educational outcomes development in SE. The potential of SE to promote literacy and empathetic social skills is explored through the examination of the levels of equity in student participation in SE activities, regardless of their skill-level or sex ("*Is there equity of game-play participation in SE? Exploring the effects of students' sex and skill-level*"). Relative equitable participation (Total participation time, Intrateam participation and Intraclass participation) was found in SE game-play activities. Study 2 explores the effects of different participation contexts on students' game-play performance ("*Exploring students' game-play development in different learning contexts over a two-sports SE season*"). Overall, students' game-play scores (percentage of success, rate of play, efficiency index) were influenced by the nature of the different games and by the instruction system used to develop each sport, and by the context of participation in the activities (team practice vs. competition). A third presentation ("*Effects of a SE game-based high intensity interval training season on body composition and wellbeing*") fills in the marked gap of knowledge on the impact of SE on students' psychological well-being, body composition and level of physical activity. SE impacted positively on the decrease of the adolescent's body fat (particularly girls), and on psychological variables (particularly boys). In the fourth study, "*Examining preservice teachers' content knowledge and students' game-play in Physical Education Teacher Education*", there was found a progressive increase over time in preservice teachers' specialized content knowledge development. Such increase was in line with a progressive development of their students' game-play efficacy.

Threshold Concepts in Physical Education from Theory to Praxis

Dr. Fiona Chambers (University College Cork), Dr. DR. DAVID ALDOUS (Cardiff Metropolitan University), Dr. Anna Bryant (Cardiff Metropolitan University), Dr. Antonio Rodrigues (University of Lisbon), Dr. Joanne Moles (University of Limerick), Prof. MARC CLOES (University of Liège), Dr. Rosalie Coolkens (PXL University of Applied Sciences and Arts), Prof. Yoshinori Okade (Faculty of Sport Culture, Nippon Sport Science University), Dr. George Jennings (Cardiff Metropolitan University), Dr. Dean Dudley (Macquarie University), Dr. DR. SUE WHATMAN (Griffith University)

Background

In this symposium, we discuss how our development of Threshold Concepts (Meyer & Land, 2005; Land et al, 2005) for physical education may provide educators and learners with the possibilities to respond dynamically to the plethora of rapidly changing health, social and economic challenges facing global communities. We argue that such challenges, unprecedented in scale and impact, require physical educators to engage with higher order thinking so that they are able to respond imaginatively and creatively to emerging problems. Educators need to be able to both generate and practise conceptual languages that are transformative, interdisciplinary, troublesome, integrative and discursive in their nature.

Methodology

There were seven international writing pods who used design thinking to (a) interrogate liminality (transformative learning), and (b) put forward threshold concepts and associated curriculum pedagogies and assessment. Each focused on a particular movement genre: gymnastics, dance, parkour, Gaelic games, martial arts, outdoor education and netball. Data from writing pods were then analysed in a conceptual sandbox through dialogic and discourse analysis.

Results

This led to the crystallisation of four threshold concepts and pedagogical approaches to teach these in the PE classroom. Drawing upon Bernstein's concept of Languages of Description (Bernstein, 1999; 2000; Morais & Neves, 2001), we illustrate the characteristics of these four possible PE threshold concepts: Corporeal Reflexivity, Corporeal Aesthetics, Self-Actualisation through Human Movement and Eudaimonia through Human Movement. Each of these concepts is comprised of disciplinary languages that are recognised as being transformative, educative and interdisciplinary in their structure.

Conclusion and Implications

The symposium concludes by highlighting how the unique characteristics of these Threshold Concepts and their structures enables us to consider the future role of the cross-discipline of Physical Education in responding to a plethora of adjacent pandemics - in particular Covid-19 and physical inactivity.

June 10: Oral Live E

A Collaborative Video Annotation and Analytics Environment for Teacher Professional Development (CoVAAPD) in Physical Education

Dr. DR. LIT KHOON ZASON CHIAN (National Institute of Education, Nanyang Technological University), Ms. Joanna Phan (Ministry of Education), Dr. ELIZABETH KOH (National Institute of Education, Nanyang Technological University), Ms. CHRISTIN JONATHAN (National Institute of Education, Nanyang Technological University), Ms. SIU HUA TAY (Ministry of Education), Dr. DR. JENNIFER TAN (OCBC Bank), Ms. SHI HUI KOK (National Institute of Education, Nanyang Technological University)

CoVAAPD is a web-based tool that enables Physical Education (PE) teachers and their mentors to collaboratively view, annotate, and engage in rich reflective dialogue around design and enactment of PE lessons captured via in-situ lesson observation videos. A unique feature of the CoVAAPD is the time-point based annotations where users can add annotations at specific timepoints, share annotations with peers, review peer annotations, and view/receive mentor feedback. Powerful learning analytics modules (based on pre-specified pedagogical tags) are integrated to enable teachers and mentors to continuously monitor professional learning progress to enhance and augment face-to-face lesson observation feedback and practitioner reflection activities. Using design-based research with mixed methods, the current study aims to find out the extent in which a blended PD approach supported by CoVAAPD foster teachers' collaborative reflection around the effective design and enactment of PE lessons. Four schools (Primary – 3; Secondary – 1) and 31 teacher participants took part in the study. The reflection rubrics (Ward & McCotter, 2004) was adapted to assess the effectiveness of teachers' collaborative reflection. Three levels (technical, dialogic and transformation) showed positive and significance improvements ($p < .05$) between pre and post trials. In addition, quantitative survey responses (Likert scale 1 - 7) towards the usability and perceived usefulness of CoVAAPD were positive ($5.57 \leq M \leq 5.97$). Qualitative findings from teacher interviews illustrated that CoVAAPD was useful in obtaining and providing feedback, as well as refining practice. The teacher participants liked having the focused and specific discussions from the video annotations and pedagogical tags, which aligned with teacher actions in the Singapore Teaching Practice (Liu & Lim, 2018). Findings also revealed issues such as building a culture of openness toward feedback and relating to the learning analytics data.

An illustration of teaching for meaningfulness in an early childhood classroom

Mr. Adam Carter (Brock University), Mr. Zack Smith (KAUST School), Dr. DR. DÉIRDRE NÍ CHRÓINÍN (Mary Immaculate College), Dr. TIM FLETCHER (Brock University)

Recent interest in prioritizing meaningfulness in physical education is not matched by vivid descriptions or empirical evidence of how to teach for meaningfulness, particularly in early childhood settings. Adopting a single exploratory qualitative case study design, this paper shares how one teacher (Zack) prioritized meaningfulness in one unit of physical education with children aged 3-4years. Data sources included lesson plans (n=6), teacher reflections (n=8), teacher narrative (n=1), other sources where Zack described his approach including images, tweets, power points, timelines and photographs (n=95) and student interviews (n=4). Data were analysed inductively (Thomas, 2006). Zack's pedagogical approach indicated a range of strategies that facilitate teaching for meaningfulness in early childhood physical education. The driver of Zack's decision-making was personal relevance. Lessons began with goals being set and agreed upon with the children. Story-telling was then used as provocation for movement, which involved movement spaces being designed to match the story and facilitate student choices about their engagement. Within these spaces attention was given to individualisation of experience and differentiated challenge. Children reflected on their achievements at the end of each lesson. As the unit progressed, children were given increasing levels of choice, input, and responsibility. These findings illustrate what a pedagogy of meaningfulness might include in early childhood settings and provides important direction for future implementation. In particular, story-telling provides a frame for teachers aiming to promote meaningful physical experiences for young children.

Castle's Competition Model in Action

Mr. NEIL CASTLE (Canterbury Christ Church University), Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University)

Introduction

Competition sits prominently within the English National Curriculum for Physical Education (PE) (DfE, 2013) yet there is little guidance for teachers in how competition should be delivered for elementary (primary) aged children. Additionally, much of the current research focusses on competitive sport that takes place outside of curriculum time and considers the attitudes of older children (secondary / high school children), highlighting the need to focus more on PE lessons and younger pupils.

Methods

Castle's Competition Model for Effective Learning in Competition (MELC), (developed in Howells et al. 2018) explored the relationship between the level of challenge within an activity and the level of success achieved. Suggesting that there is a 'Competition Learning Zone' (CLZ) when these two are in equity. This paper investigates the application of the MELC and CLZ to develop competence, confidence and enjoyment with two different age phases of the English PE curriculum (7 and 10 years), within the three different types of competition (against, alongside and with others).

Results

The findings found that a higher percentage of children improved in their confidence levels and competence when competitive targets were introduced, regardless of age or gender. Additionally, when competition was absent children's scores regressed at a higher rate. Children responded far more positively in terms of enjoyment when targets were low or mid-level whereas high targets had less impact on improvement, however, they did lower confidence, particularly amongst girls. The children expressed a preference for competing *against* others, yet they produced their best results when competing *alongside* others, which was the format of competition that they enjoyed the *least*. It is proposed that caution is needed when applying competition within PE lessons, and the authors suggest a variety of different types of competition to continue to enhance enjoyment, confidence and competent levels with all children.

Co-development of the national monitoring system for physical activity and motor skills for 4–6-year-old children in Finland

Mrs. ANETTE MEHTÄLÄ (LIKES Research Centre for Physical Activity and Health, Jyväskylä), Dr. DR. ARJA SÄÄKSLAHTI (University of Jyväskylä, Jyväskylä), Dr. DR. TUIJA TAMMELIN (LIKES Research Centre for Physical Activity and Health, Jyväskylä)

This presentation describes the feasibility results of the JOYPAM project for monitoring the joy of motion, physical activity, and motor skills in four- to six-year-old children. The aim of the project set by the Ministry of Education and Culture was to co-create, test, and make recommendations for a national monitoring system in Finland.

The various measures were compared in the laboratory, early childhood education and care (ECEC), and at home during Phase 1 (2019). Also, children wore accelerometers for one week to provide information on the feasibility of accelerometer placement solutions. Based on Phase 1 results and given feedback from participants, a decision was made to use certain measures in Phase 2 (2020–2021). In addition, the motor skills test battery was developed and piloted. Three ways of recruiting children and their families to the study were tested. Multi-level evaluation and feedback systems for participants and actors were considered and developed during the project.

In Phase 2, children's physical activity and sleep have been measured by the wrist-mounted accelerometer, which was also the most liked among children (n=19, 78% was happy to wear). The motor skills test battery also proved to be applicable in small ECEC units without a gym. Immediately after the motor skills measurements, 93% of children said they were very happy or rather happy (n=388). Inviting children and their families to participate in the study via ECEC was indicated to be the most practical way. Feedback for early childhood educators serves as a physical activity promotion tool in ECEC units.

When planning a population-level monitoring system, resources should also be directed to the planning of the content of the feedback. This kind of feedback tool supports early education teachers targeting activities based on children's needs. In research impacting children's lives, their voices should be heard.

Curriculum change and teacher education; Exploring the relationship between school based curriculum change and initial teacher education

Ms. Claire Walsh (University of Limerick), Prof. Ann MacPhail (University of Limerick), Prof. DEBORAH TANNEHILL (Physical Education and Sport Sciences, University of Limerick)

Ireland is stepping away from a prescriptive subject curriculum and teacher centred approach towards a more learner-focused approach with the introduction of the new Junior Cycle Framework (Department of Education and Skills (DES), 2015). Introduced, alongside the Framework, is a new area of learning identified as 'Wellbeing'. Physical education is one of the subjects that forms the Wellbeing curriculum. As educational policy moves from a prescriptive curriculum model to one that draws on professional capacity to translate and adapt the curricula, it is crucial that policy intentions, aims and values are not lost in the process (MacLean *et al* 2015). Curriculum change requires effort from the individual teacher in addition to efforts at the school, system and professional teaching levels (Lynch 2014). It is against this backdrop that this study examines how the introduction of a new second level curriculum influences an initial teacher education (ITE) programme?

Fourteen teacher educators involved in the delivery of a Physical Education Teacher Education programme were purposively sampled and interviewed in a semi-structured manner (Bryman 2012). Data analysis occurred using both inductive and deductive methods (Charmaz 2014). Findings explore (i) the process of enacting Wellbeing, (ii) teacher educators as policy actors and (iii) teaching philosophy and how it impacts decisions made about teaching and learning.

Results of this study intend to inform the understanding of change processes within initial teacher education programmes. The process of change has received relatively little theoretical or empirical study in the field of teacher education (Peck *et al* 2009). Fullan states that the uniqueness of the individual setting is a critical factor in any change process and that research should be used to help practitioners 'make sense' of each stage of the change process (Fullan 1999).

Early Years Professionals' perceptions of children's physicality

Mrs. ANTJE DRAGONI (Kingston University)

This research focused on physicality as the child's first language, the underpinning and interconnecting indispensable foundation for children's holistic learning and development, and responded to a shift away from physicality in Early Years (EY) as a result of a 'physicality deficit disorder'. Physical activity levels of children are at an alarming low level, with 91% of children in the UK not achieving their daily physical activity recommendations. The research explored Early Years Professionals' (EYPs) perceptions of children's physicality, in particular the implementation of physicality in practice, perceived barriers and its overall importance in relation to educational values in the qualification and curriculum landscape. Adopting an interpretivist paradigm with a qualitative approach led to employing an online open-ended questionnaire and a focus group. The findings identified that despite a wealth of theoretical knowledge and understanding of the importance of physicality, the educational purpose including the teaching and learning content of physicality is not promoted adequately in EY training. Furthermore, the research highlighted a lack of conscious focus on physicality in practice and in particular a contradiction between expectations of implementing physicality in practice despite EY training not including practical elements of physicality. The research recommends focusing on specific practical training as well as the establishment of a lead role for every EY setting to promote a greater focus on physicality. Furthermore, the research calls for a renewed focus on physicality to challenge the current disembodied and marginalised approach, by adopting a new conception of physicality as the fundamental foundation of the EY curriculum. Finally, the research calls to develop collaborative focus groups for improved practice and to advocate curriculum development that recognises and contextualises the importance of physicality. This research proposes that adequately skilled EYPs and an appropriate curriculum have the capacity to start the process of a paradigm shift.

Effects of a training course on creating an empowering motivational climate in physical education

*Prof. STÉPHANIE GIRARD (Université du Québec à Trois-Rivières), Prof. Jean-François Desbiens (Université de Sherbrooke),
Ms. ANNE-MARIE HOGUE (Université de Sherbrooke)*

Professional development represents an opportunity to exchange on teachers practices with colleagues, become familiar with the latest research on effective strategies, develop new skills and support transfer into practice. This study aims to determine if participation in a 2-day training course on how to create an empowering motivational climate in physical education (PE) impacted 1) students' self-determined motivation, basic psychological needs satisfaction, perception of motivational climate, effort in PE and intention to be physically active, 2) observed motivational climate and 3) teachers' beliefs about motivational strategies. A total of 11 PE teachers (experimental group = 6; control group = 5) and their students (elementary = 107; secondary = 100) were recruited. Students and teachers completed questionnaires twice: once before the training and once after it was over. Teachers were filmed during two lessons: once before the start of training and once between the second and the last day of training, during a motivational strategy experiment planned by PE teachers on the second day of training. Data was analysed with non-parametric tests. Two experts coded the videos. Results indicate that the teachers' training had no significant positive effect on students' motivation. However, scores were already quite high at the start of the year and were similar for the two groups. Between both measurement points, the control group's amotivation increased and autonomy satisfaction decreased. This was not the case for students in the experimental group. PE teachers in the experimental group were more empowering during the integration phase of the lesson. Gaps and the overall rating of the lesson (motivational climate) were both more empowering in the experimental group, but did not reach statistical significance ($p = .066$), which is promising for future interventions. Finally, positive and significant changes in teachers' beliefs about motivational strategies were observed only in the experimental group.

Embracing the roles of physical education teacher educator and academic leader: Lessons learned from a collaborative self-study

Dr. DR. KEVIN PATTON (California State University - Chico), Dr. Maura Coulter (Dublin City University), Dr. DR. CHRIS NORTH (University of Canterbury)

Background

Leaders in higher education face dynamic, complex, and challenging demands. Teacher education administrative leaders, similar to their counterparts in other disciplines, receive little formal preparation, and in assuming administrative roles, often experience a crisis of professional identity (Allison & Ramirez, 2019).

Purpose

We used S-STEP (self-study of teacher educator practice) to examine our growth as leaders and responses to the challenges of the transitional period into leadership roles. The trials, issues and concerns, and the impact of critical events on our professional learning and identities were explored.

Methods

We are three physical education teacher educators, across different continents, who took on various academic leadership roles. To better understand our growth as leaders, we used S-STEP, which is improvement-aimed, interactive, and includes multiple, mainly qualitative methods to collect data (LaBoskey, 2004). Data sources included recorded Skype conversations and reflective journal entries over a 2-year period, and comprised relatively open discussions. Data from the conversations and reflections were inductively and deductively coded.

Results

Our transition to leadership has been largely satisfying, yet often tumultuous. Themes reflect several lessons learned, emphasizing the importance of: 1) exercising principled prioritization, 2) seeking connections to build strategic relationships, 3) making onerous decisions often requires engaging in difficult conversations, 4) making the appropriate argument (i.e., don't bring a knife to a gunfight), and 5) completing managerial duties frequently conflicts with quality teaching and effective leadership.

Conclusions

Engaging in self-study and reflecting with trusted friends alleviated uncertainties in our new roles and was the catalyst through which we saw change in our practices as leaders. Collective S-STEP across different leadership roles and continents was critical to understanding ourselves, the challenges experienced, and our identity development (North, Coulter, & Patton, 2020). Differences in our geographic locations, institutions, and teacher education careers enriched our understandings of our evolving roles.

First 10 years of life. An international comparison and analysis of policy and practice of children's sport and physical activity in UK and Ireland.

Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University), Dr. DR. TARA COPPINGER (Munster Technological University)

Building on the authors' previous international comparisons (UK and Ireland) of children's and teachers' perspectives, the objective of this project was to compare and analyse the policy, practice and current physical activity (PA) and sport of children aged <10 years from 1999 – 2019 in the UK and Ireland. The similarities and differences in sport and PA in both countries, were considered, and the contribution of educational settings to these fields in children <10 years. The influence of fundamental movement skills (FMS), active miles initiatives, the use of competition and the impact of families and peers were also considered.

Results identified multiple documented benefits that PA has on health outcomes and the fact that physically active children are more likely to both participate in organised sport and remain active into adulthood. The results also highlighted that PA levels continue to remain low in both UK and Irish children in their first 10 years of life, which impacts on their FMS proficiency and their chance of succeeding in sport as they age. Active transport has the potential to support families, children and peers to be physically active, yet our results highlighted that 14% of children were not be allowed by their parents to actively commute to/from school in Ireland and numbers are continuing to decrease year on year within the UK with only 46% currently actively commuting. Schools provide an accessible platform to intervene. By providing specific training both within initial training (teacher training) and via continuous professional development, children could be supported by their teachers in progressing isolated skills into complex skills that will encourage PA and sport participation as they age. Furthermore, if infrastructure is developed to allow for safer active commuting streets, children and their families will be able to embed PA into their daily lives more easily.

Getting closer to nature: a contemporary issue for physical education

Ms. LÉA GOTTMANN (Rennes)

Environmental education issues are important today and need to be integrated in physical education practices. Despite the alarming consequences of climate change, the difficulties in profoundly changing our lifestyles and behaviors persist. This is due to the predominance of anthropocentric conceptions of nature, *i.e.*, the latter is only considered through its usefulness for human needs (Kopnina, 2015). To transform these perceptions of the environment, experiencing wilderness learning environments (Jose, Patrick and Moseley, 2017) allows for the development of emotions, sensations and knowledge as well as moving away from an anthropocentric position. The objective of our study is to analyze students' experience (emotions, sensations, knowledge) during a unit of ten physical education lessons in nature (orienteering race, mountain biking and protection of a marine area). 16 students participated in the study, all of whom were 12 years old. Three types of data were collected: a) measure of students' conception of the environment through questionnaires; b) audio-video recordings of lessons in nature by embedded cameras; c) students' verbalization during their practice regarding their emotions, sensations, and knowledge.

Three groups of students have been identified based on their conception of the environment. For all participants, emotions, sensations, and knowledge were transformed throughout the unit of 10 lessons. Results are discussed around the necessity to change the paradigm of environmental education, thinking learning as an ecocentric conception of nature, *i.e.*, humans are part of the natural environment.

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How are educational purposes and physical education contents linked in the enacted curriculum?

Dr. David Bezeau (Université de Sherbrooke), Dr. mathilde musard (Université de franche-comté)

Introduction: In France as in several countries (Bezeau, Musard & Deriaz, in press), the recent official curriculum defines a common program that is upstream of the disciplinary programs. Each discipline, as physical education (PE), must contribute to these common educational purposes. This type of reform has a strong impact on disciplinary teaching (Hasni, 2015). We study the enacted curriculum (Amade-Escot & Brière-Guenoun, 2014; Musard, 2018), particularly the relations between the educational purposes (why?), the PE content knowledge (what?) and the learning settings (how?). How PE teachers design and implement teaching and learning settings so that they contribute to the educational purposes of the common program? How are the contents structured, shaped and co-constructed during the interactions between the teacher and the students? **Methodology:** two 8-lesson of climbing and acrobatics PE sequences taught by two experienced PE teachers were recorded. These video data were supplemented by documentary data (planned sequence) and semi-structured *ante* and *post* sequence/lesson interviews. The data were analyzed from descriptors of the Joint Action framework in Didactics (Amade-Escot & Venturini, 2015) with a centration on the contents supposed to contribute to the educational purposes. **Results:** the two PE teachers identify such contents related to the social role of judge, who assesses their peers in climbing and acrobatics. The analysis of significant moments shows how different elements of the didactic milieu (learning environment) influence the appropriation of these contents (eg: organization of the students' groups, use of tablets, observation criteria, teacher regulations). In addition, the PE teachers, by refocusing on motor contents, tend to leave the contents about the role of judge. **Conclusions:** PE, through social roles (eg: judge, referee, coach) can contribute to educational purposes. Collaborative research could build and implement teaching sequences promoting the interrelation between disciplinary content and educational purposes.

Integrating Flipped Learning into an Early Field Experience Course: Pilot Study Results from Physical Education Teacher Education

Dr. DR. CHAD KILLIAN (Georgia State University), Mr. CHRISTOPHER J. KINDER (University of Illinois)

Background: Early field experiences (EFE) represent essential components of pre-service physical education teacher development, however curricula in the United States are crowded with general education requirements and state mandated teacher training courses. In addition, there is pressure to reduce time to degree at many institutions. As a result, it will become increasingly important to explore innovative pedagogies to ensure quality EFE are preserved and enhanced. The Flipped Learning Approach (FLA) exemplifies one possibility. The FLA uses online instruction to deliver key content prior to class in preparation for active learning opportunities during face-to-face meetings. In theory, the online component of the FLA should allow EFE to be preserved or increased without sacrificing content. Given the relative novelty of the FLA within PETE, it is essential to understand the advantages and disadvantages of using this approach. **Purpose:** The purpose of this study was (1) to explore the potential of FLA to increase field time within an elementary curriculum and instruction course and (2) examine student perceptions of and experiences in learning through the FLA in the course. **Method:** Individual interviews ($n=12$) were conducted with pre-service teachers. Themes were generated utilizing inductive and deductive techniques with constant comparative analysis guided by the Unified Theory of Acceptance and use of Technology (Venkatesh, et al., 2003). **Results:** Implementing FLA resulted in five additional school visits totaling 7.5 hours more hours spent on site compared to previous semesters. Three themes were also developed related to students' experiences: *Digital Modalities Valued Over Text and Lecture; Technology Use and Experience was an Asset;* and *Features of the FLA Implementation Were Supportive.* **Conclusion:** Embedding FLA into a EFE significantly increased field time and generally enhanced the learning experience for most PETE students. Extended exploration is warranted to further understand the utility of FLA in PETE.

K-12 Physical Education Participation and its Impact on Student Anxiety, Depression, and/or Stress: A Scoping Review

Ms. KACIE LANIER (Georgia State University), Dr. DR. CHAD KILLIAN (Georgia State University), Dr. Kathryn Wilson (Georgia State University), Dr. Rebecca Ellis (Georgia State University)

Background: Mental health problems are a growing concern in children and adolescents. Research has demonstrated that physical activity (PA) is effective at reducing feelings of anxiety, depression, and stress in adults and youth. Physical education (PE) provides students with opportunities to accumulate PA throughout the day and represents an ideal environment to support students' mental health through PA. However, while PA has been shown to improve mental health in clinical research settings, it is currently unknown the extent to which PA within the PE environment might influence students' anxiety, depression, and stress. **Objective:** The purpose of this scoping review was to examine research related to the impact of PE participation on students' anxiety, depression, and stress levels. **Design:** This review followed the PRISMA-ScR guidelines and a total of 4 databases were searched for peer-reviewed, English-language research articles. **Results:** Thirty-seven articles met the inclusion criteria. Nineteen articles examined PE students' anxiety levels, 4 examined depression, 7 examined stress, 4 examined both depression and stress, and 3 studies examined anxiety, depression, and stress levels. The included articles used a variety of methods, designs, and measurement tools to study students' feelings of anxiety, depression, and stress related to participation in PE. A caring PE environment and positive motivational profiles decreased feelings of anxiety, depression, and stress. Fitness testing, fitness-related activities, and body image perceptions increased these feelings while yoga had an inconsistent impact. **Conclusion:** This review demonstrated that participation in PE had a variable impact on students' anxiety, depression, and stress levels. Further research that takes into account environmental factors of the school, social influences, and the quality of PE programs is needed in order to establish a more reliable understanding of the relationship and potential impact of PE and students' mental health.

Physical literacy education for early childhood educators: Lessons learned from the Movement for Life! project

Dr. DR. NATHAN HALL (brock), Dr. Melanie Gregg (University of Winnipeg)

The purpose of this research was to examine how the Movement for Life! program (a physical literacy education program for early childhood caregivers) influenced the practices and behaviours of early childhood educators and the care centres they worked for.

Physical activity patterns established between birth and 6 years of age are an indicator of levels of physical activity for the years to follow. Therefore, it is important that adult caregivers understand the significance of developing physical literacy in the early years if they are to effectively assist young children in developing a love of being physically active. Yet, due in part to a focus on language, numeracy, social, and emotional skills development in early childcare settings, other areas of early childhood development, such as physical literacy, are often underemphasized. For the children in their care, early childhood educators, serve as role models and along with parents are the gatekeepers to providing early childhood physical literacy development. Thus, one way physical literacy development could be enhanced during early childhood could be through physical literacy education provided to early childhood educators.

Pre-post questionnaires were completed by 109 early childhood educators and childcare centre directors that participated in the eight-week Movement for Life! physical literacy education program. The findings indicated that providing early childhood caregivers education and training related to physical literacy development leads to them being more willing to provide opportunities for physical development, and more confident in their ability to offer physical activities that develop children's motivation, confidence, competence, knowledge and understanding related to engagement in physical activities. Recommendations from delivery of the education program along with considerations of existing literature for best practices will be highlighted.

Preschool Teachers Content Development in Physical Education

Prof. Niki Tsangaridou (University of Cyprus), Ms. Mikaela Pieroua (University of Cyprus), Dr. Ermis Kyriakides (University of Cyprus), Dr. Charalambos Charalambous (University of Cyprus)

In recent years, attention has been focused on dimensions of instructional quality. One critical element of this quality in early childhood physical education is teachers' ability to present content in a way that facilitates learning (Rink, 2014). The purpose of this study was to describe the development of the content in physical education in preschool. Eleven early childhood educators participated in the study. Data were collected using systematic observations. Specifically, a modified version of the Task Structure System (mTSS) was used. Three 40-minute observations for each teacher were conducted using the mTSS. Participants were handed informed-written-consent forms and appropriate human subject procedures were followed. Data were analyzed using within-case and cross-case analysis (Patton, 2002). In particular, data were first analyzed individually and then compared across participants. The analysis focused on key patterns, links, and themes that related to the content development of the lesson, the quality of student practice, the nature of task progression, and the duration of each task. Findings revealed that refining tasks were observed only in three of the thirty-three lessons observed and their whole duration was approximately eleven minutes. Cognitive and informing tasks were observed in every lesson and their duration varied. Extending tasks were observed in the majority of the lessons. Results also showed that only few educators used applying tasks that were irrelevant to the emphasized skill. Respectively, the participants used applying tasks in at least one of three lessons that were relevant to the emphasized skill. Implications of findings are discussed in light of teacher education programs.

Teacher educator's views on content knowledge and pedagogical content knowledge in ball games in Swedish Physical Education Teacher Education

Mr. Jan Mustell (Örebro University), Dr. Susanna Geidne (Örebro University), Dr. Dean Barker (Örebro University)

Physical education teacher education (PETE) should prepare pre-service teachers to be able to teach in line with curricular goals. Ball games is a part of PETE and 'practical' movement courses. Overcoming theory-practice divides has proven challenging in movement courses. In ball games courses pedagogical models are common but the time is limited for pre-service teachers to build content knowledge. Very little is known about how teacher educators understand ball games in relation to the goals of Physical education and health (PEH). The aim of this paper is to provide an understanding of how Swedish PETE prepares pre-service teachers to teach ball games in relation to the curricula goals of PEH. Shulman's concepts content knowledge (CK) and pedagogical content knowledge (PCK) were used as theoretical framework. The specific question was how teacher educators conceptualize CK and PCK in relation to ball games teaching?

Semi-structured interviews were conducted with two teacher educators from three different PETE-institutions. The interviews focused on the teacher educators' views on ball games in PEH and how to prepare pre-service teachers in PETE in ball games courses. Written course documents were also analyzed.

Early results show that CK by teacher educators was conceptualized as: (1) understanding of the character of ball games; (2) understanding the basic tactical ideas of invasion games and net-/wall games which includes an ability to play; (3) basic movement techniques in a few sports. PCK was conceptualized as: (1) ability to adapt and modify content to all learners; (2) ability to get students to handle the battle between teams and understand students' different preconditions; (3) ability to relate ball games to different curricular goals and communicate these with the students. Although the main focus in the courses was on PCK all teacher educators acknowledged the value of CK for developing PCK.

Teachers and students as policy actors in policy enactment: The interpretation, translation, and enactment of ‘integrated learning experiences’

Mr. DYLAN SCANLON (UL), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderón (University of Limerick)

Leaving Certificate Physical Education (LCPE), a certificate examination subject in a high-stakes environment in the final two-years of post-primary schooling, has two explicit bodies of knowledge, i.e., theoretical and practical knowledge. The curriculum encourages integration (i.e., the blend of theoretical and practical knowledge) through ‘integrated learning experiences’. This study explores how teachers interpret, translate and enact curriculum policy, particularly the notion of ‘integrated learning experiences’, and how students respond to ‘integrated learning experiences’.

A case study design was used which involved two teachers and 12 students in their respective schools. The teachers were interviewed on the realities of enacting ‘integrated learning experiences’ 19 times throughout the first year of teaching LCPE. The students were interviewed on their response to such experiences in focus groups four times throughout the year.

Figurational sociology was used to locate the teachers and students in a web of interdependent relationships and conceptualise them as ‘policy actors’. While the teachers and students held different policy actors positions, these positions were encouraged or challenged by the different relationships within their network of interdependent relationships, particularly the interdependent relationship between teacher and student. For example, one teacher’s ‘receiver’ position (i.e., policy work involving coping, defending and dependency) was challenged by the students’ ‘critics’ position (i.e., policy work involving maintaining counter-discourses), and resulted in the teacher occupying an ‘entrepreneur’ position (i.e., policy work involving investment, creativity and satisfaction) (Ball et al., 2011).

This study sheds light on how teachers and students ‘do’ policy work which we explicitly argue is influenced by the multiple interdependent relationships within and alongside their figurations (i.e., network of interdependent relationships) in the multi-layered policy enactment context.

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Teaching dance and creativity in PETE

Mr. Christopher Engdahl (The Swedish School of Sports and Health Sciences)

There is a global consensus that fostering of children's creativity in education is crucial. Addressing creativity has become an imperative in educational policies and in school curricula internationally. School-based physical education (PE), and specifically the teaching area of dance, has been identified as one important pedagogical setting within which to develop creativity. Several studies have suggested however, that dance is seldom taught in PE and physical education teacher education (PETE) in ways that acknowledge creativity.

At present, we know little about whether PETE teacher educators acknowledge questions of creativity in their teaching.

Accordingly, the aim has been to generate knowledge of whether and how creativity is considered in PETE, with focus on dance teaching. This aim is achieved by studying how PETE teacher educators consider creativity in dance teaching. Data were collected through a qualitative interview study with PETE educators (n=8) from each of the PETE institutions in Sweden. The researcher used the theoretical concepts of experimentation and smooth and striated spaces by Gilles Deleuze (Deleuze, 1994; Deleuze and Guattari, 1987) to guide the analysis of the data. According to the preliminary findings: 1) The teacher educators place great value on aspects of experimentation in their teaching of dance. 2) The abilities that students develop are not predetermined but created during the students' learning processes. 3) Teaching methods characterised by acceptance, openness and playfulness help smoothen the striated spaces of teaching and support teaching creativity in dance. The empirical material also shows challenges with addressing creativity in teaching, such as teacher educators' lack of time for teaching dance. This paper unravels benefits and challenges of addressing creativity in dance teaching in PETE.

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The association between physical activity, motor skills and school readiness: a conceptual model based on primary data.

Dr. DR. DAN JONES (Teesside University), Dr. DR. LIANE AZEVEDO (University of Huddersfield), Dr. DR. ALISON INNERD (Teesside University), Dr. DR. EMMA GILES (Teesside University)

Background: The benefits of being physically active, possessing good motor skills, and being school ready are well documented in early years. Nevertheless, evidence suggests that the majority of early years children do not engage in sufficient amounts of physical activity, have low motor skill competence, and 30% of children in England, do not achieve school readiness. Reception is a key stage in the development of health and educational behaviours. However, limited research has been conducted on the correlates of school readiness, as measured by the English government tool: Early Years Foundation Stage (EYFS) profile. This tool assesses multiple domains of childhood development.

Methods: An observational study was conducted collecting data on 326 Reception children's physical activity (ActiGraph GT1M accelerometers), motor skills (MABC-2 and the locomotor section of the TGMD-2) and school readiness levels (EYFS profile).

Findings: This study found that on average children were sufficiently physically active according to the UK physical activity guidelines, and engaged in less sedentary behaviour than previously documented. Motor skills scores were in line with previous research on early years motor skills. A higher percentage of children in the sample (80%) achieved school readiness than the average for England. Regression analyses found that motor skills and sedentary behaviour were significantly predictive of school readiness, whereas physical activity was not. These findings were combined with existing evidence to propose a conceptual model for the association between physical activity, sedentary behaviour, motor skills and school readiness.

Conclusion: This study provides valuable evidence for strategies to improve early years development and future outcomes. The promotion of motor skills in parallel with developmentally positive sedentary behaviours, whilst maintaining sufficient physical activity, in early years, may help to increase the number of children achieving school readiness, and may lead to long term benefits in educational, social, and physical development.

The missing 'link': the importance of Pedagogical Content Knowledge on trainee teacher's confidence and competence to teach Primary Physical Education

Ms. ANNETTE MCLACHLAN (University of Brighton)

A literature review that will critically discuss the development of Pedagogical Content Knowledge (PCK) as an integral knowledge base for effective teaching within primary Physical Education (PE). It will draw upon literature from PE research as well as other subject areas within education where research in PCK has been more prevalent (Gess-Newsome 2015; Kind & Chan, 2019). It will demonstrate how PCK might impact upon trainee teacher's confidence and competence to teach primary Physical Education (PE) and its impact on learning outcomes for pupils. In addition, it will also highlight how PCK might be recorded and improved for trainee teachers in Primary PE.

Acquiring in depth PCK can have a positive impact on student learning and as a result should be at the heart of teacher education and professional development (Kind & Chan, 2019). It is understood that there are number of barriers inhibiting trainee teachers from developing in-depth PCK during their Physical Education Teacher Education (e.g. limited time for PE on Primary initial teacher education and a lack of opportunity to deliver PE while on school-based placement) (Ward et al.2016). This literature review will show the key role PCK plays in enhancing teaching and learning and the positive impact it has on teachers' confidence and competence to teach (Yun-Soo, 2016). It will explore the different models that have been produced to help clarify the conceptualisation of PCK (Gess-Newsome, 2015; Kind & Chan, 2019; Yun-Soo, 2016; Kim 2020). In addition, this literature review will also shed light on effective methods for measuring PCK according to recent studies within PE (Yun-Soo, 2016; Stender et al. 2017; Iserbyt et al. 2017; Kim, 2020). Incorporating such practices into PETE programmes will help to maximise opportunities for developing trainee teachers PCK that will ultimately improve their quality of teaching and learning effectiveness (Kim, 2020).

The use of digital media in primary school PE – student perspectives on product-oriented ways of lesson staging

Dr. DR. STEFFEN GREVE (Leuphana University Lüneburg), Ms. MAREIKE THUMEL (Friedrich-Alexander-University of Erlangen-Nürnberg), Mr. FLORIAN JASTROW (Leuphana University Lüneburg), Ms. Anja Schwedler-Diesener (Leuphana University Lüneburg), Prof. CLAUDIUS KRIEGER (Universität Hamburg), Prof. JESSICA SÜSSENBACH (Leuphana University Lüneburg)

There is a controversial debate about the use of digital media in PE. There are various research results, which mostly do not relate to primary school. There are no known studies showing how media educational goals can be integrated into PE. Therefore we designed and evaluated teaching units for these. This occurred with regard to the research question of how students in elementary school interpret and experience the use of digital media in PE when media educational goals and objectives of PE are addressed equally. This raises the question which opportunities and limitations for educational processes can be reconstructed.

Method: Tablets were used in four primary school PE classes over the period of one school year. The teaching units were evaluated afterwards based on the research approach of focusing on the perspectives of the students involved. For this, we conducted 39 guided interviews with the students. The data was analyzed using the grounded theory methodology (Corbin & Strauss, 2008).

Findings: We developed a category system that describes phenomena of an extended range of access to the experience of physical activity in PE (Greve et al., 2020). The results show that the children's main focus is on their experience of movement. Besides the function of learning with media, the use of digital media in PE also means that students learn something about media, for example when the use of media generates personal data that the students work with.

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Transgression, Diversity & Inclusion in the Outdoors

Mr. GREG SPENCER (Independent)

Are our modern, professional approaches to providing coaching environments for people actually sustaining the very problems we seek to address? Do our approaches to diversity and inclusion scream “we’re listening... so long as you’re willing to be more like us?” This presentations does not strive to give answers, but it does try to open up some of the messiness. It’s also an invitation to dig into whether some of the rebellious spirit that’s been part and parcel of so much in the outdoors for so long might actually give us a basis for taking our pastimes forward from where they are right now.

June 10: Oral Live F

Addressing the assessment theory-practice gap as a learning community

*Mr. André Moura (University of Porto), Prof. Ann MacPhail (University of Limerick), Dr. Amândio Graça (University of Porto),
Dr. Paula Batista (University of Porto)*

Preservice teachers (PSTs) on physical education teacher education (PETE) programmes have been exposed to many years of school (assessment) practices. This ‘apprenticeship of observation’ (Lortie, 1975) leads PSTs to internalise conceptions that tend to differ from those advocated on PETE programmes. Literature continues to report the challenges faced by PETE programmes to change PSTs’ assessment dispositions (Brevik, Blikstad-Balas, & Engelién, 2017) and to prevent PSTs from reproducing previously ineffective practices they experienced as school students (Starck, Richards, & O’Neil, 2018). This study explores how a learning community can support physical education PSTs to not replicate their ineffective assessment experiences as students when teaching during school placement. The study used critical participatory action-research (Kemmis, McTaggart, & Nixon, 2014) over a six-month period. The learning community included one researcher, one teacher educator, three cooperating teachers, and eight PSTs. The researcher and teacher educator were facilitators, with cooperating teachers and PSTs scaffolding their own learning. Both cooperating teachers and PSTs were chosen due to their interest, profile, and commitment to determining effective assessment practices. Data were collected through individual and focus group interviews, post seminar reflections, researcher’s field notes, and PSTs’ school placement reports. Initial results convey that being involved in a learning community helped to refine understanding of assessment across all participants, and specifically assisted PSTs to be more critical, engaged and reflective with respect to their previous and new experiences of assessment practices.

An Actor-oriented Perspective of Implementing Meaningful PE in a Cycling Unit

*Mr. Andrew Vasily (KAUST School), Dr. TIM FLETCHER (Brock University), Dr. Douglas Gleddie (University of Alberta),
Dr. DR. DÉIRDRE NÍ CHRÓINÍN (Mary Immaculate College)*

The purpose of this research was to use an actor-oriented perspective to analyze one teacher's implementation of the Meaningful PE approach in a Grade 5 classroom in Saudi Arabia. One of the key challenges for developers of innovative approaches, such as Meaningful PE, is to support navigating the transition from idea to implementation. This transition provides an opportunity where insights and ideas can be implemented, tested, and refined based on students' and teachers' experiences. However, initial implementation often shows gaps between how innovation designers intend for teachers to use materials to plan and lead instruction, and what they end up doing (Penuel et al., 2014). Actor-oriented perspectives of implementation use ways that teachers make sense of and alter new approaches to inform refinement and future development. We seek to use insights from an actor-oriented perspective of implementing the Meaningful PE approach to gain a deeper understanding of how a teacher used their prior experiences, beliefs and knowledge (of curriculum, learning, students and social context) to interpret ideas proposed in Meaningful PE, and the reasons underpinning their pedagogical decisions. A single case study design was used, with the case defined as one teacher and his teaching of a cycling unit to one Grade 5 class. Data consisted of blog posts, tweets, and semi-structured interviews. The teacher identified several spheres of influence on implementation including personal philosophy, students, co-teachers, several organizational/environmental characteristics of the school, and important attributes of the innovation that supported implementation. Taking an actor-oriented perspective offered insight into the teacher's insider view of a pedagogical innovation, which enabled understanding of how they made sense of Meaningful PE and used those ideas to guide planning, instructional, and assessment decisions in the cycling unit.

An Online International Collaboration in Elementary Physical Education between the U.S. and Japan

Dr. DR. EDWARD OLSEN (Kean University), Mr. MASANOBU SATO (Bunkyo University), Dr. EMI TSUDA (West Virginia University), Dr. DR. JAMES WYANT (West Virginia University)

Background. Developing intercultural competence has become an important skill-set due to the globalization and diversification of communities worldwide. Physical education represents an ideal setting to teach and foster intercultural competence in children, and technology is a facilitator in developing this competency. Research is limited in developing intercultural competence through online collaboration in physical education.

Purpose. The purpose of this study was to examine in-service and pre-service teachers' experiences of facilitating an online international collaboration unit, called CULTURE (the Culture Unit of Learning to Understand, Respect, and Empathize) in elementary school physical education. Research questions accompanying this inquiry were: (a) What were the teachers' perceived learning experiences of children relative to intercultural competence in the unit?; (b) What were teachers' intercultural learning experiences in the unit?; and (c) What recommendations do teachers have for future design and implementation of the unit?

Methods. A narrative case study was used as the research design. The setting took place in one elementary school in the U.S., and two elementary schools in Japan. The participants ($N = 10$) consisted of pre-service ($n = 6$) and in-service ($n = 4$) teachers from both nations. Data were collected from face-to-face semi-structured interviews, exit slips, and videos. Data were analyzed inductively using the constant comparative method. Triangulation, member checking, and peer debriefing were used to confirm trustworthiness.

Results. Five themes were revealed from the data analyses: (a) Promoting cultural awareness and appreciation, (b) developing communication skills, (c) producing positive experiences for all, (d) project facilitators and barriers, and (e) applying to future professions.

Conclusion. Both pre-service and in-service teachers had a positive experience in implementing and teaching the unit—CULTURE. Developing intercultural competence is an iterative process that requires opportunities for continuous self-reflection and assessment. The unit, CULTURE could be viable approach to achieving this goal.

Assessment in physical education is a challenge, but why?

Dr. David Bezeau (Université de Sherbrooke)

Introduction: assessment is identified as a major challenge in PE (AIESEP, 2020; Annerstedt and Larsson, 2010; Dinan-Thompson and Penney, 2015). López-Pastor et al. (2013) identify the assessment as “one of the most fraught and troublesome issues physical educators have had to deal with over the past 40 years or so” (p. 57). PE teachers then come to assess for administrative reasons (Borghouts et al., 2016; Dinan Thompson and Penney, 2015; Mougnot, 2015), thus abandoning assessment for learning purposes, which is essential for quality PE (Leirhaug and Annerstedt, 2016). But what makes assessment a challenge in PE? The objective of this communication is to answer this question by describing the main issues encountered in PE with assessment. **Methodology:** exploratory sequential mixed methods were used (Creswell, 2009). Semi-structured individual interviews were first conducted with 13 PE teachers. Twelve of them were then paired in teams of two to participate in a ‘look-alike’ interview. This type of interview aims to describe the real activity of the assessment practices (Brau-Antony and Hubert, 2014). From these qualitative data, we developed a closed-response questionnaire to explore on a larger scale the main issues identified so far. This questionnaire will be distributed to more than 3,500 PE teachers in Quebec in March 2021. **Results:** the preliminary results identify five main issues: 1) the relevance of assessment in PE; 2) a subjective assessment due to a lack of clear guidelines; 3) a difficult interpretation (what is the value of what I observe from my students?); 4) poor understanding of assessment and 5) assessment in team sports (difficult to observe, especially due to the ephemeral nature of movement). The quantitative data from the questionnaire will reinforce some of these issues and highlight others that will be presented in this communication and supported by qualitative data.

Children's Perceived and Actual Physical Activity Levels within the Elementary School Setting.

Dr. DR. KRISTY HOWELLS (Canterbury Christ Church University), Dr. DR. TARA COPPINGER (Munster Technological University)

Abstract: To date, little research has longitudinally examined young children's physical activity (PA) during school hours, nor questioned children's perceptions of their own PA behaviors.

This study investigated 20 children's actual physical activity levels (APA) and their perceived physical activity levels (PPA) (10 infants, mean age 6.6 years; 10 juniors, mean age 9.5 years). APA was evaluated using accelerometers across 36 whole school days (371 minutes per day); 18 days included PE lessons and 18 did not, to consider the contribution of PE lessons to children's APA.

A repeated measures 3 factor ANOVA analyzed: type of day; age phase; parts of the day and gender. PPA was collected by an interactive handset [Qwizdom, 2009] and an adapted version of the PA questionnaire for children (PAQ-C) [Kowalski et al., 2004].

Findings revealed children undertook 10 more minutes of moderate to vigorous PA (MVPA) on PE days (53±19 minutes) compared to non-PE days (43±15 minutes) ($F=92.32$, $p<0.05$) and junior boys reached daily MVPA recommendations (WHO, 2020) (60±13 minutes) during school hours, but only on PE days. Juniors were found to over-estimate and infants, under-estimate, their APA levels.

If teachers were better supported in teaching and embedding different PA intensities within PE lessons and throughout the school day, children could understand better and reap the health benefits associated with varying the intensity of their PA both in and outside of school.

Design and Implementation of a Blended Professional Development on Models-Based Practice

Dr. DR. MAURO ANDRE (Leeds Beckett University), Dr. DR. CARLA VIDONI (University of Louisville), Dr. DR. HAYLEY FITZGERALD (Leeds Beckett University)

Physical Education (PE) models-based practice (MBP) have a consolidated history of academic research support, and yet MBP are still rare teaching practices. Lack of pre-service and in-service teacher training is set as one of the biggest challenges to close the gap between theory and MBP practice (Casey & MacPhail, 2018; Fyall & Metzler, 2019). The present study analyzed a new Blended (merging long-distance and face-to-face) Professional Development (PD) that was developed using O'Sullivan and Deglau (2006) Principles of Professional Development Design and Delivery as its theoretical framework. This study was conducted using a single case descriptive-qualitative case study design (Yin, 2003). The study described the triad interaction between the elementary PE teacher, the distant PD leader (MBP expert) and the local PD leader (elementary PE expert). The Blended PD was conducted before and during the MBP intervention, lasting a total of eight weeks. Data collection included field note observations and interviews. A systematic process of deductive analysis (Lincoln & Guba, 1985) was conducted to identify how the Blended PD was aligned with its theoretical framework. Findings reported three main themes: (1) empowering the teacher and promoting experiential learning, (2) meaningful learning in contextualized environments, and (3) ongoing support and balancing PD visions with teacher's goals. The new BPD was able to build a critical dialogue between the teacher and PD leaders, allowing the teacher to rely on his own expertise. Hence, following the same pedagogical principles of MBP, the BPD encouraged active and critical learning that empowered the teacher within his teaching practices. Future studies should consider how this BPD may be implemented with more teachers and different teaching contexts (different MBP) and age groups (elementary, middle and high school).

Learning in lockdown: Online professional development experiences of sport coaches in the UK and Ireland

Dr. DR. SIMON PHELAN (Oxford Brookes University), Dr. DR. ANNA STODTER (Anglia Ruskin University)

Within sport coaching there has been increased attention paid to the use of online collaborative learning tools (web 2.0 technologies) as education designers have sought to 'layer' face-to-face and virtual learning opportunities to support knowledge creation (Piggott, 2013). Recent restrictions around the COVID-19 pandemic have seen a meteoric rise in the provision of online professional development activities (CPD), hosted by an array of independent agencies, national governing bodies, and coaching 'gurus'. The aim of this study was to investigate the navigation of this changing landscape and explore how coaches exercised their autonomy through their engagement with, and filtering of, online CPD content.

An online survey sampled coaching practitioners (n=105) from the UK and Ireland across a range of sporting contexts, utilising open and closed questions to collect data on participants' online professional development experiences. Data were analysed using reflexive thematic analysis, conceptualising personal learning dispositions in respect to participants intentionality (open-mindedness, inquisitiveness, awareness) and reciprocity (openness to co-operation, accommodation of alternative views) (Griffiths and Armour, 2013).

Analyses highlighted that practitioners' social media circles were a primary source for CPD identification, where opportunities that afforded dedicated time to engage in reflective peer discussions were most valued. That said, participants warned that such provision did not inevitably improve learning engagement, as often the desire to 'pump out' content led to disconnected and unstructured experiences, devoid of participant voice. The data provides evidence to support a call for governing bodies and online coach education providers to move beyond simple 'content' provision and consider learners, pedagogy and pedagogic design in effective online learning contexts (Cushion & Townsend, 2018).

Might “Early Identity Maturation” Be a More Inclusive Concept Than Identity Foreclosure? Identity and School Alienation in Adolescent Student Athletes and Non-Athletes

Mr. BERKCAN BOZ (Ege University Faculty of Sport Sciences), Dr. Olcay Kiremitci (Ege University Faculty of Sport Sciences)

Consideration of psycho-social identity models are limited in student athlete studies while many studies focus on “Athletic Identity”. Besides, studies seem to focus on result-oriented outcomes of educational life such as academic performance, motivation and career development when evaluating identity foreclosure in student athletes. However, the concept of school alienation, which includes academic, social, psychological and organizational aspects, may contribute to understanding student athletes’ foreclosure and educational outcomes with multi-dimensional approach. The aim of the present study is to examine identity development and school alienation states of adolescent student athletes and their non-athlete peers. 2422 individuals (1238 (51.1%) student athletes, 1184 (48.9%) non-athletes) participated in the study. Based on Erikson and Marcia identity theories, Dimensions of Identity Development Scale and Athletic Identity Measurement Scale were used. Student Alienation Scale was used as to measure school alienation on the basis of Seeman’s alienation concept. Findings show statistically significant differences on commitment making, identification with commitment, exploration in depth and ruminative exploration dimensions between student athletes and non-athlete peers. No significant difference was found between the two groups on the exploration in breadth. According to hierarchical cluster analysis; student athletes’ distribution in mature identity status is higher while non-athletes show higher distribution in less mature status. Although non-athletes have more unfavorable tendencies in school alienation, effect sizes are considerably small. Commitment is a significant predictor of school alienation in student athletes. Increase in parameters associated with time spent in sport and mastering may adversely affect school alienation in student athletes. In conclusion, the concept of early identity maturation may provide a more comprehensive sense than identity foreclosure in student athlete population. Student athletes have multi-directional tendencies in terms of both identity development and school alienation; thus, single directional evaluations and over-generalizations should be avoided.

Physical Literacy Assessment for Teenagers: Design and first validation steps for ELIP (Evaluation de la Littératie Physique)

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Introduction: Physical literacy is considered as the foundation to build physically active citizens on a long-term basis (Whitehead 2010). Nevertheless, its evaluation is still a complex issue and assessment tools are still needed for scientific and pedagogical issues. The aim of this study is to propose different steps for designing and validating the first assessment tool of physical literacy for French high-school students.

Methodology: Based on the Delph method (Green 2014), we have gathered a group of experts to design the foundations of an assessment tool. After keeping items on which there were the greatest consensus (content validity), we refined this tool through cognitive interview method (Willis et Artino 2013). To check internal and criteria validity, tool was tested on high school students ($n > 300$), some of which have been equipped with accelerometers ($n > 100$). Finally, external validity was tested through the French version of *Perceived Physical Literacy Instrument* (Sum et al. 2016).

Results: Our results show that the ELIP could be assessed through four dimensions, which correspond as physical, cognitive, psychological, and social dimensions. The ELIP's tool consists of four questionnaires and three motor tests. We will present these different tools and expose the different psychometric parameters (content validity; internal validity; external validity; criterion validity).

Conclusion: ELIP is the first assessment tool for French old adolescents with evidence based psychometric parameters. On one hand, this tool will be interesting for end-of-stage assessment in PE. On the other hand, this instrument could be used to analyze the level of physical literacy as a determinant to maintain a physically active lifestyle during the life transition.

Portuguese Physical Literacy Assessment Questionnaire (PPLA-Q): Development, content validation and pilot testing

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Introduction: Physical Literacy (PL) is a concept based on lifelong holistic learning acquired and applied in movement and physical activity (PA) contexts, argued as the main outcome of quality physical education (PE), ensuring skills and values for meaningful lifelong PA participation. To provide an operational model for application in schools and clubs, researchers developed the *Australian Physical Literacy Framework* (APLF). We developed the *Portuguese Assessment of Physical Literacy* (PPLA), a novel tool for application in PE settings, targeting high-school students – aligned with the APLF and the Portuguese PE curricula. This presentation will describe the development, content validation, and pilot testing of the *PPLA – Questionnaire (PPLA-Q)*, comprised of modules to assess the *cognitive, psychological, and social* domains of PL (*physical domain module still in development*).

Methods: Development of the PPLA-Q was supported by the APLF and literature review; an iterative process gathered evidence on content validity including: two rounds of qualitative and quantitative expert validation (n= 11; using Content Validity Index [CVI] and Cohen's kappa [k]); three rounds of cognitive interviews with high-school students (n=12); and multiple instances of expert advisor input. A pilot study (n=41) assessed feasibility, preliminary reliability (item and internal consistency), item difficulty and discrimination.

Results: Initial versions of the PPLA-Q showed good content validity: most I-CVI $\geq .75$ and $k \geq .76$; S-CVI/Ave and UA were .87/.60, .98/.93 and .96/.84 for the cognitive, psychological, and social modules, respectively. Through the pilot study, we found preliminary evidence for acceptable internal consistency, item reliability, difficulty, and discrimination. Items were reviewed through qualitative methods until saturation. PPLA-Q consists of 3 modules: cognitive (knowledge test with 10 items), psychological (46 Likert-type items) and social (43 Likert-type items).

Conclusion: After further validation and development, this tool might inform PE teachers' didactic decisions, and support adolescents on their PL learning journey.

Qualitative systematic review of sports coaches' and teachers' perceptions and application of game-based approaches, nonlinear pedagogy, and constraints-led approach.

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Since the inception of Teaching Games for Understanding (TGfU) in 1982 (Bunker and Thorpe, 1982) a myriad of game-based approaches (GBAs) (e.g. Game Sense and Play Practice) have been developed (Griffin, Brooker and Patton, 2005). Along with GBAs, nonlinear pedagogy and constraints-led approach have also gained the attention of researchers and sports practitioners (Chow, 2013; Renshaw et al., 2016). While studies have reported on coaches' and teachers' perceptions and application of these pedagogies, to date there has not been a systematic review on sports coaches' and teachers' perceptions and application of game-based approaches, nonlinear pedagogy, and constraints-led approach.

Using a range of search strings (e.g. "Game-Based Approaches" OR GBA, and "Nonlinear Pedagogy" OR "Nonlinear Pedagogy" OR "Nonlinear Pedagogies" OR "Non-linear Pedagogies" OR "Constraints Led Approach" OR "Constraints-Led Approach", and "Tactical Games Model" OR "Play Practice" OR "Game Sense") twelve databases (EBSCOhost (SPORTDiscus and Education Research Complete), Web of Science, Scopus, Taylor and Francis, ScienceDirect, Wiley, Emerald, Ingenta Connect, Google Scholar, Sage, ProQuest (PsycINFO), and PubMed Central) from 1982-2019 were searched for papers where 18,087 papers were identified and screened against the eligibility criteria. Twenty-nine of these papers met the eligibility criteria and were accepted in the review.

The systematic review will look to analyse and evaluate: 1) coaches' and teachers' perceptions of game-based approaches, nonlinear pedagogy, and constraints-led approach; 2) how coaches and teachers plan and apply game-based approaches, nonlinear pedagogy, and constraints-led approach in their practice; 3) the challenges and successes sports coaches and teachers have experienced with game-based approaches, nonlinear pedagogy, and constraints-led approach; and 4) the language used to define game-based approaches, nonlinear pedagogy, and constraints-led approach terminology. While the systematic review is in progress, it is anticipated that some of the findings can be shared by the time of the conference.

Stories to return by: A narrative inquiry into the integrating of professional and spiritual identity of two physical education teachers

Ms. HYESEUNG LEE (Texas A&M University)

This study revolves around the storied experiences of two former physical education (PE) teachers—one from the US and another one from South Korea—in teacher training, joining the profession, leaving it, and then returning to the field of PE. Taking narrative inquiry as an umbrella research methodology, this research probes into professional/spiritual identity integration experienced by the physical educators.

The research methods underpinning this narrative inquiry are *serial interpretation* and *parallel stories*. The serial interpretation method enabled the researcher to gather the US PE teacher's narrative from multiple studies, to retell her story of living, leaving, and returning, and to interpret her biographical narrative with encompassing ideas. Using parallel stories as both method and phenomenon, the researcher's autobiographical narrative was interweaved with the US PE teacher's story into a parallel story embracing the past-present-future continuum of their career paths.

Unfolded in a letter format, the parallel story is conceptually framed with “story to live by” and “story to leave by”—the narrative conceptions of teacher identity and teacher dropout—and with the professional and spiritual concepts of calling. Through capturing the evolution (separating, connecting, and integrating) of the teacher professional/spiritual identity, this study adds a layer of narrative understanding on physical educators' career shift and introduces a new idea—*stories to return by*. This emerging concept of *stories to return by* is presented as physical educators' restorative journey to discover a holistically integrated sense of self.

This study ends with a discussion of spiritually grounded physical education teacher education that interrelates the nature of PE with the teacher candidate's professional and spiritual identity so that the connectedness between mind, body, and soul, and the interconnectedness within the self can happen.

Teachers Stories in Physical Education: Using Narrative Methods to Understand Teacher Socialization

Ms. Xiaoping Fan (University of Northern Colorado), Dr. DR. JAIMIE MCMULLEN (University of Northern Colorado)

Scholars have used occupational socialization theory to identify how individuals become members of the society of teachers and address the factors that contribute to their decisions and behaviors (Richards, Templin, & Graber, 2014). The majority of studies have employed qualitative methods, including interviews and observations (Richards, et.al, 2014). However, there is a gap in the research that spans the lives and careers of physical education teachers (Day, Sammons, Stobart, Kington, & Gu, 2007). Using occupational socialization theory as a guiding framework, this narrative study was designed to understand the teacher socialization process in physical education using narrative methods.

Participants were two physical education teachers located in one state in the United States. Data sources included critical incident timelines, semi-structured interviews, and follow-up interviews (Iannucci & MacPhail, 2018). Interview transcripts and critical incidents were analyzed utilizing thematic narrative analysis (Riessman, 2008).

Findings are represented through three phases of occupational socialization theory. In the acculturation phase, participants shared stories that impacted them to enter a teacher education program, including previous experiences with kids, activity/sports experiences, subjective orientation, agents, positive physical education. During professional socialization, participants shared the experiences that their transition to a physical education teacher: physical education teacher education (PETE) coursework, field experiences and student teaching, socializing agents (i.e., faculty, peer, and cooperating teacher), job preparation in PETE program, and negative factors. In the organizational socialization phase, participants' teaching and professional development were influenced by agents, professional development experiences, and negative factors. Results highlight that agents and multiple experiences shape a teacher that is committed to the profession of physical education. In addition, teachers play active roles in the process of socialization because teacher socialization is a dialectical process (Lawson, 1983).

Teachers' implementation of Meaningful PE: The role of teachers' experiences and beliefs and students' responses and behaviour

Ms. Stephanie Beni (Brock University), Dr. TIM FLETCHER (Brock University), Dr. DR. DÉIRDRE NÍ CHRÓINÍN (Mary Immaculate College)

This research is focused on teachers' implementation of the Meaningful Physical Education (PE) approach, which prioritizes meaningful experiences for students through an explicit focus on six pedagogical features and the incorporation of autonomy-supportive strategies that support student goal-setting and reflection. Following five years of development in PE teacher education programs and two pilot studies in primary/elementary PE classrooms in Ireland and Canada, the purpose of this project was to expand implementation of the Meaningful PE approach by introducing it to twelve primary/elementary PE teachers in Ontario, Canada. Previous research has shown that, although PE teachers show a willingness to change their pedagogical practice, innovative teaching approaches are rarely sustained beyond the initial point of implementation (Goodyear & Casey, 2015). We were interested in understanding teacher's experiences of learning about and implementing the Meaningful PE approach in their classrooms over a two year period.

Qualitative data sources included semi-structured teacher interviews, professional learning community conversations, and non-participant observations. We use Century and Cassata's (2017) list of conceptualizing factors influencing innovation implementation to make sense of the various factors that influenced teachers' perceptions and implementation of the approach. In this presentation we focus specifically on the influence of teachers' prior experiences and beliefs about PE on the implementation process. For instance, participants perceived the ideas behind Meaningful PE to align with their tacit vision for teaching PE but perceived that their implementation of the approach allowed them to become more intentional in translating their vision into practice. Teachers' implementation decisions were also strongly influenced by their students' responses and behaviour during the implementation process. This research has allowed us to refine the innovation and how it could be presented to teachers in the future. Moreover, this research offers empirical insight into the teacher change process in PE when implementing an innovative approach.

The Influence of Occupational Socialization on the Implementation of the Sport Education Model among Experienced In-Service Physical Educators

Mr. MARTIN VASQUEZ (University of New Mexico), Dr. DR. TRISTAN WALLHEAD (University of Wyoming)

Background. Sport Education (SE) is a pedagogical model that has demonstrated extensive empirical evidence for delivering on valued educational outcomes. Despite this progress, knowledge of how in-service teachers' choose to implement the model in practice remains limited. Specifically, we have limited understanding of the socializing agents that influence in-service teachers' use of the SE model features during professional practice. **Purpose.** The purpose of this study was to examine the influence of occupational socialization on in-service teachers' implementation of SE. A survey instrument was developed and used with 65 in-service teachers who had been taught to use SE during their PETE program to examine how their socialization experiences influenced their use of the model features. Following survey instrument validation, hierarchical linear regression analyses were conducted to examine significant relationships between the three phases of occupational socialization and teachers' use of the model features. **Results.** Aligned with previous research, results indicated that teacher implementation of SE during practice varied from full, modified and light versions of the model (Stran & Curtner-Smith, 2009). The SE features implemented were formal competition, team affiliation, and seasons. The more student-centered features of student roles, record keeping, and a culminating event were less frequently used during practice. Regression analyses revealed professional socialization to be the only significant predictor of teachers' use of the SE model features. **Discussion.** Professional socialization remains the most powerful influence on in-service teachers' professional use of SE during their professional practice. The washout of the more student-centered features of the model suggests that faculty need to continue to explore teaching strategies that can facilitate pre-service teachers' understanding and implementation of these important features of the model.

The Influence of PE Biographies on Female Secondary PE Teachers' Induction into School Context

Dr. OKSEON LEE (Seoul National University), Ms. Ara Cho (Seoul National University), Ms. YERI HONG (Seoul National University), Dr. Hyukjun Son (Seoul National University)

Background: The number of newly hired secondary PE teachers has been increased for the last two decades in South Korea. However, there is limited research on how secondary female PE teachers are socialized into PE teaching profession.

Purpose: Given the significance of past PE experiences in shaping teachers' values, beliefs and practice, this study explored the influence of PE biographies on beginning female secondary PE teachers' induction into South Korean school context.

Methods: Participants were five female secondary PE teachers who have less than five years of teaching experience (Avg exp=2.6 years). Data which were collected from biographical timeline and in-depth interviews were analyzed inductively.

Findings: Findings revealed that female secondary PE teachers' past school PE experiences were influenced by gender stereotype demonstrated from PE teachers. Given that female PE teachers had a relatively high level of sport skills than others, they were considered as "sport stars" but also were isolated from peers by not conforming to gender-appropriateness. In addition, there were limited opportunities to have a role model because most male PE teachers supported motor elitism and demonstrated masculine images while female PE teachers had an image of police women. Participants' patterns of induction into school settings were categorized as: (a) conforming and replicating traditional PE teachers' experiences, (b) silencing the negative PE culture (e.g., motor elitism, gender stereotype) while replacing PE teaching roles with administrative work, or (c) actively seeking the role identities of female PE teachers by participating in teacher learning communities and voicing their opinions through social media.

Conclusion: The findings suggested that the PETE programs should provide critical reflective experiences with female teacher candidates to examine their past experiences, explore role identity as PE teachers, and ultimately to challenge and transform their PE teaching ideologies during the induction stage.

The Influence of Pre-service Elementary Teacher Biographies on Teaching Physical Education

Dr. William Walters (Saint Francis Xavier University), Dr. Wendy Barber (Ontario Tech University)

This research examined how the biographies of generalist elementary school pre-service teachers (PSTs) school can influence their experiences within a Canadian physical education teacher education (PETE) program. In addition, how did these same experiences, specifically within physical education (PE), influence the PST's self-confidence and self-perceived competence as physical educators? Hyndman et al. (2016; 2017), amongst others, suggest there is a paucity of research studying the influence of early school PE experiences on generalist PSTs' understanding, valuing, and approaches to PETE. The limited research finds the narratives of these non-specialist PSTs can influence their understandings of PE pedagogy (Davis, 2020; Haynes et al., 2016). In Canada, as it is elsewhere, the majority of elementary generalists are required to teach PE (Fletcher & Mandigo, 2012; Freak & Miller, 2017; Petrie, 2010). This phenomenological case study involved 112 PSTs enrolled in a mandatory 36-hour curriculum and instruction course in PETE at a Canadian university. A mixed-methods approach sought to answer the question of how the biography of generalist PSTs influenced their self-confidence and self-perceived competence to teach PE. Researchers conducted an online survey, focus groups, and individual interviews. Interviews and focus groups were audio-taped, recorded, transcribed verbatim, and analysed using thematic analysis. The results showed a clear dichotomy between those PSTs who had negative PE experiences and those with positive past experiences. PSTs expressed significant doubt in their ability to teach PE if their PE experience was unpleasant or less than satisfactory. Those with favourable memories of PE indicated that they had greater self-confidence and self-perceived competence. More importantly, findings further indicated that a non-competitive, inclusive pedagogical approach to delivering and teaching the mandatory PE class had a positive effect on supporting PSTs to develop greater self-confidence and self-perceived competence. This research is ongoing and has expanded to include two other Canadian universities.

The relationship between teachers' understanding of curriculum development and assessment in Ireland

Ms. Lorraine Counihan (University of Limerick)

Recent attention has focused on the provision for curriculum policy to be reconceptualized and changed to meet the challenges and opportunities which face students in the 21st century (Marope 2018; Sinem & Priestly 2019) This research explores the implications of Continuous Professional Development on teachers understanding of curriculum development and assessment change. It also considers what supports teachers understanding and also the barriers which may exist to teachers understanding of curriculum and assessment change.

Theoretically Informed Professional Development Through Design: Engaging Teachers in the Construction of a Quality Online Physical Education Course

Dr. DR. CHAD KILLIAN (Georgia State University), Mrs. SHELBY E. ISON (University of Illinois), Mrs. SHANNON A. PENNINGTON (University of Illinois), Ms. KACIE LANIER (Georgia State University), Dr. DR. LAUREN KILLIAN (Deep See Strategies, LLC)

Background: Online instruction became the primary modality for teaching K-12 physical education (PE) as a result of extended school closures brought on by COVID-19 public health mandates. However, there had been a steady increase in the use of online and blended instruction in PE prior to the pandemic. Despite this, there is a general lack of research to support the development of best practices in online physical education (OLPE). **Objective:** The purpose of this study was to investigate a professional development (PD) process created to guide high school PE teachers in the construction and provision of a quality OLPE elective course. **Method:** This project occurred as part of a longitudinal case study examining the adoption and evolution of OLPE within a large, diverse suburban school district located in the Midwestern United States. The PD process built on results observed during the first two years of the study and was developed using the Unified Theory of Acceptance and Use of Technology (Venkatesh, et al., 2003; 2012) and the Technological Pedagogical Content Knowledge Framework (TPACK; Mishra & Koehler, 2006). Individual and focus group interviews were conducted with six PE/OLPE teachers to gain insight into their perceptions and experiences participating in the PD and course design processes. Transcripts were coded and analyzed for preliminary themes. **Results:** Four initial themes were developed. Overall, teachers appreciated the PD support and felt more capable as a result of participating. *They noticed greater alignment between content, physical activity, and assessments; Teachers took an active role in the course design and adapted the materials to best serve their students; Teachers struggled teaching content in other courses; and The pandemic created barriers to optimizing the course.* **Conclusion:** A theoretically informed PD process created to engage teachers through design can support teachers in the provision of quality OLPE.

**Oral Live Presentations -
Young Scholar Award
Winners**

A Bildung Theoretical Underpinning of Models-based Practice in Physical Education

Dr. MATS HORDVIK (Norwegian School of Sport Sciences), Prof. Kenneth Aggerholm (Norwegian School of Sport Sciences)

In recent years we have seen a growing academic interest in Models-based Practice (MbP) in physical education. A central part of MbP is pedagogical models, which shifts the organizing centre of physical education from content to the interconnected elements of the curriculum, teaching, learning, and assessment (Casey & Kirk, 2021, p. 9). While the different pedagogical models are theorized and developed in practice and research (Casey & Kirk, 2021), there is a lack of theoretical underpinning of MbP as a framework for teaching in physical education. Furthermore, while single models have been adopted in multiple contexts there is a lack of consensus about how to work with MbP in practice.

Against this background, the purpose of this presentation is double: (i) examine the potential relevance and value of drawing on Bildung-theory as a theoretical underpinning of MbP; (ii) use the Bildung theoretical foundations to inform ways of working with MbP in physical education.

Specifically, drawing on the German Bildung theorist, Wolfgang Klafki, and his historical and didactical analyses of the process, content, and aims of Bildung, we focus on his arguments concerning (i) the role of agency, (ii) attention to a variety of human dimensions and capacities, (iii) the selection of general themes, and (iv) the critical and political aims of Bildung.

Using Klafki's ideas to critically examine the existing arguments concerning MbP, we highlight both commonalities, i.e. where Bildung-theory can underpin ways of working with MbP, as well as points of disagreement, i.e. where Bildung-theory can inform the continuous development of MbP.

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A movement for social justice in physical education: BAMEPE and its challenges

Dr. SHREHAN LYNCH (she/her) (The University of East London), Ms. Laura McBean (The University of East London)

Physical education (PE) is still considered a homogenous predominantly white group with people of colour historically being marginalised in the profession (Flintoff, Dowling & Fitzgerald, 2015; Simon & Azzarito, 2019; Blackshear, 2020). In 2019, as a call to action in England, the presenters share how they voluntarily began the BAMEPE (Black, Asian and Minority Ethnic) network to help address the lack of diversity of all marginalised groups within the profession. We have researched, presented and started several initiatives to fulfil our vision: (i) to raise the profile of physical education, (ii) to make changes in physical education to promote equity and equality, (iii) to support BAME physical educators, (iv) increase the number of BAME physical educators in PE teacher education recruitment, and (v) to engage BAME physical educators in research opportunities and network meet-ups. Our presentation shares our work but also details the complex issues surrounding our movement and initiatives. Specifically, advocating for representation is a political act, entangled within structures of inequity and inequality at both the national organisation level and within educators deeply held assumptions related to the subject matter. Moreover, the terms *equity*, *diversity*, and *inclusion* are often buzzwords used by institutions and educators without tangible acknowledgement into challenging structural inequities and inequalities. We hope that attendees leave the presentation with greater knowledge on our movement and the activism work we are carrying out with our communities. Additionally, we hope attendees choose to join our voluntary network as a form of solidarity with marginalised groups within the discipline.

College students previous physical education experiences: Student content beliefs, emotions, and outcomes

Dr. DR. KELLY SIMONTON (University of Memphis), Dr. DR. NICHOLAS WASHBURN (Western Washington University), Dr. DR. LAURA PRIOR (University of Mississippi), Dr. DR. VICTORIA SHIVER (Northern Illinois University), Mr. Sean Fullerton (University of New Mexico), Dr. DR. KAREN GAUDREAULT (University of New Mexico)

Background and purpose: Students often experience a decline in physical activity (PA) attitudes and behaviors as they transition into college. Common attributes that impact beliefs include previous negative experiences in Physical Education (PE). Research indicates PE emotions may influence long-term attitudes and behaviors but can often be overlooked. In addition, despite declines in team sport participation into adulthood, this content continues to dominate PE curricula and may be less relevant for students. The purpose of this study was to (a) report on students' perceptions of PE content they experienced, what they wished they had experienced, and content most important for adulthood, and (b) to investigate the influence of emotions on PA attitudes, behaviors, and physical self-concept. **Methods:** College students ($N=351$; $M_{age}= 19.75$; 65% Female) from four US universities participated. Participants reported beliefs about PE content, previous PE emotions (enjoyment, boredom, relief, and shame) and current attitudes toward PA, self-concept, and moderate to vigorous PA (MVPA) behaviors. Multi-factor confirmatory factor analysis (CFA) and structural equation modeling were used to evaluate relationships. **Results:** Participants reported last PE experience ($M_{age}= 15.97$) most frequent content (team sports; fitness education; individual sports), content they wished was taught (fitness; personal/social skills; outdoor education), and content viewed most important in adulthood (personal/social skills; fitness; outdoor). SEM revealed PE enjoyment predicted positive PA attitudes and MVPA. Shame and boredom predicted negative PA attitudes, and shame significantly reduced physical self-concept. Overall, emotions explained approximately 14%, 14%, 37%, and 12% of variance for MVPA, positive, negative PA attitudes, and physical self-concept, respectively. **Conclusions:** Findings indicate that potentially what is being taught in PE misaligns with students' interests and post-graduation pursuits. Further, emotions experienced in PE may have a lasting impact on views toward PA. A call for future research examining the impact of content preference on emotional response is made.

Permission to speak freely? Facilitating young people's voices in physical education and youth sport

Dr. DR. OLIVER HOOPER (Loughborough University), Dr. DR. RACHEL SANDFORD (Loughborough)

Young people are increasingly being recognised as competent social agents, capable of understanding and articulating their own experiences and making important contributions to discussions about matters that affect them (Sandford, Armour & Duncombe, 2010). Consequently, a youth voice agenda has emerged within research with young people, which seeks to include their voices more meaningfully and authentically within the research process (Hooper, 2018). Whilst this agenda has undoubtedly enabled progress to be made, we suggest that further consideration needs to be given to the complexities and challenges of facilitating young people's voices within research in physical education (PE) and youth sport. In particular, we argue that questions need to be raised about whose voices are being heard and how representative these voices are, given that there is much potential for young people's voices to be 'silenced' or 'forced' – often on account of ethical processes (e.g. access and consent) or hierarchical power structures within the field. Therefore, within this paper, we seek to consider how youth voice might be (re)conceptualised within research in PE and youth sport and, in doing so, problematise the notion of 'authentic' voices. We highlight some of the problematic ways in which voice is conceptualised within research, and in particular the notion of 'giving voice', which contradicts perspectives which position young people as agentic subjects (Bucknall, 2014). Subsequently, we consider the implications of working towards a youth voice agenda and highlight some of the issues that can be faced in this regard – noting, specifically, the challenges posed by the COVID-19 pandemic (Hooper, Sandford & Quarmby, 2020). Finally, we propose ways forward for research committing to a youth voice agenda within PE and youth sport and discuss how researchers might best facilitate young people's voices in meaningful ways, such as through 'pedagogies for voice'.

Student voice in primary physical education: A 30-year scoping review

Dr. CASSANDRA IANNUCCI (Deakin University), Dr. DR. MELISSA PARKER (University of Limerick)

Listening to student voice offers valuable insights into the complexities of teaching and learning useful to improving the quality of physical education (PE) in schools. While the literature of the past decade reveals an increased focus on student voice in PE; the majority reflects the thoughts, feelings, and experiences of secondary-level students. The perspectives and experiences of students in primary PE remain less visible, leaving us with an incomplete understanding of what is occurring at the primary level.

The purpose of this scoping review was to map ‘what peer-reviewed data on student voice in primary PE were published between January 1990 and March 2020?’ and in doing so provide a useful overview of the existing research. This paper provides a review of 89 articles that accessed student voice in primary PE. Arksey and O’Malley’s (2005) processes for conducting scoping reviews guided data collection, extraction, and analysis.

Results indicate three dominant themes: perceptions of PE, learning, and pedagogical approaches. Most notably, results indicate that authentic student voice remains relatively absent from the current body of literature. Yet, it is evident that when students are given an authentic opportunity for their voice to be heard, the results are positive; students are more engaged in learning.

Conclusions highlight a need for democratic possibilities for primary students to engage and contribute to their PE learning experiences as well as a continued exploration of authentic methods of accessing and responding to student voice in primary PE. Children’s voice is important. We have started to request their voice, and we have, maybe, begun to listen to their voice, but little is done with it (yet). To continue to progress from doing research ‘on’ children to ‘with’ children, we must listen with the intent of receiving, constructing meaning from, and responding to and with students’ voices.

“I actually feel very cheated”: Physical education trainee teachers’ perceptions of funding unfairness in England

Dr. DR. ASHLEY CASEY (Loughborough University), Dr. SHREHAN LYNCH (she/her) (The University of East London)

The retention and recruitment of quality teachers has been a notable issue for decades. One UK policy approach to these shortages has been the provision of individual scholarships/bursaries for trainees in certain subjects. However, these significant stipends have not only failed to address recruitment deficiencies they have also led to feelings of resentment and frustration and occurrences of near poverty in subjects (such as physical education) where no such schemes exist.

Drawing on the reported experiences of 75 physical education trainees in the academic year 2019-20, this study investigates both the finance-related worries and/or a perceived requirement or desire to work whilst training to teach physical education and the feelings of inequity that prevailed for some aspiring teachers.

Our findings showed that some trainees were “struggling to afford basic needs” because the student loans they received did “not cover the cost of rent, bills and travel.” Consequently, they felt required to work and/or rely on support from either parents and partners or from their own savings in order to survive (Theme: *the workers and financial backing*). Financial difficulties resulted in hardship and wellbeing issues and feelings of intense worry related to securing a job and paying off their loans (theme: *strife, struggle, and sacrifices*). Finally, issues of fairness regarding funding were raised. Some trainees felt they were doing the same course but were rewarded very differently to their peers. This led them to feeling “very cheated.” (Theme: *Unfairness and inequity*). Our presentation encourages the audience to be aware of issues faced by trainee teachers who have to work or have financial difficulties and makes recommendations for those working in PETE for a more equitable teacher training experience. Moreover, we share advice that can be used for addressing policy inequities so that the issue of “free labor” is addressed.

“Two different worlds”: Black and Latinx PETE students’ conceptualizations of culturally relevant and sustaining pedagogies

Dr. DR. MARA SIMON (Springfield College), Dr. Korey Boyd (Springfield College), Dr. Cory Dixon (Rowan University)

Given the overwhelming numbers of white professors and pre-service teachers in PETE (Ayers & Housner, 2008), the cultural disconnect for pre-service teachers of color is one informed by whiteness, structural racism, and teaching and learning characterized by a “deficit” approach. In contrast, culturally relevant and sustaining pedagogies (CRSP), including academic excellence, cultural competency, and sociopolitical consciousness, represent a framework that facilitates both “within-group” and “across-group” cultural practices for students and teachers of color to not only exist but thrive (Ladson-Billings, 2001; Paris, 2012, p. 95). However, PETE programs rarely address CRSP or provide pre-service teachers with the tools to capably enact this pedagogical framework (Clark, 2020). Therefore, we aimed to understand how pre-service PE teachers of color conceptualize CRSP. We developed a qualitative visual inquiry with ten Black and Latinx PETE students participating in three in-depth, narrative-based, semi-structured, and conversational interviews, coupled with participant-generated imagery (Switzer, 2018). Verbal and visual data were analyzed inductively, aggregating codes to form broad themes, and deductively, where data were contextualized through a CRSP framework (Rose, 2016). The results highlighted how participants, drawing from their own racialized narratives of PE, supported the idea of enacting CRSP on their own terms, along with taking up a social justice perspective. Participants demonstrated all three core tenets, particularly critiquing the cultural (in)competency of their PETE programs. The narratives present a compelling case for embedding CRSP within PETE, from pedagogy to curriculum to student-teaching, in order to cultivate an environment from which PE pre-service teachers of color can derive authentic meanings. Furthermore, the omnipresence of whiteness in PETE, from the “bracketing” of multicultural education courses to the failure to cultivate *all* students’ critical consciousness regarding racism as a social structure, subtly communicate to pre-service PE teachers of color the unimportance and invisibility of race within teaching and PE.

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