Welcome
AIESEP World Congress 2018

This book of abstracts contains summary details of all symposia, paper and poster presentations which are part of the 2018 AIESEP World Congress and its central focus on ‘Creating thriving and sustainable futures’ for physical education and sport pedagogy.

As such, it contains a wealth of chronologically organised details which are aimed to help you decide on those presentations you most wish to listen to and take part in. There is a lot of choice available as the various abstracts engage in a plethora of ways with the detail of how physical education and sports pedagogy can play a constructively part in shaping and reshaping educational futures. You will find examples of innovation in our field and elaboration on how creating and sustaining practical learning environments can plausibly connect with wider societal objectives for increasing physical activity, enhancing health and wellbeing and bolstering sporting achievement.

I hope the book of abstracts stimulates your interest and has you marking out certain sessions you immediately wish to attend and others where a more detailed review of various choices available can take place as the 2018 AIESEP World Congress unfolds.

Shirley Gray and Malcolm Thorburn
Organising Committee
Despite innovations in modern performance products, our athletes have always gone back to the original core training range.

This core kit is classically designed, durable and reliable.

The PlayerLayer athlete needs simple, long-lasting core kit, so they can focus on performance and training.
The USTA-endorsed, Professional Tennis Management (PTM) program at Bridgewater State University is designed to support the growth, training and preparation of tennis professionals for careers within the tennis industry. The first of its kind, BSU offers the only graduate level PTM program in New England, established within the College of Education and Allied Studies.

- One year, 16-credit graduate certificate
- Low residency, cohort-based program
- All PTM courses available online or hybrid, except a required 
  10-day, on-campus summer residency
- A 3-credit internship experience in the tennis industry required*
  *Experienced tennis professionals may opt for an elective in lieu of internship
- Enrolling Summer 2019

Contact:
Dr. Jennifer Mead - jmead@bridgew.edu
Dr. Karen Richardson - k1richardson@bridgew.edu
www.bridgew.edu/ptm
CALL FOR PAPERS:
Opens Monday, October 1, 2018
Closes Monday, January 7, 2019
Submit for oral or poster presentation,
roundtable discussion, or symposium.

Subthemes:
1. Education for Physical Literacy
2. Physical Activity and Public Health
4. Youth and Community Development
5. Maximal Individual and Team Performance

Preconference Offerings:
1. Teaching Personal and Social Responsibility Through Sport
   (3-credit or noncredit course)
2. Seminar on Research Methods for Early Career Academics
3. National Association for Kinesiology in Higher Education (1.5-day leadership workshop)

AIESEP 2019 International Conference at Adelphi University in Garden City, New York
June 19–June 22, 2019

Association Internationale des Écoles Supérieures d’Éducation Physique
International Association for Physical Education in Higher Education

Theme: Building Bridges for Physical Activity and Sport

To inspire partnerships, connections and shared opportunities for physical education and lifelong physical activity, play and sport through institutions of higher education, schools and communities

CALL FOR PAPERS:
Opens Monday, October 1, 2018
Closes Monday, January 7, 2019
Submit for oral or poster presentation, roundtable discussion, or symposium.

Subthemes:
1. Education for Physical Literacy
2. Physical Activity and Public Health
4. Youth and Community Development
5. Maximal Individual and Team Performance

Preconference Offerings:
1. Teaching Personal and Social Responsibility Through Sport
   (3-credit or noncredit course)
2. Seminar on Research Methods for Early Career Academics
3. National Association for Kinesiology in Higher Education (1.5-day leadership workshop)

AIESEP 2019 International Conference at Adelphi University in Garden City, New York
June 19–June 22, 2019

Association Internationale des Écoles Supérieures d’Éducation Physique
International Association for Physical Education in Higher Education

Theme: Building Bridges for Physical Activity and Sport

To inspire partnerships, connections and shared opportunities for physical education and lifelong physical activity, play and sport through institutions of higher education, schools and communities

Call adelphi.edu/AIESEP2019 for conference details, travel and accommodations information.
EXPLORING THE SOCIAL AND SCIENTIFIC EVOLUTION OF PHYSICAL AND HEALTH EDUCATION FROM POLICY TO PRACTICE.

Provisional date: June 2018

Stay tuned to find out:

2020 AIESEP CONFERENCE

Department of Sports Science and Physical Education
Faculty of Education, The Chinese University of Hong Kong (CUHK)

Evolving Teaching Models and Emerging Technologies:
THINK OUTSIDE THE BOX!

Provisional date: June/July 2020
More details will follow here when available:
# Table of Contents

1. **Young People and their Engagement with Health-related Social Media: New Perspectives**
   - Dr. Victoria Goodyear (University of Birmingham), Prof. Mikael Quennerstedt (Örebro university), Dr. Eimear Enright (The University of Queensland), Prof. David Kirk (University of Strathclyde), Dr. Lorraine Cale (Loughborough University)

2. **The self-study of physical education practices: A methodology for empowering practitioners and supporting professional learning**
   - Dr. Alan Ovens (The University of Auckland), Dr. Tim Hopper (University of Victoria), Dr. Chris North (University of Canterbury), Dr. Paul Mcmillan (University of Edinburgh), Dr. Nicola Carse (University of Edinburgh)

3. **Making the transition into adulthood – how are university students experiencing the physical literacy journey (The PLJUS collaboration)?**
   - Prof. John Saunders (Australian Catholic University), Prof. Brendan Cropley (University of South Wales), Prof. Lynne Kennedy (University of Chester), Dr. Katherine Markwell (University of Chester), Dr. Nalda Wainwright (University of W)

4. **ObLoMoV (Obesity and Low Motility Victims): combining physical activity and theatre to tackle inactivity in preteens**
   - Prof. Marc Cloes (University of Liege), Dr. Arja Sääkslahti (University of Jyväskylä), Dr. Nicolas Franck (University of Liege), Prof. Nikolaos Digelidis (University of Thessaly), Dr. Saara Ehalt (University of Jyväskylä)

5. **Collaborative pedagogical practices within teacher education: Supporting physical education students’ professional development as a teacher**
   - Dr. Kirsti Lauritsalo (University of Jyväskylä), Mr. Tommi Mäkinen (University of Jyväskylä), Dr. Anne Virtanen (University of Jyväskylä), Dr. Ulla Klemola (University of Jyväskylä), Prof. Päivi Tynjälä (University of Jyväskylä)

6. **‘It could be quite a lonely job being a mentor’: Exploring the learning and development of sports coach mentors**
   - Mr. Tom Leeder (University of East Anglia), Dr. Kate Russell (University of East Anglia), Dr. Lee Beaumont (University of East Anglia)

7. **Developing Artistic Gymnastics Coaches’ Professional Knowledge by Creating a Learning Community**
   - Mr. Koray Kilic (Middle East Technical University), Prof. Mustafa Levent Ince (Middle East Technical University)

8. **Teacher Learning Experiences Of Pete Students’ With The Peer Tutoring Model Through Community Of Practice**
   - Mr. Gokhan Sacmalioglu (Ankara University), Dr. Ferda Gursel (Ankara University), Dr. Ozlem Alagul (Kastamonu University)

9. **“I can dribble!”. On the relationship between children’s motor competencies and corresponding self-perceptions.**
   - Dr. Christian Herrmann (University of Basel), Dr. Harald Seelig (University of Basel)

10. **Influence of Physical Fitness on Academic Achievement in Chinese Adolescents: Evidences from a Longitudinal Study**
    - Prof. xu wen (Zhejiang University)
A Trial of EF-Oriented Physical Activities for Preschoolers in China
Ms. Yiran Wang (Peking University), Prof. Jinxia Dong (Peking University)

Valuing movement: A case study of the pedagogical potential of embodied learning in physical education
Dr. Karen Lambert (Monash University), Dr. Justen O’Connor (Monash University)

Castle’s Competition Model for Building Confidence and Competence in Action.
Mr. Neil Castle (Canterbury Christ Church), Dr. Kristy Howells (Canterbury Christ Church University), Dr. Laura Gubby (Canterbury Christ Church University)

Evaluating the impact of two feedback methods for improving pre-service teacher’s perceived confidence and competence to teach physical education within authentic learning environments
Dr. Narelle Eather (University of Newcastle), Dr. Nick Riley (University of Newcastle), Dr. Andrew Miller (University of Newcastle), Dr. Scott Imig (The University of Newcastle)

Cooperative Learning as a pedagogical practice to help students develop their Social and Emotional Learning
Dr. Ben Dyson (The University of Auckland), Ms. Rachel Colby (Stonefields Primary School)

Implementing Teaching for Personal and Social Responsibilities (TPSR) to build a positive hockey team in secondary school - An action research approach
Prof. Si Man Lei (University of Macau), Dr. Soi Po Wong (University of Macau), Mr. Ka Hei Lam (Saint Paulo Secondary School), Mr. Chi Hong Leong (University of Macau)

A novel application of TPSR in Australia through school-sports club partnership
Dr. Sue Whatman (Griffith University), Dr. Katherine Main (Griffith University)

Sports and Social Responsibility in Extra-curricular School Activities – Less Education for More Success?
Prof. Tim Bindel (Johannes Gutenberg-University Mainz), Mrs. Bianca Becker (University Wuppertal)

Personal and social development in physical education: a systematic review
Ms. Katrijn Opstoel (Utrecht University), Dr. Frans Prins (Utrecht University), Prof. Leen Haerens (Ghent University), Prof. Jan van Tartwijk (Utrecht University), Prof. Kristine De Martelaer (Vrije Universiteit Brussel and Utrecht University)

Peer-tutoring in inclusive physical education: addressing stigma and enhancing empathy in early adolescents
Dr. Erica Gobbi (University of Padua), Prof. Attilio Carraro (University of Padua)

Better Learning with Fair Play in Physical Education?
Dr. Petter Leirhaug (Western Norway University of Applied Sciences), Mr. Åge Lauritzen (Western Norway University of Applied Sciences), Mrs. Reidun Fretland (Western Norway University of Applied Sciences), Mr. Joar Fossøy (Western Norway University of Applied Sciences)

Dodgeball: Is the unintended outcome of Dodgeball teaching the five faces of oppression?
Dr. Joy Butler (The University of British Columbia), Dr. David Burns (Kwantlen Polytechnic University)

The Organizational Roles, Responsibilities, & Tasks Of An Elite-Level Basketball Coaching Staff
Prof. Bryan McCullick (University of Georgia), Prof. Paul Schempp (University of Georgia), Dr. Tiffany Isaac (Xavier University), Mr. Ashton Dooley (University of Georgia)
Crafting a one-dimensional identity: Exploring the nexus between totalisation and reinvention in an elite sports environment
Ms. Yoon Jin Kim (University of Otago)

Elite Gaelic football coaches' interpretation and use of game-based approaches
Mr. Paul Kinneker (University of Limerick), Dr. Stephen Harvey (Ohio University), Dr. Ciarán MacDonncha (University of Limerick), Dr. Mark Lyons (University of Limerick)

Learning to be a player-centred coach: perspectives from the sideline
Dr. Anne O'Dwyer (Mary Immaculate College), Dr. Richard Bowles (Mary Immaculate College, Limerick), Dr. Déirdre Ní Chróinín (Mary Immaculate College)

‘Could have done better’: Teachers’ interpretation and implementation of the new National Curriculum for Physical Education (NCPE) in England.
Dr. Frank Herold (University of Birmingham)

‘When an old cricketer leaves the crease’: Bittersweet reflections on examination awards in physical education
Dr. Malcolm Thorburn (University of Edinburgh)

Transformative assessment in the subject of physical education.
Dr. Björn Tolgfors (University of Örebro)

Preservice Teachers’ Assessment Implementation in Models Based Practice
Ms. Jenna Starck (The University of Alabama), Dr. Oleg Sinelnikov (The University of Alabama), Dr. Kevin Richards (The University of Alabama)

Physical Education Teacher Education (PETE) 2.0: Pre-service Teachers’ Perceptions on Developing Digital Twitter Skills during PETE training
Dr. Brendon Hyndman (Charles Sturt University), Dr. Stephen Harvey (Ohio University)

Implementation of OneNote as a tool to promote partnership in learning and teaching in PETE: learner understanding and motivation of preservice physical education teachers
Prof. Rui Marcelino (University Institute of Maia - ISMAI), Prof. Mariana Cunha (University Institute of Maia - ISMAI), Dr. Rui Araújo (Faculty of Sport, University of Porto), Prof. Júlia Castro (University Institute of Maia - ISMAI)

Information And Communication Technology (Ict) Integrated Into Physical Education (Pe) Lessons: Learning And Teaching Perspectives
Dr. Pascal Legrain (University of Bordeaux)

Draw me a picture: Using a modified photo-voice method to investigate a National HPE curriculum resource
Dr. Stephen Berg (The University of British Columbia), Dr. Daniel Robinson (St. Francis Xavier University), Dr. Lauren Sulz (University of Alberta), Dr. Douglas Gleddie (University of Alberta)

Physical Education Teacher Education programmes: A European perspective
Dr. ZULEYHA AVSAR (Uludag University), Mrs. Ozlem Sahin (Uludag University), Prof. Ann MacPhail (University of Limerick)

Being a self-study researcher in Physical Education: Exploring the interplay of practice and scholarship
Ms. Stephanie Beni (Brock), Dr. Thomas Templin (University of Alabama), Mr. Mats Hordvik (Norwegian School of Sport Sciences), Dr. Anne O’Dwyer (Mary Immaculate College), Mr. Stefan Ward (Central Washington University)
Transformative Learning and Teaching in Physical Education 37
Dr. Nicola Carse (University of Edinburgh), Dr. Andrew Horrell (University of Edinburgh), Ms. Justine MacLean (University of Edinburgh), Dr. Shirley Gray (University of Edinburgh)

Physical Education in China: Innovation, Impact and Implication 38
Prof. Jinxia Dong (Peking University), Dr. Bo Wang (Capital Sports University of Physical Education and Sports), Dr. Yan Liang (China Women’s University), Ms. Yijing Zhong (Peking University)

PETE students’ preferences and experiences with Constraints-based Didactics 39
Dr. Jan M Loftesnes (West Norway University of Applied Sciences), Mr. Dag Ove Hovdal (University of Agder)

Professional knowledge of PE teacher candidates for education for sustainable development (ESD) 40
Mrs. Julia Herb (University of Freiburg), Prof. Petra Giess-Stueber (University of Freiburg), Mr. Mathieu Lask-schoenmaekers (University of Freiburg)

The influence of a methods course in physical education on preservice classroom teachers’ acquisition of practical knowledge 41
Dr. Jan-Erik Romar (Åbo Akademi University)

Physical education: How to increase reflections in the social domain 42
Mr. Dag Ove Hovdal (University of Agder), Dr. Jan M Loftesnes (West Norway University of Applied Sciences)

Queer Affects in Physical Education 43
Mr. Dillon Landi (The University of Auckland)

Exploring Young People’s Experiences of PE: An Intersectional Approach 44
Ms. Ruth Brazier (Leeds Beckett University)

Families young people and health; intersecting racialization and social class 45
Prof. Symeon Dagkas (Canterbury Christ Church)

Power to the PEOple: Reconsidering how concepts of power are used in physical education scholarship 46
Dr. Dean Barker (University of Gothenburg), Dr. Pär Rylander (University of Gothenburg)

Leading professional associations in decentred market times: an Australian response 47
Dr. Sue Whatman (Griffith University), Prof. Dawn Penney (Edith Cowan University)

Physical Education Teacher Evaluation In Indiana Highly Reliant On The Principal’s Experience And Perception About The Subject 48
Dr. Sookhenlall Padaruth (Mauritius Institute of Education, Mauritius), Dr. Andrew Eberline (Ball State University, USA), Prof. Thomas Templin (University of Michigan, USA)

Pre-service teachers’ stories about their assessment experiences in Physical Education: How can we learn from these and improve our own assessment practices? 49
Mr. Ross Williams (Murdoch University)

A New Critical Pedagogy for Reforming Physical Education in Precarious Times 50
Prof. David Kirk (University of Strathclyde)

Health.edu – Sport-related health competence of pupils 51
Mrs. Katharina Ptack (Universität Bayreuth), Dr. Helmut Strobl (Universität Bayreuth), Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Susanne Tittlbach (Universität Bayreuth)
Health promotion interventions in sports clubs – a mapping review

Dr. Susanna Geidne (Örebro university), Dr. Aurelie Van Hoye (University of Lorraine)

The effects of “Keep the Balance” intervention programme

Dr. Renata Czarniecka (Józef Piłsudski University of Physical Education in Warsaw, Poland), Dr. Elżbieta Olszewska (Józef Piłsudski University of Physical Education in Warsaw, Poland), Prof. Jadwiga Charzewskia (National Food and Nutrition Institute, Warsaw, Poland), Prof. Michal Lenartowicz (Józef Piłsudski University of Physical Education in Warsaw, Poland)

Measuring sedentary and active behaviours in university students: The validity of the Italian version of the Simple Physical Activity Questionnaire

Prof. Attilio Carraro (University of Padua), Dr. Erica Gobbi (University of Padua)

Transformational Teaching: Do student teachers in Scotland have an effect on the pupils they teach?

Mr. Murray Craig (The University of Edinburgh), Dr. Paul McMillan (University of Edinburgh), Dr. Andrew Horrell (The University of Edinburgh), Prof. John Sproule (University of Edinburgh)

Responsive Teaching: A “Difficult Balance”?

Dr. Paul McMillan (University of Edinburgh)

‘Strategy as a pedagogic device’ – integrating learning about, through and in movement in senior PE.

Dr. Maree Dinan-Thompson (James Cook University)

Reflection: Issues with collaborative pedagogy

Mr. Harvey Anderson (Sheffield Hallam University)

“Learning to trust our peers has been so cool and important to me”: The development of learning communities in a Sport Education season

Dr. Carla Luguetti (University of Sao Paulo), Mrs. Priscila Lopes (University of Sao Paulo), Mr. Diego Sobrinho (University of Sao Paulo), Dr. Michele Carbinatto (University of Sao Paulo), Prof. Ann MacPhail (University of Limerick)

Students and teachers perceptions of an interschool Sport Education League for supporting transition between Primary and Secondary School

Dr. David Gutierrez-Diaz del Campo (University of Castilla-La Mancha), Dr. Luis M. García-López (University of Castilla-La Mancha), Mrs. Yessica Segovia-Domínguez (University of Castilla-La Mancha), Dr. David Sanchez-Mora Moreno (University of Castilla-La Mancha)

Sports-Based Positive Youth Development: Youth Outcomes and Parent Perceptions

Prof. Dawn Anderson-Butcher (The Ohio State University), Mr. John Provenzano (The Ohio State University)

The evolution and dissemination of game-centred-learning practice in Physical Education and sport coaching in New Zealand: A practitioner’s tale.

Mr. Dennis Slade (School of Sport, Exercise and Nutrition, College of Health, Massey University, Palmerston North.), Prof. Andrew Martin (School of Sport, Exercise and Nutrition, College of Health, Massey University, Palmerston North.), Dr. Geoffrey Watson (School of Humanities, Massey University, Palmerston North.)

The Environmental Associations of Children’s Outdoor Play

Dr. Arja Sääkslahti (University of Jyväskylä), Mrs. Donna Niemistö (University of Jyväskylä), Ms. Emmi Mäntylä (University of Jyväskylä), Dr. Arto Laukkanen (University of Jyväskylä), Prof. Taija Juutinen-finni (University of Jyväskylä)
How parents' perception in physical play influence the motor development of young children

Mr. ZIANG LI (University of Macau), Prof. Si Man Lei (University of Macau)

Experiencing Shame - Different types of students

Dr. David Wiesche (Ruhr-University Bochum)

‘Elite athlete to disabled athlete to talented adaptive athlete.’ How coaches and teachers can help support the road to recovery.

Dr. Kristy Howells (Canterbury Christ Church University)

Elite Youth Gaelic Footballers And Their Holistic Development: The Academy Experience

Mr. Brian Cuthbert (University College Cork), Dr. Fiona Chambers (University College Cork), Dr. Bryan Mccullick (University of Georgia)

Is physical education contributing to develop physically literate persons? Highlights from a pilot study with university students

Prof. João Martins (University of Lisbon), Prof. Marcos Onofre (University of Lisbon), Prof. António Rodrigues (University of Lisbon), Prof. Ana Quítério (University of Lisbon), Prof. Francisco Carreiro da Costa (Portuguese University of Humanities and Technologies)

Beyond policy: Disrupting the power of policy and knowledge production

Dr. McCuaig Louise (The University of Queensland), Dr. Eimear Enright (The University of Queensland), Prof. Doune Macdonald (The University of Queensland), Prof. David Kirk (University of Strathclyde), Dr. Richard Bowles (Mary Immaculate College)

School-Based Physical Activity Promotion: Examples from the United States, Ireland, the United Kingdom and Finland

Dr. Jaimie McMullen (University of Northern Colorado 1), Dr. Déirdre Ni Chróinín (Mary Immaculate College 2), Dr. Ash Routen (Loughborough University 3), Dr. Henna Haapala (LIKES Research Centre for Physical Activity and Health 4)

Learning to Mentor in Sports Coaching: A Design Thinking Approach

Dr. Fiona Chambers (University College Cork), Dr. Joao Costa (University College Cork), Prof. Marcos Onofre (University of Lisbon), Dr. Wesley O’Brien (University College Cork), Ms. Tandy Haughey (Ulster University)

A Connected Future for Primary Physical Education Teacher Education

Dr. Vicky Randall (University of Winchester), Dr. Emile Bojesen (University of Winchester), Ms. Julie Pearson (St Mary's University), Mrs. Emma Whewell (University of Northampton), Mrs. Annette Mclachlan (University of Brighton)

Understanding the ‘messy realities’ of teaching with technology in physical education

Mr. Murray Craig (The University of Edinburgh)

Digital technology and pedagogy in Physical Education teaching: Flipped learning as a strategy to optimise physical activity time.

Ms. Julia Sargent (Loughborough University), Dr. Ashley Casey (Loughborough University)

Pilot study: Mobile Application for quantitative observation and motor learning in hurdle running in physical education

Dr. Mitsuo Otsuka (Ritsumeikan University), Prof. Tadao Isaka (Ritsumeikan University), Prof. Akinori Nagano (Ritsumeikan University), Dr. Toshiyuki Kurihara (Ritsumeikan University), Prof. Satoshi Otomo (Ritsumeikan University)
The effect of a badminton teaching system using wearable technology  
*Dr. Kuo Chin Lin (National Sun Yat-sen University), Dr. I-ling Cheng (National Sun Yat-sen University), Mr. Wei-lun Chang (National Sun Yat-sen University), Mr. Yin-cheng Huang (National Sun Yat-sen University), Dr. Chun-wang Wei (Kaohsiung Medical University)*

Targetting the improvement of FMS in a school setting through the Youth-Physical Activity Towards Health (Y-PATH) intervention  
*Dr. Bronagh McGrane (Dublin City University), Dr. Sarahjane Belton (Dublin City University), Prof. Stuart Fairclough (Edge Hill University), Dr. Danielle Powell (Leeds Beckett University), Dr. Johann Issartel (Dublin City University)*

The Effectiveness of a multicomponent intervention aimed at improving preschoolers' fundamental movement skills and physical activity levels  
*Prof. Amy Ha (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Johan Y Y Ng (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Cecilia H S Chan (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Joni Zhang (Department of Sports Science and Physical Education, The Chinese University of Hong Kong)*

Game skills or fundamental movement skills for the promotion of physical activity outcomes among primary school children? Outcomes of a cross-sectional study  
*Dr. Andrew Miller (University of Newcastle), Dr. Narelle Eather (University of Newcastle), Dr. Nick Riley (University of Newcastle), Dr. Mitch Duncan (University of Newcastle)*

Construct and correlates of basic motor competencies in primary school-aged children in Luxembourg  
*Dr. Claude Scheuer (University of Luxembourg), Prof. Andreas Bund (University of Luxembourg), Dr. Christian Herrmann (University of Basel)*

A systematic review of the affective benefits of physical education and school sport for children and adolescents  
*Mr. Eishin Teraoka (University of Strathclyde), Prof. David Kirk (University of Strathclyde; University of Queensland), Ms. Heidi Jancer Ferreira (São Paulo State University (UNESP), Institute of Biosciences, Rio Claro; Federal Institute of South of Minas Gerais (IFSULDEMINAS), Poços de Caldas, Brazil), Dr. Farid Bardid (University of Strathclyde; Ghent University)*

Understanding the teaching and learning of social and emotional competencies in physical education  
*Prof. Paul Wright (Northern Illinois University), Dr. Shirley Gray (University of Edinburgh)*

“I just wasn’t good enough”; selection and self-validation in curricular sports programmes in Scotland  
*Dr. Jennifer Treacy (University of Edinburgh)*

The Value of Belonging and Coach Expectations and Support in Promoting Youth Outcomes  
*Prof. Dawn Anderson-Butcher (The Ohio State University), Mr. John Provenzano (The Ohio State University), Dr. Anthony Amorose (Illinois State University)*

“It feels like time is stopping” – Students’ embodied experiences  
*Dr. Tiina Kujala (University of Tampere), Dr. Maarit Marttila (Tampere)*

Lessons from the field: The transformative potential of occupational movements to shape physical education  
*Dr. Karen Lambert (Monash University)*
What is normal? Conflicting interpretations of the body in contemporary Physical Education
Dr. Sebastian Ruin (German Sport University Cologne)

Understanding two teachers’ professional learning experiences using TPSR in secondary school PE
Dr. Shirley Gray (University of Edinburgh), Prof. Paul Wright (Northern Illinois University)

Student perceptions of integrating technology and homework into physical education
Dr. Risto Marttinen (California State University, Fullerton), Dr. David Daum (San Jose State University), Mr. Joshua Santiago (California State University, Fullerton), Dr. Stephen Silverman (Teachers College Columbia University)

Why are some adolescents physically active and others still inactive? A mixed-methods study
Prof. João Martins (Laboratório de Pedagogia, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa, Lisboa, Portugal & Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal)

German sportschools: Dual careers, chronic stress and protective resources – A three years longitudinal study comparing two different models
Ms. Jennifer Breithecker (University of Augsburg), Dr. Miriam Kehne (University of Paderborn), Prof. Hans Peter Brandl-Bredenbeck (University of Augsburg)

“The ‘project’ changed my life”: a retrospective analysis of Sport Education’s transformative potential
Dr. Cláudio Farias (Faculty of Sport, University of Porto), Prof. Isabel Mesquita (Faculty of Sport, University of Porto), Prof. Peter Hastie (Auburn University)

Reflection and Reflective Practice in a High-Performance Sports Coaching Context: Understanding and Impact.
Ms. Lauren Downham (Loughborough University), Prof. Christopher Cushion (Loughborough University)

The Challenge to Care in an Uncaring Football World
Dr. Colum Cronin (Liverpool John Moores University), Dr. Amy Whitehead (Liverpool John Moores University), Prof. Zoe Knowles (Liverpool John Moores University), Dr. Kevin Enright (Liverpool John Moores University)

Elite Sports Coaches, Professional Knowledge, And Negotiated Participation Within Multiple Communities
Dr. Simon Phelan (Oxford Brookes University), Dr. Mark Griffiths (University of Birmingham)

Coaches’ dispositions towards non-formal learning situations: An analysis of the ‘Coach Talent Programme’.
Mr. Tom Leeder (University of East Anglia), Dr. Victoria Warburton (University of East Anglia), Dr. Lee Beaumont (University of East Anglia)

Engaging with academic and institutional changes: two Physical Education and Sport Pedagogy case studies
Prof. Ann MacPhail (University of Limerick), Dr. Lee Schaefer (McGill), Prof. Hal Lawson (University at Albany, SUNY)

Conceptualising examinable physical education in the Irish context: the development of Leaving Certificate Physical Education
Mr. Dylan Scanlon (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderón (University of Limerick)
Quality by Design: Research-based enhancement of swimming and water safety teacher training.
Prof. Dawn Penney (Edith Cowan University), Ms. Jennifer Schembri-Portelli (AUSTSWIM), Mr. Craig Halliday (AUSTSWIM)

Elementary school children's physical activity during supervised intramurals as a function of a parkour unit in PE
Ms. Rosalie Coolkens (Physical Activity, Sport and Health Research Group, KU Leuven), Dr. Phillip Ward (The Ohio State University), Prof. Jan Seghers (Physical Activity, Sport and Health Research Group, KU Leuven), Prof. Peter Iserbyt (Physical Activity, Sport and Health Research Group, KU Leuven)

‘I would have loved it’: Experiences, practice and perspectives of primary teachers related to physical education
Dr. Frances Murphy (Institute of Education, Dublin City University, Ireland)

The empowering role of critical thinking in motor competency development in high quality primary physical education
Dr. Alison Murray (University of Roehampton), Prof. David Kirk (University of Strathclyde), Mr. George Woods (University of Texas-Corpus Christi), Dr. Bhavin Patel (Citimedical NYC), Mr. Emerick Kaitell (University of Roehampton)

Redesigning Physical Education to Achieve Better Outcomes: International Exemplars (PART 1)
Prof. Hal Lawson (University at Albany, SUNY), Prof. Thomas Templin (University of Michigan), Dr. Eimear Enright (The University of Queensland), Dr. Tim Fletcher (Brock University), Prof. Ann MacPhail (University of Limerick)

Phenomenology, embodiment and physical education
Dr. Steven Stolz (La Trobe University), Dr. Malcolm Thorburn (University of Edinburgh), Dr. Jonas Holst (San Jorge University)

Early Years Symposium: Physical curiosity, physical development and early movement learning experiences.
Dr. Kristy Howells (Canterbury Christ Church University), Dr. Arja Sääkslahti (University of Jyväskylä), Dr. Boris Jidovtseff (Research Unit on Childhood, Department of Sport and Rehabilitation Sciences, Liège University, Belgium), Dr. Debra Vinci (University of West Florida), Prof. Ingunn Fjørtoft (University College of Southeast Norway)

The role of the socio-ecological factors on children’s and adolescents’ physical activity: results of the LIITU study.
Mrs. Anette Mehtälä (University of Jyväskylä, Faculty of Sport and Health Sciences), Mr. Jari Villberg (University of Jyväskylä, Faculty of Sport and Health Sciences), Mrs. Katarina Kämppi (LIKES Research Centre for Physical Activity and Health), Dr. Sami Kokko (University of Jyväskylä, Faculty of Sport and Health Sciences)

Implementing an activist prototype pedagogical model of sport for working with youth from socially vulnerable backgrounds: Testing the strength of the critical elements
Dr. Carla Luguetti (University of Sao Paulo), Prof. Kimberly Oliver (New Mexico State University)

Accessibility of gymnasia – Development and piloting of an assessment instrument to identify barriers of physical spaces
Dr. Jonas Wibowo (University of Hamburg), Mr. Frederik Bükers (University of Hamburg)

How does PE change when becoming inclusive? Empirical indications concerning the view of PE teachers
Dr. Anne Rischke (University of Paderborn), Prof. Sabine Reuker (University of Paderborn)
Representations of Chinese gendered and racialised bodies in contemporary media sites
Dr. Bonnie Pang (Western Sydney University), Dr. Joanne Hill (University of Bedfordshire)

School pupils negotiating the blurred boundaries between online and offline social contexts: implications for bodily perceptions and practices.
Dr. Sarah MacIsaac (University of Edinburgh), Dr. John Kelly (University of Edinburgh), Dr. Shirley Gray (University of Edinburgh)

A disrupted landscape for participating in youth club sport – a study of changes in sport and leisure time activities
Dr. Britta Thedin Jakobsson (The Swedish School of Health and Sport Sciences), Dr. Suzanne Lundvall (The Swedish School of Health and Sport Sciences)

Being a “fit girl” in social media: discourses around femininity and the healthy lifestyles of young girls
Dr. Maria José Camacho-Miñano (University Complutense of Madrid)

Same, same but different - New learning and teaching tools for preparing pre-service teachers in inclusive physical education
Ms. Teresa Odipo (German Sport University Cologne), Prof. Thomas Abel (German Sport University Cologne)

Digital technology-based learning activities in physical education teacher education: Looking at students’ motivational levels and academic achievement
Dr. Antonio Calderón (University of Limerick), Dr. Lourdes Meroño (UCAM Catholic University of Murcia)

Transformative pedagogical practices, teacher educators could employ, to affect the perspectives and practices of preservice teachers.
Ms. Shrehan Lynch (University of Alabama)

Investigating Teaching Quality of Generalist Pre-service Teachers in Physical Education
Mrs. Irene Polemitou (University of Cyprus), Dr. Ermis Kyriakides (University of Cyprus), Prof. Niki Tsangaridou (University of Cyprus), Dr. Charalambos Charalambous (University of Cyprus)

Exploring touch in Primary Physical Education practicum
Dr. Lucio Martínez-Alvarez (University of Valladolid), Dr. Valeria Varea (University of New England), Dr. Gustavo Gonzalez-Calvo (University of Valladolid)

Using the features of meaningful experiences to guide elementary physical education practice
Ms. Stephanie Beni (Brock University), Dr. Tim Fletcher (Brock University), Dr. Déirdre Ni Chróinín (Mary Immaculate College)

The Development and Initial Validation of the Teaching Multiple School Subjects Role Conflict Scale (TMSS-RCS)
Ms. Cassandra Iannucci (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Kevin Richards (The University of Alabama)

Curriculum for excellence: Physical education, physical activity and sport
Ms. Suzanne Hargreaves (Education Scotland)

‘It’s just what we do!’ - Physical Educators views on preparedness to deliver Health and Wellbeing
Ms. Elaine McCulloch (University of the West of Scotland)

Blended Learning Experiences of Dual Career Students in PETE
Dr. Kıvanç Semiz (Giresun University)
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconceptualising Pedagogical Content Knowledge in Physical Education Teacher Education.</td>
<td>124</td>
</tr>
<tr>
<td><em>Dr. Erik Backman (Dalarna university), Dr. Dean Barker (University of Gothenburg), Dr. Pär Rylander (University of Gothenburg)</em></td>
<td></td>
</tr>
<tr>
<td>Challenges and Opportunities for enhancing PETE programmes through Digitally-Based Design Thinking</td>
<td>125</td>
</tr>
<tr>
<td><em>Dr. Joao Costa (University College Cork), Dr. Fiona Chambers (University College Cork), Prof. Marcos Onofre (University of Lisbon), Prof. João Martins (Faculdade de Motricidade Humana (Universidade de Lisboa) e Faculdade de Educação Física e Desporto (Universidade Lusófona de Humanidades e Tecnologias))</em></td>
<td></td>
</tr>
<tr>
<td>The impact of field-based Physical Education methods course on pre-service teachers’ beliefs toward curricular outcomes</td>
<td>126</td>
</tr>
<tr>
<td><em>Dr. Manolis Adamakis (School of Education, University College Cork)</em></td>
<td></td>
</tr>
<tr>
<td>Professional learning needs of physical education teacher educators in China</td>
<td>127</td>
</tr>
<tr>
<td><em>Ms. Yueying Gong (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Ainat Guberman (The MOFET Institute)</em></td>
<td></td>
</tr>
<tr>
<td>Beyond Bricks and Mortar: A Qualitative Examination of the Factors Influencing Diffusion of an Innovative PETE Graduate Program</td>
<td>128</td>
</tr>
<tr>
<td><em>Dr. Andrew Eberline (Ball State University), Dr. Emily Jones (Illinois State University), Mr. Robert Knipe (University of Texas)</em></td>
<td></td>
</tr>
<tr>
<td>Application of research literature in Physical Education Teacher Education</td>
<td>129</td>
</tr>
<tr>
<td><em>Mrs. Annemari Svendsen (University of Southern Denmark)</em></td>
<td></td>
</tr>
<tr>
<td>Youth-Physical Activity Towards Health (Y-PATH) Physical Education: Meeting the needs of Irish teachers and students in second-level schools</td>
<td>130</td>
</tr>
<tr>
<td><em>Dr. Sarahjane Belton (Dublin City University), Dr. Wesley O’Brien (University College Cork), Dr. Sarah Meegan (School of Health and Human Performance, Dublin City University, Ireland), Dr. Johann Issartel (Dublin City University), Ms. Holly Clarke (Dublin City University)</em></td>
<td></td>
</tr>
<tr>
<td>Exploring Pre-service teachers’ use of a drone to analyze game performance in a TGfU Games Course</td>
<td>131</td>
</tr>
<tr>
<td><em>Dr. Deborah Sheehy (Bridgewater State University), Dr. Misti Neutzling (Bridgewater State University), Dr. Karen Richardson (Bridgewater State University), Dr. Heidi Bohler (Westfield State University)</em></td>
<td></td>
</tr>
<tr>
<td>Examining the efficacy of the tasks framed by the stages of game development on upper elementary students’ learning in tennis</td>
<td>132</td>
</tr>
<tr>
<td><em>Dr. Emi Tsuda (West Virginia University), Dr. Phillip Ward (The Ohio State University), Prof. Jacqueline Goodway (The Ohio State University), Dr. Erim Erhan (Ataturk University)</em></td>
<td></td>
</tr>
<tr>
<td>Research Project for school sport development from a fair play, social justice and gender-based approach</td>
<td>133</td>
</tr>
<tr>
<td><em>Dr. Pere Molina (Universitat de València), Dr. Alejandro Martínez-Baena (Universitat de València), Dr. Javier Valenciano (Universidad de Castilla-La Mancha), Mr. Joan Úbeda-Colomer (Universitat de València), Dr. Miguel Villamón (Universitat de València)</em></td>
<td></td>
</tr>
<tr>
<td>Coaches as teachers: the case of Physical Education</td>
<td>134</td>
</tr>
<tr>
<td><em>Ms. Jessica Mangione (University of Limerick), Dr. Melissa Parker (University of Limerick), Prof. Mary O’Sullivan (University of Limerick)</em></td>
<td></td>
</tr>
<tr>
<td>Physical Education and School Sport in Denmark: New pathways and possibilities</td>
<td>135</td>
</tr>
<tr>
<td><em>Ms. Danielle Nørager Johansen (University of Southern Denmark), Mr. Thomas Skovgaard (University of Southern Denmark)</em></td>
<td></td>
</tr>
</tbody>
</table>
A comparative study on the physical education teacher education program between the United States and Taiwan
Dr. Feng-min Wei (National Taiwan Normal University), Dr. DENG-YAU SHY (National Taiwan Normal University)

A review of the evidence and practices supporting the UNESCO Kazan Action Plan for Quality Physical Education
Dr. Dean Dudley (Macquarie University), Prof. Aaron Beighle (University of Kentucky), Dr. Lee Schaefer (McGill University), Prof. John Cairney (University of Toronto), Mr. Andy Vasily (The KAUST School)

Physical Education Teachers and Pedagogical Content Knowledge: An International Cross Overview
Prof. Cecilia Borges (University of Montreal), Dr. Stefan Meier (German Sport University Cologne), Prof. Jayne Jenkins (University of Wyoming), Prof. Peter Iserbyt (KU Leuven)

Identifying and Motivating students who mostly need Physical ACTivity through Physical Education: Launching the European “IMPACT-PE” project
Prof. Athanasios Papaioannou (University of Thessaly), Prof. Attilio Carraro (University of Padua), Prof. Philippe Sarrazin (University of Grenoble Alps), Dr. Claude Scheuer (European Physical Education Association)

Body dissatisfaction in physical education –Perspectives on relevance and didactical decisions
Prof. Elke Grimminger-Seidensticker (TU Dortmund University), Prof. David Kirk (University of Strathclyde, University of Queensland), Dr. Charlotte Kerner (University of Brunel), Mrs. Johanna Korte (TU Dortmund University), Mrs. Aiko Möhwald (TU Dortmund University)

International Service Learning: Theoretical, Practical, and Cultural implications
Dr. Stefan Ward (Central Washington University), Dr. Erica Pratt (State University of New York at Cortland), Dr. Michael Hemphill (University of North Carolina at Greensboro), Dr. Risto Marttinen (California State University, Fullerton), Dr. Kevin Richards (The University of Alabama)

Transfer from Physical Education to Intramural Physical Activities: Towards the adoption of a physically active lifestyle
Prof. Peter Iserbyt (KU Leuven), Prof. Tristan Wallhead (University of Wyoming), Ms. Hannelore Drijvers (KU Leuven), Ms. Rosalie Coolkens (KU Leuven)

Support for Movement in School: Considering Perspectives from Multiple Stakeholders
Dr. Jaimie McMullen (University of Northern Colorado), Dr. Katie Hodgin (University of Northern Colorado), Dr. Jennifer Krause (University of Northern Colorado), Prof. Russell Carson (University of Northern Colorado)

Feasibility study of a physical activity intervention based on the social ecological model
Prof. Amy Ha (The Chinese University of Hong Kong), Dr. Johan Y Y Ng (The Chinese University of Hong Kong), Dr. Joni Zhang (The Chinese University of Hong Kong), Dr. Cecilia H S Chan (The Chinese University of Hong Kong)

Pupils' Views of Comprehensive Whole-of-School Physical Activity Programming
Dr. Pamela Kulinna (Arizona State University), Ms. Shannon Mulhearn (Arizona State University), Mr. Henry Yu (Arizona State University), Ms. Janelle Griffo (Arizona State University), Dr. Timothy Brusseau (University of Utah)

Effects of a water safety intervention in the Netherlands
Prof. Kristine De Martelaer (Vrije Universiteit Brussel and Utrecht University), Ms. Judith Van Driel (Universiteit Utrecht), Dr. Farid Bardid (University of Strathclyde, Ghent University), Prof. Joost Bierens (Vrije Universiteit Brussel)
From Doctoral Study to Scholarly Professional Practice
Dr. Diane Gill (University of North Carolina at Greensboro), Dr. Erin Reifsteck (University of North Carolina at Greensboro), Dr. Michael Hemphill (University of North Carolina at Greensboro), Dr. PAM BROWN (University of North Carolina at Greensboro)

Physical education pre-service teachers’ perceptions of the subject and profession - development during the professional socialization
Dr. Magnus Ferry (Umeå University)

Sport Education in Community-based programmes: a research on social workers implementation
Dr. Luis M. García-López (University of Castilla-La Mancha), Dr. David Gutierrez-Diaz del Campo (University of Castilla-La Mancha), Dr. Jaime Serra-Olivares (University of Castilla-La Mancha)

Effects of a 6-Month Coaching-Program on Pedagogical Quality for Sports Coaches
Prof. Alfred Richartz (University of Hamburg), Ms. Kathrin Kohake (University of Hamburg)

Heterogeneity in Physical Education – most important differences among students and teachers’ support needs to deal with them
Dr. Ingo Wagner (German Sport University Cologne), Ms. Fabienne Bartsch (German Sport University Cologne), Dr. Bettina Rulofs (German Sport University Cologne)

Teaching heterogeneous P.E. classes – challenges, problems and benefits
Mrs. Helga Leineweber (German Sports University Cologne)

Individual support of student athletes in physical education – Dealing with motivational conflicts
Ms. Kathrin Weiß (Augsburg), Prof. Hans Peter Brandl-Bredenbeck (Augsburg), Ms. Lena Kroll (Augsburg), Ms. Jennifer Breithecker (Augsburg)

Thinking while Moving: Using the RE-Aim framework to evaluate the effectiveness of teacher professional learning
Dr. Nick Riley (University of Newcastle), Prof. Philip Morgan (University of Newcastle), Prof. David Lubans (University of Newcastle), Dr. Myrto Mavilidi (University of Newcastle)

Physical Literacy Praxis: A case study in an urban high school
Dr. Douglas Gleddie (University of Alberta), Mr. Andrew Morgan (University of Alberta), Dr. Lauren Sulz (University of Alberta)

Physical Literacy (Mis)understandings: What do Leading Physical Education Teachers Know about Physical Literacy?
Dr. Daniel Robinson (St. Francis Xavier University), Dr. Lynn Randall (University of New Brunswick), Dr. Joe Barrett (Brock University)

The challenges of measuring physical literacy
Dr. Billy Harvey (McGill University)

Developing and supporting physical literacy in the Foundation Phase in Wales- a sustainable cross sector approach.
Dr. Nalda Wainwright (University of Wales Trinity Saint David), Prof. Jacqueline Goodway (The Ohio State University), Ms. Amanda John (University of Wales Trinity Saint David), Ms. Kirsty Edwards (Wales Institute for Physical Literacy)
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing Professional Development through a learning community in</td>
<td>159</td>
</tr>
<tr>
<td>a full-time Brazilian school</td>
<td></td>
</tr>
<tr>
<td>Ms. Luiza Goncalves (University of Sao Paulo), Dr. Carla Luguetti</td>
<td></td>
</tr>
<tr>
<td>(University of Sao Paulo), Dr. Michele Carbinatto (University of</td>
<td></td>
</tr>
<tr>
<td>Sao Paulo), Dr. Melissa Parker (University of Limerick)</td>
<td></td>
</tr>
<tr>
<td>Lesson Study: A Novel Approach to PE Teachers’ Professional</td>
<td>160</td>
</tr>
<tr>
<td>Development</td>
<td></td>
</tr>
<tr>
<td>Dr. Menno Slingerland (Fontys University of Applied Sciences), Ms.</td>
<td></td>
</tr>
<tr>
<td>Bregje van Dijk-van Eijck (Fontys University of Applied Sciences),</td>
<td></td>
</tr>
<tr>
<td>Prof. Leen Haerens (Ghent University), Dr. Lars Borghouts (Fontys</td>
<td></td>
</tr>
<tr>
<td>University of Applied Sciences)</td>
<td></td>
</tr>
<tr>
<td>Tracking primary generalist teachers who completed the inaugural</td>
<td>161</td>
</tr>
<tr>
<td>specialism in physical education - their observations, thoughts and</td>
<td></td>
</tr>
<tr>
<td>experiences.</td>
<td></td>
</tr>
<tr>
<td>Dr. Maura Coulter (Institute of Education, Dublin City University,</td>
<td></td>
</tr>
<tr>
<td>Ireland), Ms. Susan Marron (Institute of Education, Dublin City</td>
<td></td>
</tr>
<tr>
<td>University, Ireland)</td>
<td></td>
</tr>
<tr>
<td>Models-Based Practices: Problematizing the M and the P in MBP</td>
<td>162</td>
</tr>
<tr>
<td>Dr. Ashley Casey (Loughborough University), Prof. Hakan Larsson (GIH)</td>
<td></td>
</tr>
<tr>
<td>, Prof. Ann MacPhail (University of Limerick), Prof. Mikael</td>
<td></td>
</tr>
<tr>
<td>Quennerstedt (Örebro university)</td>
<td></td>
</tr>
<tr>
<td>An investigation of the relationship between physical activity</td>
<td>163</td>
</tr>
<tr>
<td>parenting practices and child physical activity behaviours in</td>
<td></td>
</tr>
<tr>
<td>Ireland.</td>
<td></td>
</tr>
<tr>
<td>Ms. Rhoda Sohun (University of Limerick), Prof. Ann MacPhail</td>
<td></td>
</tr>
<tr>
<td>(University of Limerick), Dr. Ciarán MacDonncha (University of</td>
<td></td>
</tr>
<tr>
<td>Limerick)</td>
<td></td>
</tr>
<tr>
<td>Does movement ability in adolescence matter in young adulthood? A</td>
<td>164</td>
</tr>
<tr>
<td>longitudinal study of “taste for sport and physical activity”.</td>
<td></td>
</tr>
<tr>
<td>Dr. Anna Tidén (The Swedish School of Sport and Health Sciences), Dr.</td>
<td></td>
</tr>
<tr>
<td>Gunilla Brun Sundblad (The Swedish School of Sport and Health</td>
<td></td>
</tr>
<tr>
<td>Sciences), Dr. Suzanne Lundvall (The Swedish School of Sport and</td>
<td></td>
</tr>
<tr>
<td>Health Sciences)</td>
<td></td>
</tr>
<tr>
<td>Does sports club participation contribute to physical activity among</td>
<td>165</td>
</tr>
<tr>
<td>children and adolescents? A comparison across six European</td>
<td></td>
</tr>
<tr>
<td>countries</td>
<td></td>
</tr>
<tr>
<td>Dr. Sami Kokko (University of Jyväskylä, Faculty of Sport and</td>
<td></td>
</tr>
<tr>
<td>Health Sciences), Dr. Susanna Geidne (Örebro university)</td>
<td></td>
</tr>
<tr>
<td>Social disparities in adolescents’ physical activity - direct and</td>
<td>166</td>
</tr>
<tr>
<td>indirect paths to explain the social heritage of physical (in-)</td>
<td></td>
</tr>
<tr>
<td>activity</td>
<td></td>
</tr>
<tr>
<td>Mr. Johannes Vollmer (Albert-Ludwigs-Universität Freiburg), Prof.</td>
<td></td>
</tr>
<tr>
<td>Petra Giess-Stueber (Albert-Ludwigs-Universität Freiburg)</td>
<td></td>
</tr>
<tr>
<td>Implementing comprehensive school physical activity programs in</td>
<td>167</td>
</tr>
<tr>
<td>urban under-resourced schools</td>
<td></td>
</tr>
<tr>
<td>Dr. Sarah Doolittle (Adelphi University)</td>
<td></td>
</tr>
<tr>
<td>Child, family and environmental correlates of physical activity</td>
<td>168</td>
</tr>
<tr>
<td>parenting: The Skilled Kids – study.</td>
<td></td>
</tr>
<tr>
<td>Dr. Arto Laukkanen (University of Jyväskylä), Mrs. Donna Niemistö</td>
<td></td>
</tr>
<tr>
<td>(University of Jyväskylä), Prof. Taija Jutilinen (University of</td>
<td></td>
</tr>
<tr>
<td>Jyväskylä), Prof. Marja Cantell (University of Groeningen), Dr.</td>
<td></td>
</tr>
<tr>
<td>Arja Sääkslahti (University of Jyväskylä)</td>
<td></td>
</tr>
<tr>
<td>‘We don’t receive information on pupils in care”': Beginning to</td>
<td>169</td>
</tr>
<tr>
<td>understand care experienced young people's (dis)engagement with</td>
<td></td>
</tr>
<tr>
<td>physical education</td>
<td></td>
</tr>
<tr>
<td>Dr. Thomas Quarmby (Leeds Beckett University)</td>
<td></td>
</tr>
<tr>
<td>The Role of Character in Talent Identification and Development</td>
<td>170</td>
</tr>
<tr>
<td>Mr. Ryan Rosevear (University of Otago), Prof. Tania Cassidy (</td>
<td></td>
</tr>
<tr>
<td>University of Otago)</td>
<td></td>
</tr>
</tbody>
</table>
Redesigning Physical Education to Achieve Better Outcomes: International Exemplars (Part 2) 171
Prof. Hal Lawson (University at Albany, SUNY), Prof. Thomas Templin (University of Alabama), Dr. Caterina Pesce (University of Rome “Foro Italico”), Dr. Ben Dyson (The University of Auckland), Prof. David Kirk (University of Strathclyde)

Mapping complexity perspectives on PE pedagogy: Developing a post-behaviourist paradigm 172
Dr. Tim Hopper (University of Victoria), Dr. Alan Ovens (The University of Auckland), Dr. Nicola Carse (University of Edinburgh), Dr. Jesse Rhoades (University of North Dakota)

Curriculum enactment in physical education a case of reinterpreting policy and pragmatic innovation 173
Dr. Andrew Horrell (University of Edinburgh)

Teachers perceptions about physical education: a typology 174
Prof. Lucia Gomes (Portuguese University of Humanities and Technologies), Prof. Madalena Ramos (University Institute of Lisbon), Prof. Joana Claro (Portuguese University of Humanities and Technologies), Prof. João Martins (University of Lisbon), Prof. Francisco Carreiro da Costa (Portuguese University of Humanities and Technologies)

Preschool teachers' attitudes and perceived competence to promote physical activity and motor learning 175
Dr. Ann-Christin Sollerhed (Kristianstad University), Dr. Jan-Eric Ekberg (Malmö University)

Educative purposes, learning and new participation pathways for health and physical education 176
Dr. Justen O'Connor (Monash University), Prof. Dawn Penney (Edith Cowan University)

The Effects of a Physical Literacy and Physical Education Professional Development Intervention with Welsh- Medium Year Six (10 – 11 years old) Primary School Teachers on Pupils' Physical Literacy 177
Ms. Lowri Edwards (Swansea University), Dr. Anna Bryant (Cardiff Metropolitan University), Dr. Kevin Morgan (Cardiff Metropolitan University), Dr. Anwen Jones (Cardiff Metropolitan University), Dr. Stephen-Mark Cooper (Cardiff Metropolitan University)

Primary pre-service teachers’ use of assessment strategies while on school placement 178
Ms. Suzy Macken (Marino Institute of Education), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderón (University of Limerick)

The Effects of a Collaborative CPD Programme on Teachers’ Knowledge and Understanding of Physical Literacy and their PE pedagogy in Primary PE 179
Dr. Kevin Morgan (Cardiff Metropolitan University), Dr. Anna Bryant (Cardiff Metropolitan University), Ms. Lowri Edwards (Swansea University), Mrs. Emma Mitchell-Williams (Brynhaifren Comprehensive School)

The role of digital technology in the assessment of children's movement competence during primary school Physical Education lessons 180
Mr. David Morley (Sheffield Hallam University), Mr. Tom Van Rossum (Sheffield Hallam University)

Competence-based Coach Education in Germany - between Demands and Reality 181
Mr. Raphael Ptack (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg)

Sports coaching education policies from Italy, the Netherlands, Poland, Turkey, and the UK: Challenges for athletes with disabilities in becoming sports coaches 182
Mr. Özgür Yaşar Akyar (Hacettepe University), Prof. Gyasettin Demirhan (Hacettepe University)

Releasing the coaching imagination 183
Dr. Colum Cronin (Liverpool John Moores University)
Profiling Secondary School Students’ Motivation for PE

Ms. Gwen Weeldenburg (Fontys University of Applied Sciences), Dr. Lars Borghouts (Fontys University of Applied Sciences), Dr. Menno Slingerland (Fontys University of Applied Sciences), Prof. Steven Vos (Fontys University of Applied Sciences)

Learning Environments In Physical Education And The Motivation In The Early Childhood

Dr. Andrea Hernández-Martínez (Universidad de Castilla-La Mancha), Dr. Irene González-Martí (UNIVERSIDAD CASTILLA-LA MANCHA), Ms. Pilar León González (Universidad de Castilla-La Mancha), Dr. Juan Gregorio Fernández-Bustos (Universidad)

Understanding teachers’ motivation for using physical activity in teaching from a self-determination perspective: Results from a mixed methods study.

Ms. Louise Stjerne Knudsen (University of Southern Denmark), Mr. Thomas Skovgaard (University of Southern Denmark), Mr. Thomas Bredahl (University of Southern Denmark)

The motivational effects of the Singapore’s national steps challenge: How long can it last?

Dr. Lit Khoon Zason Chian (National Institute of Education, Nanyang Technological University), Mr. Fahmi Sahar (National Institute of Education, Nanyang Technological University)

Determining the emotional profile of high-school students: a key to improve physical engagement?

Dr. Christophe Schnitzler (University of Lille 2), Dr. François Potdevin (University of Lille 2), Dr. Mary Schirrer (University of Lorraine), Prof. Yvonne Delevoy (University of Lille 1)

The impact of the outsourcing of Health and Physical Education on curriculum, pedagogy, and assessment

Ms. Leigh Sperka (The University of Queensland)

Coaching and teaching the millennial: Keys to mutual survival

Dr. Craig Stewart (Montana State University-Bozeman)

A Test of Common Content Knowledge for Gymnastics: A Rasch Analysis

Dr. Fatih Dervent (Marmara University), Dr. erhan devrilmez (Karamanoglu Mehmetbey Universitesi), Dr. Mustafa Levent Ince (Middle East Technical University), Dr. Phillip Ward (The Ohio State University)

Utilising the Bioecological Model to analyse differing classroom ecologies within one Physical Education subject department

Dr. Joao Costa (University College Cork), Prof. Ann MacPhail (University of Limerick), Dr. Maria Martins (University of Lisbon), Prof. Marcos Onofre (University of Lisbon)

Landscape of Secondary Physical Education Teachers’ Professional Development in South Korea

Prof. Okseon Lee (Seoul National University), Dr. Euichang Choi (Seoul National University), Mr. Hyukjun Son (Seoul National University), Mr. Hyunsoo Jung (Seoul National University), Dr. Mark Griffiths (University of Birmingham)

To be or not to be? That is the question: A narrative inquiry into the experiences of a young Physical Education teacher-researcher.

Mr. Vincent Coleman (University of Edinburgh)

A Narrative Inquiry into pre-service PHETE student’s advocacy for social justice

Dr. Lee Schaefer (McGill University), Dr. Douglas Gleddie (University of Alberta), Mrs. Hayley Morrison (University of Alberta), Mrs. Lauren Hennig (McGill University)
Picture this! Using drawings to explore pupils' conceptions of ‘health’
Mr. Oliver Hooper (Loughborough University), Dr. Jo Harris (Loughborough University), Dr. Lorraine Cale (Loughborough University)

CREATEing Research with Children and Young People: Values, Voice and Ethics
Dr. Fiona Chambers (University College Cork), Dr. Rachel Sandford (Loughborough University), Dr. Lee Schaefer (McGill University), Dr. Joanne Moles (University of Limerick), Mr. Oliver Hooper (Loughborough University)

Exploring Social Justice Issues in Physical Education Teacher Education
Dr. Jennifer Walton-Fisette (Kent State University), Dr. Sue Sutherland (Ohio State University), Dr. Joanne Hill (University of Bedfordshire), Dr. Eimear Enright (The University of Queensland), Dr. Louise McCuaig (The University of Queensland)

Monitoring the Quality of Physical Education: EuPEO, a ongoing Project from the European Physical Education Association
Prof. Marcos Onofre (University of Lisbon), Dr. Joao Costa (University College), Prof. Roland Naul (University of Münster), Dr. Claude Scheuer (European Physical Education Association), Prof. Mary O’Sullivan (University of Limerick)

Lesson Study as Professional Learning in Primary Physical Education
Dr. Seiichiro Kihara (Hiroshima University), Dr. Nan Lin (Zhejiang University), Dr. Gro Næsheim-Bjørkvik (University of Stavanger), Dr. Mike Jess (The University of Edinburgh), Dr. Paul McMillan (The University of Edinburgh)

Connecting Contemporary Frameworks for Physical Education
Dr. Justen O’Connor (Monash University), Dr. Mike Jess (University of Edinburgh)

Religion as an other(ed) identity within physical education: A scoping review of relevant literature and suggestions for practice and inquiry
Dr. Daniel Robinson (St. Francis Xavier University)

School versus club sport: Institutional consequences of school-centred elite sports development
Dr. Seung-back Han (Pai Chai University), Ms. Yoon Jin Kim (University of Otago), Mr. Minhyeok Tak (University of Otago)

Teacher Educator’s and Pre-Service Teachers’ Experiences of Collectively Experiencing Action Research within a Physical Education Teacher Education Programme
Dr. Deniz Hunuk (Pamukkale University), Prof. Ann MacPhail (University of Limerick)

Teaching Primary Physical Education...beginning the journey
Dr. Maura Coulter (Institute of Education, Dublin City University, Ireland), Ms. Susan Marron (Institute of Education, Dublin City University, Ireland), Dr. Frances Murphy (Institute of Education, Dublin City University, Ireland)

Are you ready? Physical readiness is there a mismatch in understanding and knowledge?
Dr. Kristy Howells (Canterbury Christ Church University)

Policy on classroom teachers’ continuing professional development for teaching physical education in Taiwanese primary school
Dr. CHINGWEI CHANG (National Taiwan Normal University Department of Physical Education), Dr. DENG-YAU SHY (National Taiwan Normal University), Prof. Ching Ping Lin (National Taiwan Normal University/Department of Physical Education), Mrs. CAI-LING WU (National Taiwan Normal University)
Developing a pedagogical model for ‘slow adventure and friluftsliv’ in physical education
Mr. Kristian Abelsen (Norwegian School of Sport Sciences), Dr. Petter Leirhaug (Western Norway University of Applied Sciences)

Special School Physical Education Teachers: Reflections on their Teacher Education
Dr. Anthony Maher (Edge Hill University), Dr. Hayley Fitzgerald (Leeds Beckett University)

Socialization From Professional Practice to Scholarly Professionals
Dr. Michael Hemphill (University of North Carolina at Greensboro), Dr. Pam Brown (University of North Carolina at Greensboro), Dr. Erin Reifsteck (University of North Carolina at Greensboro), Dr. Diane Gill (University of North Carolina at Greensboro)

Long-term development of game-play decision-making, efficiency and efficacy: combining Sport Education-Tactical Games across three consecutive invasion games units
Dr. Cláudio Farias (Faculty of Sport, University of Porto), Prof. Isabel Mesquita (Faculty of Sport, University of Porto), Prof. Peter Hastie (Auburn University)

Motor learning processes as domain-specific resources for professional learning in Physical Education Teacher Education
Ms. Verena Oesterhelt (University of Salzburg)

Exploring present moment awareness through movement: A diary study of participants’ experiences of a 10-week free improvised dance intervention
Dr. Mattias Johansson (Örebro university), Dr. Therése Skoog (University of Gothenburg), Dr. Carolina Lunde (University of Gothenburg)

Physical Education from the Perspective of Adolescent Peer Groups: A Study on the Reconstruction of Collective Orientations regarding Physical Education
Mrs. Lara Stamm (TU Dortmund University), Dr. Benjamin Zander (University of Goettingen)

Does Korfball have the Potential to Resist Current Gender Discourses in PE?: Perspectives of Junior Korfball Players
Dr. Laura Gubby (Canterbury Christ Church University)

Empowering Physical Educators to deliver effective PE-for-Health Pedagogies
Ms. Lara Tonna (Loughborough University), Dr. Lorraine Cale (Loughborough University), Dr. Jo Harris (Loughborough University), Dr. Rebecca Duncombe (Loughborough University)

The topic ‘Health’ in PETE in Bavaria, Germany – cooperative planning and changes in attitudes and mindsets
Mrs. Mandy Lutz (University of Augsburg), Prof. Hans Peter Brandl-Bredenbeck (Augsburg), Dr. Julia Hapke (Eberhard Karls Universität Tübingen), Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg)

Physical Education Teachers' Professional Learning in Digital/Online Contexts: A Korean Case Study
Prof. Okseon Lee (Seoul National University), Dr. Euiichang Choi (Seoul National University), Mr. Hyukj Clin Son (Seoul National University), Mr. Wonhee Lee (Seoul National University), Dr. Victoria Goodyear (University of Birmingham)

The Relationship between Diagnostic Competence and Lesson Structuring by Physical Education Teachers and Its Benefit for student’s motivation and anxiety
Prof. Miriam Seyda (University of muenster)
Diagnostic Competence of Physical Education Teachers and their Influence on Adaptive Teaching Structure in Sport
Mrs. Anneke Langer (Westfälische Wilhelms-Universität Münster)

Teaching and learning movement capability in PE: learning to run differently
Dr. Gunn Nyberg (Dalarna university)

An Action Research of Implementing TPSR in High School Dragon Parade Classes
Prof. Si Man Lei (University of Macau), Dr. Tanjian Liang (Central Washington University), Mr. Chin Ip Choi (Saint Paulo Secondary School), Mr. U Kei Wong (University of Macau)

“Doing our Own Thing”: College Students Perceptions of a Volleyball Sport Education Season
Dr. Luciana Braga (California State University, Chico), Ms. Xiaoping Fan (Ca)

A (re)turn towards the critical? A narrative inquirer and a critical sociologist meet at a cafe to discuss research in ‘marginalized’ sport and PE communities
Dr. Lee Schaefer (McGill University), Dr. Jordan Koch (McGill University)

Experiences of learning to become instructional coaches in H&PE: A qualitative analysis
Dr. Tim Fletcher (Brock University), Dr. Ken Lodewyk (Brock University), Ms. Katie Glover (Ophea), Ms. Sandra Albione (Ophea)
**Young People and their Engagement with Health-related Social Media: New Perspectives**

Thursday, 26th July - 08:30 - Symposium - Symposium

*Dr. Victoria Goodyear (University of Birmingham), Prof. Mikael Quennerstedt (Örebro University), Dr. Eimear Enright (The University of Queensland), Prof. David Kirk (University of Strathclyde), Dr. Lorraine Cale (Loughborough University)*

This symposium will provide original, empirically robust, and theoretically rich insights into the complex relationship between social media and young people, and will consider the potential impacts on the field of health and physical education (HPE). To date, the main target population for the analysis of risk in digital health has been healthcare professionals and adults (Swist et al., 2015; Rich & Miah, 2017). There are few empirical accounts of how young people use or share health information on social media (Hausmann et al. 2017), and how their experiences can be used to frame health interventions (Dunlop et al., 2016). As a consequence, no robust guidance on young people, social media and health is available (Hausmann et al. 2017) and there is little mention in school/childcare guidelines in current UK, European or US policy (Livingstone et al., 2017).

The session draws on data from over 1500 young people as ‘expert’ (or at least prolific) social media users and offers analysis from multi-disciplinary perspectives. The objectives are to: (i) increase awareness of the opportunities and risk-related impacts of social media on young people’s health and wellbeing; (ii) generate new theoretical insights into young people’s digital health; and (iii) provide new directions for pedagogy and practice in HPE.

The session is organised into three sections. Section 1: five original composite and digital narrative case studies will be presented. The case studies were constructed using a public pedagogy framework from participatory research with over 1500 young people (age 13-19) in ten UK schools. Section 2: three separate disciplinary analyses of the case studies will be presented. Each academic will identify key issues from their disciplinary perspective and implications for HPE. Section 3: The discussant will suggest new directions for effective pedagogy and practice in HPE.
The self-study of physical education practices: A methodology for empowering practitioners and supporting professional learning

Thursday, 26th July - 08:30 - Symposium - Symposium

Dr. Alan Ovens (The University of Auckland), Dr. Tim Hopper (University of Victoria), Dr. Chris North (University of Canterbury), Dr. Paul Mcmillan (University of Edinburgh), Dr. Nicola Carse (University of Edinburgh)

In this symposium we discuss self-study as a reflexive methodology for researching teaching and teacher education practices. We argue that, as a methodology, self-study brings sensitivity to the importance of the embodied individual-in-action and positions teaching as a practice that is simultaneously the thing we know about, the thing we do and the thing we research. As research practice, it offers potential for ways of understanding that embrace uncertainty, non-linearity, and the inevitable ‘messiness’ that is inherent in pedagogical settings. However, enacting self-study is far from straightforward. Indeed, it is not clear if self-study should be labeled a community of practice, a research methodology, or a particular attitude towards doing research. As a consequence, the presentations in this symposia explore how self-study opens a potentially fertile space for physical education scholarship because of the possibility of rethinking the body, self, knowing, and agency, particularly in relation to engaging in pedagogical work.
Making the transition into adulthood – how are university students experiencing the physical literacy journey (The PLJUS collaboration)?

Thursday, 26th July - 08:30 - Symposium - Symposium

Prof. John Saunders (Australian Catholic University), Prof. Brendan Cropley (University of South Wales), Prof. Lynne Kennedy (University of Chester), Dr. Katherine Markwell (University of Chester), Dr. Nalda Wainwright (University of W)

This symposium will report on a current inter-university collaboration, exploring how University students experience their physical literacy journey. With approximately one third of 18 year olds in the UK now choosing to enter university this sample of young people is becoming increasingly representative of the entire cohort of young people who have passed though the school system. As graduates of the system, they are representative of the levels of physical literacy achieved after up to twelve years of exposure to physical education and sport as part of their foundation educational experience. How well have the knowledge, attitudes and competence developed in that critical period of the lifespan prepared them for moving forward committed to participating in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person? Also, how do the environments offered by universities today, serve to either support or hinder their adoption of health-supporting physical activity behaviours as they transition into the new world of adulthood?

This symposium will report the initial results from an ongoing collaboration between four universities – three in the UK and one in Australia - which seeks to cast light on the above questions. Taking a person in the environment interaction approach, the project expects to have involved approximately 2,000 health science students in the first year of their studies at the Universities of Chester, South Wales, and Wales Trinity Saint David, and at the Brisbane and Melbourne campuses of the Australian Catholic University. Personal (psycho-social) and environmental variables associated with regular physical activity involvement are being measured and analysed in relation to self-reported measure of physical activity behaviour. The collaboration stresses the potential of comparative study in discriminating between issues of general significance and those where local and immediate factors are having a significant impact.
ObLoMoV (Obesity and Low Motility Victims): combining physical activity and theatre to tackle inactivity in preteens

Thursday, 26th July - 08:30 - Symposium

Prof. Marc Cloes (University of Liege), Dr. Arja Sääkslahti (University of Jyväskylä), Dr. Nicolas Franck (University of Liege), Prof. Nikolaos Digelidis (University of Thessaly), Dr. Saara Ehalt (University of Jyväskylä)

Overweight and obesity are common issues in the modern society. Motivating youth to be physically active has become a real priority in educational systems. Earlier research demonstrates that overweight youth are not ready to practice endurance activities that are usually proposed in physical activity programmes. High Intensity Interval Training (HIIT) has shown to be a very effective way to fight against obesity. It should bring more chances to be accepted by inactive and overweight youths than endurance based physical activities.

Ivan A. Gončarov created the well-known Russian novel, Oblomov. It portrays a nobleman who is incapable to undertake any important action and presents links with the attitude of inactive youths. Using theatre approaches is considered as an original pedagogical method that could facilitate their involvement in physical activities.

Inspired by Oblomov, an Erasmus+ project called ObLoMoV (Obesity and Low Motility Victims) has been devised. Using “physical short shocks” and “theatre short stories”, it aims to prepare educators to implement an innovative Oblomov model designed to convert inactive preteens into active and healthy ones. Seven partners from Italia, Belgium, Finland, Greece, and Slovenia are involved. A detailed presentation of the project is available online (https://www.oblomovproject.eu/).

The symposium will be divided in four parts: (1) Explanation of the Oblomov model with principles of HIIT training and theatre input; (2) Description of the Belgian implementation with the content of the unit and the presentation of the in-service module proposed to the educators recruited for the project; (3) Description of the Finnish implementation with the subjects and the contexts where the Oblomov model can be adapted, and finally, (4) Description of the Greek implementation with first results of the teacher education and implementation on the field.
Collaborative pedagogical practices within teacher education: Supporting physical education students’ professional development as a teacher

Thursday, 26th July - 08:30 - Oral - Professional learning with others - Oral

Dr. Kirsti Lauritsalo (University of Jyväskylä), Mr. Tommi Mäkinen (University of Jyväskylä), Dr. Anne Virtanen (University of Jyväskylä), Dr. Ulla Klemola (University of Jyväskylä), Prof. Päivi Tynjälä (University of Jyväskylä)

The ability to work collaboratively with others is a key competence one needs in working life today (Binkley et al., 2012; Future Work Skills 2020). According to recent studies, collaboration and interaction are emphasized more than before in the teaching profession (Häkkinen et al., 2016; Sahlberg, 2015; Vangrieken et al., 2015), which brings challenges to teacher education. The current study focuses on collaborative pedagogical practices in physical education teacher education. Data were collected in a study module where the pedagogical practices have been developed over ten years to be more collaborative. These practices are based on the self-determinant theory of Deci and Ryan (2000), the interaction model of Gordon (2004), and teachers’ own studies and experiences (Klemola, 2009; Lauritsalo, 2014; Tynjälä et al., 2016). In Finland, physical education students carry out these studies during their last academic year (4th or 5th). This study will show 1) how these collaborative pedagogical practices are developed and constructed from the perspectives of teachers, 2) how physical education students see these practices, and 3) the kinds of learning experiences physical education students gain from this study module. The data consists of the interviews with teachers (n=3), and physical education students (n=21) and the students’ questionnaires (N=93, n=71). According to the preliminary findings, the following unique traits characterize the construction of the study module: 1) intentional acts concerning a sense of community and togetherness, 2) collaborative knowledge construction, and 3) continuity concerning studying and learning. The physical education students felt that this study module advanced their professional development and as a whole provided an empowering professional educational experience. In short, physical education students’ professional development was the very learning outcome of this particular study module. Moreover, the collaborative pedagogical practices within this module can be characterized as a process that supports and promotes this development.
‘It could be quite a lonely job being a mentor’: Exploring the learning and development of sports coach mentors

Thursday, 26th July - 08:30 - Oral - Professional learning with others - Oral

Mr. Tom Leeder (University of East Anglia), Dr. Kate Russell (University of East Anglia), Dr. Lee Beaumont (University of East Anglia)

It has been suggested that learning to mentor is “somewhat developmental; it must be learned by engaging in it and needs to be constantly supported” (Gilles & Wilson, 2004, p.87). Despite increased scholarly work investigating sports coach learning, little attention has been made to exploring the process of learning to become a coach mentor, with calls for research to explore the “individual, contextual, and cultural differences with respect to mentor coaches’ development” (Koh et al., 2017, p.529). This research attempts to answer these calls by exploring the learning experiences of mentors employed by the Football Association (FA) as part of their formal FA Coach Mentor programme.

A qualitative case-study design was adopted, involving eighteen semi-structured interviews with FA Coach Mentors, alongside field notes from direct observations of FA mentor training events. Moreover, a focus group with eight Regional Mentor Officers was conducted. Interview questions focused on mentor learning by examining the impact of training, support networks, and the role of learning from experience. Data were analysed thematically, with references made to relevant learning and the broader mentoring/sports coaching literature. Initial findings indicate that learning to become a coach mentor is an idiosyncratic process. The mentors attributed different levels of value to the formal training they received from the FA; however the majority stressed the importance of attending to collaborate and learn from other mentors, despite the ‘content’ not significantly influencing learning. Additionally, mentors highlighted the importance of social networks and learning from experience, with an emphasis on reflection and ‘buddying up’. Workplace learning was considered to be vital by some mentors due to a perceived lack of guidance and support from the FA.

Findings demonstrate the importance of adopting a collaborative approach towards mentor learning and development. Based on mentors’ recommendations, tentative suggestions are made to enhance future mentor training.
Effective coaching requires coaches to consistently improve athletes’ competence, confidence, connection and character (4C). That entails coaches to benefit from scientific knowledge continuously. However, transfer of relevant sports science knowledge to coaching has been a vexing problem in many coaching cultures. Coaches often prefer contextual knowledge, with which they can link their experiences with information provided, but formal coach education courses fall short in meeting coaches’ needs. Potential of Learning Community Approach has been emphasized in teaching and coaching to help bridge that knowledge gap. However, previous studies usually have a lack of a situated scientific evidence to be built upon. Moreover, they have a misconception that coaches have an adequate conceptual understanding of defining and communicating their needs, and can link their previous experiences with scientific information provided. Purpose of this study was to examine effects of a six-week learning community program (LCP), created based on coaches’ needs, on coaches’ perceptions of LCP experience. Six coaches from a competitive youth artistic gymnastics participated in this study. In defining coaches’ needs, forty-five competitive gymnasts and their coaches from nine teams completed validated forms of proposed measures for the 4Cs of athlete outcomes, on which the program was constructed. A video-recorded and fully transcribed text of six-week LCP, an interview with the facilitator and a visiting sports psychologist, a focus group interview with the coaches, and researcher field notes were qualitative data sources analyzed through thematic analysis. Coaches perceived that LCP provided an excellent environment for their comprehension of situated scientific information. They become able to define and communicate their needs with experts (e.g., sports psychologist) and started to change some of their coaching practices accordingly. The study has critical implications for creating and delivering effective coach training programs to promote coaches’ professional development.

Keywords: Coach education, professional development, learning community
Teacher Learning Experiences Of Pete Students’ With The Peer Tutoring Model Through Community Of Practice

Thursday, 26th July - 08:30 - Oral - Professional learning with others - Oral

Mr. Gokhan Sacmalioglu (Ankara University), Dr. Ferda Gursel (Ankara University), Dr. Ozlem Alagul (Kastamonu University)

Innovative educational approaches to improve the quality of teacher learning require changes to the traditional teacher role towards operating as co-learners and co-facilitators, and working in teacher teams, with considerable professional learning supporting this. Lave and Wenger (1991, 31) also made an assumption that learning is an integral and inseparable aspect of social practice where a person is not seen as an individual but part of a cultural and community context.

Thus, the purpose of this paper was to explore PETE students' teacher learning experiences in Folk Dance class conducted with Peer Tutoring Model through community of practice (CoP).

This case study examines PETE students' teacher learning experiences of non-reciprocal Peer Tutoring model in a newly constructed CoP. This CoP consisted of ten tutors of second grade PETE students and their Folk Dance class lecturer as an expert role. The two teacher educators in physical education department performed as a critical friend in conducting Peer tutoring model.

Multiple sources of data collection were employed: teacher field notes, pre and post interviews with tutor PETE students, post interview with tutee PETE students, audio of CoP meetings, audio of post lesson reflections among PETE students both tutor and tutees and lecturer, video of lessons.

Data were analysed through inductive analysis and constant comparison and the themes emerged were: “one to one interaction: pay attention to individual characteristics”, “not only learning tasks but also culture of learning”, “changing roles”.

The data revealed that PETE students adopt teaching role by discussing and engaging in conversation with peers and they create their own learning culture through being active participants in the practices of social communities.

As a result, PETE students informally and collaboratively learn from each other and form strong identities as teaching professionals when they work with peers in community of practice.
“I can dribble!”. On the relationship between children’s motor competencies and corresponding self-perceptions.

Dr. Christian Herrmann (University of Basel), Dr. Harald Seelig (University of Basel)

Introduction
Self-perception plays an important role in psychological development. School curricula in German-speaking countries emphasize fostering a positive self-perception of physical performance as a goal of physical education instruction. This article introduces an operationalization of the self-perception of motor competencies (German: Selbstwahrnehmung motorischer Kompetenz; SEMOK).

Methods
In a validation study (N = 310 children; 53% girls; M = 11.26 years, SD = 0.49), we tested the construct and criterion validity of the SEMOK test instrument. We calculated an exploratory structural equation model and a confirmatory factor analysis with eight SEMOK test items.

Results
Both analyses confirmed that the SEMOK test instrument has the same two-factor structure with the factors self-perception of self-movement and self-perception of object movement as that of the MOBAK test instruments for measuring basic motor competencies (German: Motorische Basiskompetenz). The latent correlation between the SEMOK factors and the MOBAK factors was $r = .73/.83$, with physical self-concept at $r = .75$ for both. Further, it could be shown that self-perception of motor competencies mediated the influence of basic motor competencies on physical self-concept. The SEMOK factors were correlated with covariates (e.g., gender), learning dispositions (e.g., interest), and behavioral characteristics (e.g., engagement in sports) at a level comparable to the MOBAK factors.

Conclusion
The confirmation of the two-factor structure and the correlations with external criteria provide initial indications for the construct and criterion validity of the SEMOK test instrument and show the close connection between basic motor competencies and their self-perception.

References
Influence of Physical Fitness on Academic Achievement in Chinese Adolescents: Evidences from a Longitudinal Study

Thursday, 26th July - 08:30 - Oral - Movement, learning and development - Oral

Prof. xu wen (Zhejiang University)

Objective: to investigate the influence of physical fitness on adolescents' academic achievement and explore its mechanism. Methods: 966 Grade 7 students were recruited in the current 2 years longitudinal study. Students' aerobic endurance, weight status, muscular strength, flexibility and speed in first and second year were measured with the method of National Student Fitness Survey respectively. The standardized scores of final examinations in Chinese, Mathematics, English, Science and Society in second year were used as indicators of academic achievement. Adolescent executive function scale which was developed by Institute of Psychology in Chinese Academy of Sciences was applied to measure students' executive function. Results: The students with low aerobic endurance had significant poorer academic performance in the five courses and the moderate effects (Partial $\eta^2$: 0.074-0.081) was found. Poorer performances in other fitness factors (muscular strength, flexibility, speed and weight status) were also found to be associated with lower scores in the courses examinations, but only slight effects were found. The results of structural equation model using the cross-sectional data of students in grade 9 indicated that physical fitness not only influence academic achievement directly, but also has indirect relation through executive function (NFI=0.94;CFI=0.96; RMSEA=0.079). Conclusion: Improving physical fitness may have positive influence on students' academic achievement, in which moderate effects was found in aerobic endurance and slight effects was found in muscular strength, flexibility, speed and weight status. Executive function serves as an important mediator in the relation between physical fitness and academic achievement.
A Trial of EF-Oriented Physical Activities for Preschoolers in China

Thursday, 26th July - 08:30 - Oral - Movement, learning and development - Oral

Ms. Yiran Wang (Peking University), Prof. Jinxia Dong (Peking University)

For a long time, the aim of physical activities (PA) for preschoolers in China is to cultivate basic motor skills and improve health and fitness. With the development of neuroscience, it is widely accepted that environment can shape the brain structure and functions. A number of studies claimed that PA can have impact on people's executive functions (EF) that contain continuous attention, reaction inhibition, cognitive flexibility and memory. However, most existing literature in this area is about physiological mechanism of the executive functions and the impact of PA in general. So far, there is little publication about the effect of EF-oriented PA on children's EF. This study is to explore the possibility of designing EF-oriented PA to develop preschoolers’ EF.

It is hypothesized that EF-oriented PA can promote preschooler's executive functions more effectively than traditional PA. An EF-oriented PA program was designed first and then tried in 5 kindergartens in China for 14 weeks. Each kindergarten had one trial group and one control group. In total there were some 220 subjects. Flanker, DCCS, Go-no-go and WMT tests were carried out for both trial and control groups before and after the trial.

The result shows that significant difference is seen between the trial and the control groups in cognitive flexibility, but no significant difference in continuous attention, reaction inhibition and memory between the two groups. And the mean value of trial groups is larger than the control groups. This suggests that the EF-oriented physical activities program has significant positive impact on cognitive flexibility. More studies need to be done in this field.
Innovative and transformative teaching strategies for enhancing learning outcomes ‘in’ physical education (PE) are of interest to most practitioners. This is especially true in the context of re-imagined approaches to the discipline which centralise the lifewide and lifelong health, wellbeing and movement needs of young people. Supporting young people to value movement is emerging as a substantive educational purpose as well as pedagogical approach with potential to also influence leisure and occupational outcomes by focusing on the ways in which meaning making occurs ‘in’ movement over time. We argue this educative purpose should include providing learning moments where young people are moved by the feel (sight, sound, smell, taste) of moving and then supported to make meaning from this embodied experience (now and in the future). By engaging with phenomenological concepts through the work of Smith (2007), Kretchmar (2000, 2011) and Stolz (2015) we seek to provide pedagogical examples that are underpinned by these kind of ‘embodied learning’ moments and that can be deployed as ‘embodied pedagogies’ in PE. Using a variety of data collection methods (ranging from observation and interviews, to document collection and photography) from our separate research projects in two quite different contexts (a secondary school and fire fighting camps) we present a narrative inquiry case study about young people feeling, making sense of and experiencing embodied moments ‘in’ movement. Together we re-consider the future role of PE as a space that is responsive to the ways in which movement is experienced and felt, and the embodied meanings and learnings to be derived from that. To that end we use the case studies to interrogate and extend the notions of ‘valuing movement’ and ‘embodied learning’ to identify and then build a repertoire of practical ‘embodied pedagogies’ which we present as teaching and learning activities for PE classrooms.
Castle’s Competition Model for Building Confidence and Competence in Action.

Thursday, 26th July - 08:30 - Oral - Competence, confidence and cooperative learning - Oral

Mr. Neil Castle (Canterbury Christ Church), Dr. Kristy Howells (Canterbury Christ Church University), Dr. Laura Gubby (Canterbury Christ Church University)

Previously, Castle (2017) proposed a model of effective learning in competition that encouraged teachers to plan more effectively to introduce competition as a pedagogical tool within their lessons. Far too often competition is seen as an end product, something to do at the end of the learning process to promote what has been accomplished. Yet Castle’s model for effective learning in competition promotes how competition could be used as part of the teaching and learning process. One of the four main aims of the National Curriculum in England (DfE, 2013) focuses on competition being key - ‘taking part in competitive sports’, highlighting the importance of this research.

In 2017-2018, the researchers are extending Castle’s competition theoretical model to investigate the application of the model to current teaching practice, within two, two-form entry primary (elementary) schools to investigate if the model can be used as a tool to build confidence and competence of children learning physical through competition. Both schools have achieved School Games Gold awards and are considered by Ofsted as outstanding in their provision of Physical Education and School Sport.

Methods

This paper will report on the comparison between the two schools and the application of the Castle competition model to physical activity challenges designed around fundamental movement skills. It will consider how competition can foster improvement in performance, what types of competition generates the most confidence and competence in Physical Education lessons, the type that children engage in most and the preference of the different types of competition.

Results and Conclusion

The data is currently in collection, it will analyse the children’s performance and scores within the physical activity challenges. The children’s improvement and engagement will be assessed to evaluate the Castle competition model and if confidence and competence can be enhanced.
Evaluating the impact of two feedback methods for improving pre-service teacher’s perceived confidence and competence to teach physical education within authentic learning environments

Thursday, 26th July - 08:30 - Oral - Competence, confidence and cooperative learning - Oral

**Dr. Narelle Eather (University of Newcastle), Dr. Nick Riley (University of Newcastle), Dr. Andrew Miller (University of Newcastle), Dr. Scott Imig (The University of Newcastle)**

**Abstract**

It is claimed that universities are failing their students through poor feedback practices. Worldwide, students report that they do not receive feedback on assessments that is helpful for their learning, and are not given opportunities to use feedback provided by academics to develop their work. Formative assessment tasks that support students within authentic learning environments and provide opportunities to actively engage in the feedback cycle to improve their work, show potential for promoting learning. This novel study investigates the use of two feedback methods, peer dialogue assessment (PDA) and verbal feedback, as assessment for learning tools in existing undergraduate physical education (PE) courses.

**Methods**

Pre-service teachers enrolled in four physical education courses at Newcastle University of Newcastle, Australia, 2017 were invited to participate (290 recruited). In the final weeks of semester, students participated in a 3 or 4-week in-school teaching program (~1.5 hrs/week) and worked in teams of four (2 pairs) to plan and teach primary or secondary school PE. The groups spent 45min teaching with their partner, and 45min observing each week. Students in the PDA group engaged in PDA at the completion of each concurrent teaching session with their respective peer group. Dialogue lasted approximately 10-15mins / session and was framed on the SAAFE principles of delivery. The verbal feedback group were observed by the academic and engaged in verbal feedback and discussion at the completion of each teaching session.

**Results**

At 15-weeks (n=206) both feedback groups exhibited improvements in perceived teaching confidence (mean change (out of 5) PDA:+0.92 (0.67) V:+0.87 (0.8)) and competence (PDA:+0.87 (0.58); V:+0.86 (0.72)), and teaching self-efficacy (PDA:+0.44 (0.53); V:+0.3 (0.65); with no significant differences between groups (P>0.05).

**Conclusion**

Using PDA or verbal feedback may be effective and well-received approaches to learning when used in an authentic teaching environment in undergraduate PE courses.
Cooperative Learning as a pedagogical practice to help students develop their Social and Emotional Learning

Dr. Ben Dyson (The University of Auckland), Ms. Rachel Colby (Stonefields Primary School)

In Cooperative Learning (CL), students work together in structured, small, heterogeneous groups to master subject matter content. More than 2,000 research studies on CL have been conducted in general education (Johnson & Johnson, 2009), however, the impact of this pedagogical model in Physical Education (PE) has been studied much less (Casey & Goodyear, 2015). The current study of the implementation of CL in PE focused on the development of students’ Social and Emotional Learning (SEL). SEL involves acquiring and effectively applying the knowledge, attitudes, and social skills to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (Weissberg & Cascarino, 2013). The study examined teachers’ beliefs about SEL and the SEL pedagogy they use to meet the needs of their learners. This research is a case study design (Stake, 2005) to investigate teachers’ beliefs and practices and students’ perspectives and understanding of SEL at the primary school level. Evidence was collected at four primary schools in Aotearoa New Zealand (NZ) from teacher and student interviews, Post Teacher Reflective Analysis, documents, students’ work, and field notes at the schools. The qualitative data analysis addressed the trustworthiness of the data by establishing their credibility, dependability, confirmability, and transferability (Miles, Huberman, & Saldana, 2014). Findings for this presentation will focus on students’ perspectives and represent their voice. The following themes were identified from the evidence: I am a good team member, You learn how to listen, It makes me feel awesome, It helps other people, and Because it makes the game fair. The findings indicate that CL is a pedagogical strategy for assisting teachers to develop SEL in their classrooms. The study found that CL can meet the intentions of the NZ Curriculum Framework (MOE, 2007).
Implementing Teaching for Personal and Social Responsibilities (TPSR) to build a positive hockey team in secondary school - An action research approach

Thursday, 26th July - 08:30 - Oral - Personal and social development - Oral

Prof. Si Man Lei (University of Macau), Dr. Soi Po Wong (University of Macau), Mr. Ka Hei Lam (Saint Paulo Secondary School), Mr. Chi Hong Leong (University of Macau)

Background and purpose:
The purpose of this small-scale action research is to reflect on professional and practical challenges of a coach from a secondary school activity in Macao. The coach who built a positive hockey team but faced challenges of reshaping and encouraging good behaviors and pleasant atmospheres. The coach intended to implement teaching personal and social responsibility model to take lead of a team culture and explore players' attitude in term of respect, self-motivation, self-direction and caring.

Methods:
This small-scale action research has been applied with two simple cycles, plan, and action, observe and reflect developed by Stephen Kemmis (MacIsaac, 1995). With a designated-6-week daily training program by using TPSR model and divided into two cycles. There were 15 players (male, aged 15-17) had consented to participate in this study, and the data was collected from coach training journals, players' interviews, video recording, observer record and professional talks by different prospective (triangulation).

Results and conclusion:
Whilst carrying out the action plan of the hockey team daily training program, the coach narrated that the corresponding strategies for applying the TPSR model were to design small games in warm-up exercise, and to modify games in training activities in order to create the expected positive sport team culture. Which ameliorate players' personality and behaviors especially sense of purpose and responsibility. TPSR model brings out the importance of respecting and cooperating with others to players, and thus consolidate their socio-emotional skills, communicate, cooperate, and deal with conflict. Researcher therefore improve the skills of designing positive sport team training program and strengthen the professional development for coach. There are suggestions that elongating the period of carrying out the plan and try to put TPSR model for individual player.

Keywords: Action Research, TPSR, High School Sport. Hockey Team
A novel application of TPSR in Australia through school-sports club partnership

Thursday, 26th July - 08:30 - Oral - Personal and social development - Oral

Dr. Sue Whatman (Griffith University), Dr. Katherine Main (Griffith University)

Teaching personal and social responsibility (TPSR) is a core feature of many health and physical education (HPE) curricula around the world (c.f. Gordon, Thevenard & Hodis, 2012; Martinek & Hellison, 2016). The TPSR model details five core features of successful social and emotional learning programs, emphasising the transferability of student learning in settings other than the HPE classroom. This study examines the novel take on TPSR of a school-sports club partnership, conducted by classroom teachers using a custom, integrated curriculum drawing upon the personal development strand of HPE in Queensland, Australia. Year Three or Four (9-10 years old) students, classroom teachers and elite rugby league players interacted in an alternative schooling program for children identified as being at-risk of disengaging from school. Viewed with lenses from CASEL (2017) and Hellison (2010), this paper unravels the way in which HPE curriculum designed around the principles of TPSR framed the interactions of players, students and teachers in ways that enabled students to realise their learning back in regular classroom and home life settings.

References


Background and purpose: Sport is considered a means of responding to social problems (Nicholson & Hoye, 2008) and helping young people to get along with their lives. In German Schools, extra-curricular sport programs offer possibilities for sport as a kind of social work. Because of the lack of both a curriculum and of special education in this field, teachers are left alone to develop their own approach. How do they come to a working model?

Methods: We present a qualitative interview study that examines how sport in extra-curricular school programs can help to develop social and personal capital. Therefor we analyzed semi-structured interviews with teachers (n=26) working at schools with students that demonstrated special social needs. On the one hand we focus on social aims and effects and on the other hand on strategies and concepts.

Results: The results show that teachers offering extra-curricular sports programs strive for benevolence and authenticity to support pupils with special social needs. Thus, they mostly don’t use conventional teaching methods but prefer experiences within a “real sport” that helps young people to acquire “real life” skills (for example self-discipline through boxing).

Conclusions and implications: It is paradox that teachers have to avoid educational standards if they want to act in socially-responsible ways. When it comes to confronting social problems, the key skills of relationship-based social work (Ruch, Turney & Ward, 2010) seem to be more important than any over-all educational concept. This conclusion has led us to examine the question about a special training or a Master degree in the field of social working with the means of sport.

References:
In response to a world-wide survey of school physical education (PE), Hardman et al. (2013) noted that along with motor development, physical activity and health promotion, personal and social development is one of the most frequently cited aims in European PE programs. In a world that is rapidly changing, children in both primary and secondary school can indeed benefit from developing a range of personal and social skills in PE, such as positive peer relationship skills, prosocial behaviors (e.g., respect and responsibility), leadership skills, and problem-solving skills (e.g., Partnership for 21st Century Skills, 2006; Weiss, 2011). Yet, while the development of personal and social skills seems a widely-accepted goal of physical education, research on this topic is less well developed, i.e., the number of publications is relatively low and this literature is fragmented in terms of terminology and the methods used. Moreover, PE teachers seem to struggle with the realization of personal and social goals in their lessons (e.g., Jacobs, Knoppers, and Webb, 2013). Hence, a systematic review was conducted to provide an overview of the existing literature on this topic. PE and sport programs designed to promote children’s personal and social development were evaluated with regard to teaching strategies, intended program outcomes, contextual assets, and evaluation and implementation variables. The review provides insight into the relevance, possibilities and challenges that come with teaching personal and social skills in PE lessons, and identifies research gaps and suggestions for future research. The topic of this presentation relates to the sub-theme “innovative perspectives on physical education” as well as to the sub-theme of “empowering practitioners and supporting professional learning”.
Peer-tutoring in inclusive physical education: addressing stigma and enhancing empathy in early adolescents

Dr. Erica Gobbi (University of Padua), Prof. Attilio Carraro (University of Padua)

**Background and purpose:** During PE, students with disability can experience isolation, derision and less engagement compared to peers (Qi & Ha, 2012). Empathy can improve attitudes for a stigmatized group (Batson et al., 1997). The purpose of this study was to evaluate the effect of an inclusive PE program on empathy and implicit attitudes toward people with disability among early adolescents.

**Methods:** 242 students were involved in the study (mean age 13.1±1.7 years), 129 volunteered to attend an extra 1-hour PE class per week for 6-month, where they tutored students with disabilities adopting a one-on-one relationship (for more details see Gobbi & Carraro, 2018), 113 served as control. The Interpersonal Reactivity Index to evaluate affective and cognitive component of empathy, and the Disability Attitude-Implicit Association test were administered pre- and post-intervention. RM-ANOVAs were conducted for boys and girls separately.

**Results:** Both boys and girls involved in the peer-tutoring inclusive PE reported enhanced affective ($F=5.9$, $F=6.6$ respectively, with $p<.05$) and cognitive empathy ($F=6.4$, $F=8.5$ respectively, with $p<.05$) in comparison to the control group. Implicit attitude resulted significantly more positive after intervention for boys in the experimental group ($F=5.1$, $p=0.026$).

**Conclusions and implications:** Findings support that peer-tutored inclusive PE can positively affect empathy, both in its emotional and cognitive dimensions, among early adolescents. Importantly, the lowered negative implicit attitude toward people with disability reported among boys may sustain the importance of inclusive PE to reduce stigma and discrimination in educational setting.

**References**
Better Learning with Fair Play in Physical Education?

Thursday, 26th July - 08:30 - Oral - Fair play, inclusion and social justice - Oral

Dr. Petter Leirhaug (Western Norway University of Applied Sciences), Mr. Åge Lauritzen (Western Norway University of Applied Sciences), Mrs. Reidun Fretland (Western Norway University of Applied Sciences), Mr. Joar Fossøy (Western Norway University of Applied Sciences)

Fair play is a well-known concept in sports. It concerns rules, norms, etos, and constitutes an established value within organized sports and research related to sports ethics. In the context of physical education (PE) and schooling, however, fair play is less known. In Norway, the Ministry of Education and Research introduced fair play as a central element in the national curriculum in 2012. Taking this as our point of departure, this study set out to explore the understanding and practice of fair play among PE teachers and student teachers. In addition, we aimed to investigate to what extent the strengthened focus on fair play has led to changes in teachers’ practices.

Data was collected through ten group interviews with a total of 19 student teachers and 19 teachers, from 11 different schools. Teacher and student teachers did participate in separate groups. Conducting the interviews, there was always two researchers involved. The interviews were recorded and transcribed verbatim. A theoretical framework based on moral and social education and earlier research on fair play were used to guide a thematically analysis of the data.

The results reveals that the PE teachers rarely use the term ‘fair play’ directly in their teaching. However, they take it into account in student assessment, and both teachers and student teachers expressed that the values and philosophy of fair play were central to the subject PE. Rather than a teaching area with learning outcomes, fair play in PE in practice is constructed mainly as a mean for citizenship education, and contextualized within a broader field of moral and social development. We conclude that fair play in PE is understood different from the more technical concept in sports, and that it has the potential to renew and improve working methods and learning processes in PE.
Dodgeball: Is the unintended outcome of Dodgeball teaching the five faces of oppression?

Thursday, 26th July - 08:30 - Oral - Fair play, inclusion and social justice - Oral

Dr. Joy Butler (The University of British Columbia), Dr. David Burns (Kwantlen Polytechnic University)

A long-standing connection is made in the public imaginary between the practice of sport and the practice of ethical behaviours. We pursue this in our presentation as we consider the potential of games education as a means of education about the spirit of friendship and fair play, and, sadly, sometimes animosity and divisiveness. Varela (1999) has suggested that ethical decisions are usually made in the moment in real life situations and that these day-to-day choices accrue over the years to develop what he calls “ethical know-how” and Aristotle (1999) called phronesis, or mindful wisdom. In this presentation, we argue that physical education provides a context in which such know-how is constantly being developed. Despite the fact that many physical educators understand their vital role in helping students develop robust, equal, productive relationships and critical awareness, their practices on the ground do not always reflect this agenda. We suggest that this tension becomes sharply visible in the common practice of allowing students to play dodgeball. We further argue that the lessons learned in playing dodgeball are antithetical to anti-oppressive education. Our argument is situated in three ethical perspectives – Nodding’s (1984; 2010; 2012) ethic of care, Young’s (1990) consideration of the five faces of oppression and Aristotle’s (1999) reflections on the nature of virtue. As we consider the potential of physical education to empower students by engaging them in critical and democratic practices, we conclude that the hidden curriculum offered by dodgeball is antithetical to this project, even when it reflects the choices of the strongest and most agile students.
The Organizational Roles, Responsibilities, & Tasks Of An Elite-Level Basketball Coaching Staff

Thursday, 26th July - 08:30 - Oral - Coaching and Coaches - Oral

Prof. Bryan McCullick (University of Georgia), Prof. Paul Schempp (University of Georgia), Dr. Tiffany Isaac (Xavier University), Mr. Ashton Dooley (University of Georgia)

The Coaching Model (Côté et al., 1995a), theorized coaches' major objective as athlete development and their job consisting of three primary components: (a) training, (b) competition, and (c) organization. Despite its importance, the organization component has largely been ignored by scholars' keen focus on training and competition (Côté & Salmela, 1996). The purpose of this study was to investigate the organizational component of an elite-level basketball coaching staff. Via the theoretical lens of Role Theory, this study analyzed the organizational: (a) roles, (b) responsibilities, and (c) tasks of an elite-level basketball coaching staff.

The case study used interviews, field notes, and artifacts. Data trustworthiness was addressed by prolonged engagement and member-checks. Inductive analysis revealed a distinct staff structure enabling fulfillment of organizational roles, meeting of organizational responsibilities, and performance of organizational tasks vital to the operation. Themes emerging regarding the organizational roles of the staff were: (a) Delegator, (b) Recruiter, (c) Promoter, and (d) Coordinator. These roles required meeting organizational responsibilities of: (a) Monitoring Player Academic Progress, (b) Opposing Team Analysis, (c) Player Evaluation, and (d) Program Promotion which mandated performing organizational tasks of: (a) Preparing Scouting Reports, (b) Pursuing Potential Players, (c) Reinforcing Programmatic Tenets, and (d) Responding to Environment Variability.

The study provides new insights into the organizational responsibilities of a coaching staff. Notably, it isolated and analyzed the roles, responsibilities, and tasks of the organizational component. The results appear to support Jones and Wallace's (2005) exhortation to orchestrate coaching through the provision of an exemplar of a staff managing the complexity of coaching. Furthermore, the findings support Vallée and Bloom's (2005) contention that coaching involved more than being the traditional teacher/psychologist. Perhaps coaches and coach educators should reconsider the idea of the coaching act that encompasses the roles, responsibilities, and tasks of coaching's organization component.
Despite burgeoning literature on the agency of sports coaches and the nature of coaching fields, scant attention has been paid to the process through which coaches' identities are socially constructed. Informed by Goffman's concept, *total institution*, and Scott's *reinventive institution*, this paper explores how coaches' athletic experiences within totalising sports environments influence the formation of their identity as coaches. Drawing on South Korea's elite sports context where almost all high-performance coaches are former athletes who share experiences of being trained under an authoritative sport regime, a qualitative analysis was conducted on data from documents and in-depth interviews with 26 participants. Findings reveal that: (1) individual selves in the coercive sports setting were eroded and rewritten by the totalising nature of the social architecture; (2) nevertheless, the individuals displayed a certain degree of agency in their desires to reinvent themselves in the sports setting; and (3) the nexus of institutional power of the sport setting and voluntary participation of the individual athletes engendered a *one-dimensional* identity that was optimised only for the elite sports setting. These findings suggest that the identities shaped within the South Korea's elite sports environment led athletes to become coaches upon retirement from sports, reluctantly returning to, or remaining in, their ‘comfort zone’—the totalising environment of elite sports. By exploring the interplay between individual coaches' subjectivity and the structural environments where the coaches are located, this presentation provides new insights into the process of becoming and/or being a sport coach, which is one of the emerging themes for the development of meaningful coaching practices and coach education programmes.
Game Based Approaches (GBAs) have been advocated as pedagogies that develop players’ overall game performance, and facilitate personal and social development. Originally proposed for physical education settings, there is growing evidence of GBAs being employed in coaching contexts, particularly competitive team-sport settings. Despite this growth, insight is currently limited to team sports such as rugby. Consequently, there is scope to expand GBA research into other popular team sports, particularly those in specific cultural contexts such as Gaelic football. Elite Gaelic football coaches (n = 12) working at senior inter-county level in the 2017 season completed a semi-structured interview about their experiences of employing GBAs. Results revealed that coaches apply some but not all of the core features of GBA pedagogy. For example, coaches reported their use of games to develop players’ tactical awareness, decision making and match fitness. In addition, coaches provided examples of the employment of questioning and player led discussions within practice sessions and team-meetings, all of which served to promote the social and moral coaching environment. Notwithstanding these findings, coaches were largely unaware of the existence of specific GBA models proposed in the research literature (e.g. Game Sense). Moreover, their views regarding the development of skill through isolated skill practice and sequencing of sessions in a linear format indicate traditional coaching tendencies. In summary, this study is a critical step towards gaining a richer and broader understanding on the impact of GBAs in a competitive team sport context not currently available in the research literature. While the results of the current study highlight tangible examples of coaches employing some key features of GBA pedagogy in competitive team sport settings, it identifies an epistemological gap in coaches’ understanding of a GBA, which coach education programmes and future research should seek to address.
Learning to be a player-centred coach: perspectives from the sideline

Thursday, 26th July - 08:30 - Oral - Coaching and Coaches - Oral

**Dr. Anne O’Dwyer (Mary Immaculate College), Dr. Richard Bowles (Mary Immaculate College, Limerick), Dr. Déirdre Ní Chróinín (Mary Immaculate College)**

**Background & Purpose**
While being *player-centred* is advocated as a core aspect of high quality coaching programmes (Gilbert, 2017), there has been a limited research focus on how coaches implement such an approach. In this study, the coach-researchers engaged in a collaborative self-study of their own coaching practices, as they tried to implement player-centred coaching principles with a team during the course of a university Gaelic football season.

**Methods**
Collaborative self-study provides researchers with a means to discuss, critique and improve current practice through engagement in reflection and dialogue (Petrarca and Bullock, 2014). Data were generated using coaches’ weekly training plans and reflections, and recorded critical friend conversations. Players’ perspectives were elicited through qualitative questionnaires and focus group interviews conducted at three points during the season. The data were analyzed thematically (Braun and Clarke, 2013).

**Results**
Coaches’ and players’ previous experiences impacted on their perceptions of, and engagement with, a player-centred approach. The coaches were required to integrate pedagogical strategies such as problem-solving and discussion, as they sought to facilitate player experiences that were learner-focused and empowering. Maintaining a clear player-centred focus was challenging in the context of a competitive team environment, but positive outcomes were observed when players were involved in decision-making and planning.

**Conclusions & Implications**
This research provides insights into the approaches taken by two coaches as they collaborated to create a player-centred coaching environment. These insights inform their design of a guiding framework that highlights the importance of a positive culture, shared goals, affirmative pedagogies and mutual learning.

**References**
‘Could have done better’: Teachers’ interpretation and implementation of the new National Curriculum for Physical Education (NCPE) in England.

Thursday, 26th July - 08:30 - Oral - Curriculum arrangements/assessment/examinations - Oral

Dr. Frank Herold (University of Birmingham)

Background and purpose
Ennis (2011) notes that it is the central role of any curriculum to serve as a fundamental framework for teachers, acting as a guide to assist them in their efforts to achieve the principal learning outcomes of the subject. Bernstein (2000) outlines how subsequent processes of re-contextualisation determine how official curriculum documents are actually interpreted by teachers. There is a dearth of primary research in this area and this study explores how English Secondary PE teachers implemented the new NCPE (DfE, 2013) in English schools.

Method
43 Physical Education Teachers from 12 English Secondary Schools participated in semi-structured interviews exploring their approach to teaching the new NCPE. Constant comparative method was used to develop themes and categories during the data analysis process (Charmaz, 2006).

Results

• The brevity of the official curriculum document provided teachers with very limited guidance for their teaching, but was seen as liberating by some.
• Teachers’ uncertainty was accentuated through lack of secondary re-contextualisation, as well as lack of engagement with the documents.
• The absence of specific assessment guidance was perceived to be a significant weakness of the document.
• Lack of guidance is likely to impact on standardisation of teaching practices across English schools.
• Many teachers interpreted their own, existing practice as ‘best practice’ and perceived little impetus/need for change

Conclusion and Implications
The latest curriculum reform is unlikely to have much immediate impact on the current teaching of PE in England. Lack of detail, limited guidance and enthusiasm are unlikely to cause curricular innovation as a consequence of the reform, with curricular stasis and divergence of practice being the most likely medium term consequences. Verdict: Could have done better.
‘When an old cricketer leaves the crease’: Bittersweet reflections on examination awards in physical education

Thursday, 26th July - 08:30 - Oral - Curriculum arrangements/assessment/examinations - Oral

Dr. Malcolm Thorburn (University of Edinburgh)

The paper reflects on the development of examination awards in physical education from a predominantly autobiographical research perspective. The paper draws on experiences and reflections from inside examinations as a teacher, part of the policy and implementation process and document author and outside examinations as a researcher of the aspirations of awards and policy enactment in schools in Scotland. This combined perspective proceeds via a largely chronological appraisal of school and national policy developments allied to analysis from a wider academic review of progress. Despite early enthusiasm by students and many teachers the review highlights the problems of announcing policy rather than engaging with the ongoing detail of policy problems. This approach has led to variable progress and a lack of boldness in making learning suitably personalized with closer connections between practice and theory informing teaching and assessment. Furthermore, through the adoption of rote learning and assessment procedures, teachers have become complicit in affirming that while greater educational goals are achievable their particular practices are unlikely to realize these goals. In order to avoid further regression it is argued that examination awards need to unlock practice problems through engaging with research evidence which assists in understanding better the complex components of authentic practice, practice and theory integration and how increased use of digital technologies can personalize learning and enliven teaching and assessment. Without this occurring, examinations in Scottish physical education represent something akin to a pyrrhic victory, where expanding policy provision has left behind rather underwhelming learning gains and where teachers’ sense of agency is curtailed by a messy combination of difficult to rectify professional concerns.
Transformative assessment in the subject of physical education.

Thursday, 26th July - 08:30 - Oral - Curriculum arrangements/assessment/examinations - Oral

Dr. Björn Tolgfors (University of Örebro)

Introduction:
The objective is to reveal different versions of assessment for learning (AFL) in the subject of physical education (PE) and identify the triadic relations between teacher, student and subject content established under different circumstances.

Methods:
The empirical material was gathered through group interviews with PE teachers in combination with lesson observations and semi structured interviews with students and teachers at three upper secondary schools in Sweden.

The material was categorized by means of the five key strategies of AFL (Wiliam, 2011). The next step of the analysis was carried out from a performativity perspective (Tolgfors, 2017; Ball, 2000) in order to identify the triadic relations (Hudson, 2002) established under different circumstances.

Results:
The findings highlight five contrasting versions of AFL as: i) empowerment, ii) physical activation, iii) grade generation, iv) constructive alignment and v) negotiation. These versions imply that AFL is transformative.

Conclusions:
The five versions of AFL promote different kinds of learning: i) increased autonomy, ii) participation in a community of practice, iii) criteria compliance, iv) acquisition of prescribed abilities and v) group development.

Moreover, different teacher and learner identities are constituted through the contrasting versions of AFL.

References:

Key words: Assessment for learning (AFL), Physical Education (PE), performativity, transformative assessment.
Preservice Teachers’ Assessment Implementation in Models Based Practice

Thursday, 26th July - 08:30 - Oral - Curriculum arrangements/assessment/examinations - Oral

Ms. Jenna Starck (The University of Alabama), Dr. Oleg Sinelnikov (The University of Alabama), Dr. Kevin Richards (The University of Alabama)

Background and Purpose. Regular student assessment in Sport Education is a critical part of the pedagogical model; however, learning to plan with curriculum, pedagogy, and assessment in alignment is a difficult task for preservice teachers. Using the lens of occupational socialization theory, the purpose of this study was to examine how preservice teachers understand and enact the message system (assessment, pedagogy, and curriculum) while employing the Sport Education model in an advanced methods course. Research questions included:
(a) How do pre-service teachers make instructional decisions related to models-based practice?, and (b) How preservice teachers’ understanding and beliefs of assessment correspond with their practices?

Methods. Six participants who had previously taught three Sport Education seasons and were enrolled in advanced physical education methods course were purposefully selected. The preservice teachers taught separate Sport Education seasons at local elementary schools, with each season totaling 540 instructional minutes. Data collection included interviews (formal, focus group, and informal), reflective journals, participation observation, document collection, and video recordings of lessons. Analysis included inductive and deductive analysis using the constant comparative method. Trustworthiness was established using data triangulation, peer debriefing, negative case analysis, member checking, and an audit trail.

Results. Results from the study identified weak assessment literacy upon implementation in the field experience setting. Participants reported a lack of time and feeling pressure to implement all features of the model as barriers to the use of assessment practices. One participant, however, felt the use of assessment afforded him the ability to shift control to the students in the model.

Conclusions. Although the preservice teachers demonstrated an understanding and value of assessment, they struggled to utilize assessment as a critical part of the model-based practice in a field setting. Future research should explore how the message system is understood and enacted in different contextual settings.
Physical Education Teacher Education (Pete) 2.0: Pre-service Teachers’ Perceptions on Developing Digital Twitter Skills during PETE training

Thursday, 26th July - 08:30 - Oral - (Student) Teacher learning and digital technology - Oral

Dr. Brendon Hyndman (Charles Sturt University), Dr. Stephen Harvey (Ohio University)

Background and Purpose: The advent of Web 2.0 technologies such as Twitter reflect an improved capacity for global educative collaboration. Despite such potential, there has been a paucity of research determining the potential of social media within Physical Education Teacher Education (Pete). The aim of this paper was to fill a gap in the international literature pertaining to pre-service teachers’ (PST) perceptions of the facilitators and barriers to using Twitter during PETE training.

Methods: Pre-service teachers (n=33) enrolled at a regional Australian university were recruited to participate in the research via email invitation at the end of the first teaching semester, 2017. Online questionnaires were administered by a third party to gauge the PSTs’ perceptions of using the Twitter platform for learning within PETE. Thematic analyses were conducted to investigate the open-ended responses from the survey, underpinned by a constructivist theoretical framework for online learning in adults.

Results: It was revealed within the study that PSTs perceived a myriad of facilitators across six constructivist principles that included authentic learning, collaborative learning, facilitating learning, high quality learning, interactive learning and learner-centred learning. Despite a significant digital movement in education over the past decade and moving content online, PSTs shared concerns about introducing too much technology alongside privacy and plagiarism concerns with using such a public forum.

Conclusions/Implications: Findings from the study will be expanded upon in the presentation according to the multiple constructivist online learning principles that can be met through Twitter. The PETE students’ concerns suggest PSTs must be critically reflective of Twitter’s appropriateness in a public forum for their own professional learning and application to students’ learning within HPE classes. The study provides guidance to PETE providers as to whether improving digital learning in the Twitter social media space is an important inclusion both now and into the future.
Implementation of OneNote as a tool to promote partnership in learning and teaching in PETE: learner understanding and motivation of preservice physical education teachers

Thursday, 26th July - 08:30 - Oral - (Student) Teacher learning and digital technology - Oral

Prof. Rui Marcelino (University Institute of Maia - ISMAI), Prof. Mariana Cunha (University Institute of Maia - ISMAI), Dr. Rui Araújo (Faculty of Sport, University of Porto), Prof. Júlia Castro (University Institute of Maia - ISMAI)

Introduction
Higher Education best practices suggested partnership as a relationship in which all participants are actively engaged in and stand to gain from the process of learning and working together (HEA, 2014). Nowadays, technology is a key dimension of teaching and learning, as such that the education landscape has evolve to accommodate the increasing use of technological tools and to take advantage of their benefits to teaching and learning on a global scale (Gobbo & Girardi, 2001). It's well know that when students are allowed to have their own control on the learning materials and learning pace at the same times (learner-centred teaching), they experienced a change in the learning process (Hunter, 2012). We aim to investigate Physical Education Teaching Education (PETE) students’ perceptions about the implementation of the collaborative platform OneNote.

Methods
148 Portuguese PETE students (divided in 8 different classes of 18 students each) were introduced in the OneNote as a platform to study the Physical Education Teaching Models (Metzler, 2011). Each class were assigned to study in depth one of the eight models, and integrate their searches results in their OneNote shared with the class teacher. After six weeks (2 classroom/week) all students reply to a 21 questions survey, adapted from Liaw, Huang, & Chen (2007). Twenty-four randomly students were organized in 3 focus group to deepen their perceptions about their learning understanding and motivation for the technology integration in the teaching and learning process as opposed to the expositive method (traditional).

Results
Survey results shows some reluctance to adopt OneNote as a learning tool alternative to the traditional method. Focus group reveal that this reluctance is due to the lack of knowledge of the tool potentialities and to the fact that they are not accustomed to using a strategy in which they are necessarily more active.
**Information And Communication Technology (Ict) Integrated Into Physical Education (Pe) Lessons: Learning And Teaching Perspectives**

**Dr. Pascal Legrain (University of Bordeaux)**

**Background:** New technology has come to be regarded as an integral part of sport practice today. Although PE teachers regularly question the value of conventional teaching aids with respect to students’ motivation and motor learning (Thomas & Stratton, 2007), few of them integrate ICT into the PE lessons. The purpose of this presentation is to present an integrative model which has been tested regarding the impact of ICT on pupils' motivation, knowledge and skills in PE (Legrain et al., 2015).

**Methods:** Ninety-six pupils (44 boys and 52 girls; \(M_{\text{age}} = 12.40 \text{ years}\)) were assigned to either the ICT or the traditional teaching (TT) condition of a quasi-experimental design. Due to the relatively small sample size, the proposed model was specified as a path analysis, using the robust maximum likelihood method with EQS 6.1 (Bentler, 1993). It contained four exogenous variables (i.e., the experimental condition, teacher's autonomy support, pre-test basic need satisfaction, and pre-test motor performance) and four endogenous variables (i.e., post-test basic need satisfaction, self-determined motivation, cognitive skills, and motor performance).

**Results:** Results showed that an ICT environment led to higher psychological need satisfaction, specifically when pupils perceived the learning process was conducted by a perceived autonomy-supportive teacher during gymnastics lessons. Results from path-analyses supported the hypotheses that (a) perception of autonomy support from teachers satisfies students' basic psychological needs; (b) basic needs satisfaction, in turn leads to greater self-determined motivation, which (c) then contributes to the enhancement of cognitive skills and motor performance.

**Conclusions:** This study suggests that the integration of ICT could be an interesting alternative strategy to enhance children's self-determined motivation for learning, and thus help them acquire new motor skills. These results are discussed with regard to disciplinary and transdisciplinary educational challenges. Pedagogical precautions for teacher training are also addressed with regard to teachers' professional needs.
**Draw me a picture:** Using a modified photo-voice method to investigate a National HPE curriculum resource

**Thursday, 26th July - 08:30 - Oral - (Student) Teacher learning and digital technology - Oral**

**Dr. Stephen Berg (The University of British Columbia), Dr. Daniel Robinson (St. Francis Xavier University), Dr. Lauren Sulz (University of Alberta), Dr. Douglas Gleddie (University of Alberta)**

**Background:** In this research, we investigated the implementation of a school-based education program meant to improve students’ (i.e., those in primary grades K-3) knowledge, attitudes, and behavioural intentions related to physical activity and healthy eating/nutrition. The program, *At My Best,* is a free comprehensive curriculum-supported toolkit designed to promote and develop children's overall wellness. Though a number of similar studies have investigated other school-based curricular interventions (Robinson, Berg, & Gleddie, 2018), none as of yet have investigated the implementation of Physical and Health Education Canada's *At My Best K-3* national resource. **Participants & School Selection:** Six primary-grade classes in five Canadian provinces participated in the implementation of this “intervention” program; 20-30 participants (approximately 5-8 students per class) took part as research participants. **Data Collection and Analysis:** Once each class completed the *At My Best* program, we conducted a drawing-telling method with all students in the classrooms in which they completed drawings in response to four questions/prompts related to *At My Best* and their own wellness. This drawing-telling method helps children “capture meaning beyond words, but words can help situate the expressive meaning of the drawing within a specific framework and context” (Freeman & Mathison, 2009, p. 127). Upon completion of the whole class drawing activity, we then interviewed pairs of students (i.e., the participants) who were classified by their teachers as “engaged” or “not-so-engaged.” For our analysis, we took digital pictures of all the drawings and asked participants to elaborate and explain their drawings. These interviews were audio-recorded; the transcribed interviews allowed for thematic analysis to occur. **Conclusions:** Findings from this study are currently being analyzed and will provide important information related to the implementation of this program, as well as other similar early-years intervention programs across Canada and elsewhere.
Physical Education Teacher Education programmes: A European perspective

Thursday, 26th July - 15:15 - Symposium - Symposium

Dr. ZULEYHA AVSAR (Uludag University), Mrs. Ozlem Sahin (Uludag University), Prof. Ann MacPhail (University of Limerick)

Background and purpose:
Professional tendencies of physical education teachers are influenced by their personal experiences as well as the physical education teacher education (PETE) programmes in which they are educated (Lawson, 1983). This project therefore aimed to share, explore and understand PETE curricula across Europe and identify the best practices.

Summary of the main points:
We present information and practices related to PETE at the initial, induction and in-service stages in primary and post-primary levels in twenty-five Erasmus+ Programme Countries. The paper on initial PETE refers to entrance requirements, graduation, content of the curriculum and pedagogical practices. The induction and in-service papers each refer to how the respective stages of PETE are structured and who is responsible for the enactment.

Conference aims and themes:
This symposium addresses the conference main theme by empowering PETE systems and the sub-theme by supporting the PETE experts’ professional learning through presenting the best PETE practices.

Methods:
PETE experts selected by purposive sampling from twenty-five European countries shared their PETE curricula and best practices, focusing particularly on the three elements of the teacher education continuum, i.e. initial, induction and in-service. Data was collected through a semi-structured template that informed the experts’ presentation of the initial, induction and in-service procedures and experiences in their respective countries. Question and answer sessions after each presentation allowed for clarification and further information to be collected. All presentations were transcribed, coded and thematically analysed on the constant comparative method (Glaser & Strauss, 1967; Patton, 1990; Neuman, 2012).

Conclusions and implications:
This project is considered to create an important reference point in PETE, given there is no other such comparative study. The symposium (i) encourages all involved in PETE to observe and evaluate best practices in Europe, and (ii) encourages PETE scholars to work and collaborate with colleagues from other countries.
Self-study has captured the interests of many researchers whose studies seek to develop a critically reflective approach to understanding teaching practice grounded in the everyday practicalities of their own unique situations. In this symposium we explore the interplay of scholarship and practice in teaching and teacher education, and consider the value of self-study in highlighting the emerging conflicts, dilemmas, and incongruities arising within the pedagogies for contemporary practice. Each presentation demonstrates the diversity in how physical education scholars view and use self-study to carry out and inform their scholarship and practice, particularly in respect to moving between changes, impacts, and implications for self, practice, students, and programs when enacting such inquiry. This also includes the dual roles of communicating newly gained understanding with others in the teaching and teacher education communities, and enacting these new and improved understandings of self, practice, and learning in the classes they teach.
The symposium on Transformative Learning and Teaching in Physical Education aims to engage with some of the major challenges and opportunities which shape and define the part physical education and sports pedagogy can play in reshaping education futures. This context raises demanding issues about learners' experiences in physical education and the extent to which teachers' consider themselves sufficiently empowered to connect with innovative futures and the greater realisation of changing societal objectives. The papers supporting the symposium therefore reflect from contrasting perspectives a focus on creating thriving and sustainable futures. From a theoretical perspective Nicola Carse begins the symposium using an ecological framework and complexity principles as the basis for analysing teacher professional learning and professionalism as a career-long endeavour. Thereafter, from a school perspective, Justine MacLean and Andrew Horrell critically review the physical education teacher as an agent of policy and curriculum change and the role professional learning communities' play in school based curriculum development. The symposium concludes with Shirley Gray reviewing from a practice perspective, the part teachers' pedagogical practices can play in creating autonomy-supportive learning environments which are capable of improving health and wellbeing in physical education.
Physical Education in China: Innovation, Impact and Implication

Thursday, 26th July - 15:15 - Symposium - Symposium

Prof. Jinxia Dong (Peking University), Dr. Bo Wang (Capital Sports University of Physical Education and Sports), Dr. Yan Liang (China Women's University), Ms. Yijing Zhong (Peking University)

The rapid rise of China within the past 30 years has generated world curiosities in the most populated country where vigorous innovations and reforms have been witnessed in the field of physical education. For example, PE classes increased from 2 to 4 or 5 times a week for primary schools and soccer becomes compulsory for all students. All this is rarely seen in other parts of the world. What is the motive for China to promote physical education so vigorously? What innovations have been created? How are they implemented in practice? What impacts have they had, and will further have, on Chinese educational institutions and stakeholders involved? What is the future of physical education in the rising world power? All these issues deserve special consideration. Thus, we propose the symposium: “Physical Education in China: Innovation Impact and Implication”. It will bring experts and scholars from different disciplinary backgrounds to present their latest research findings about physical education in China to provide a platform for understanding the recent development of physical education reform in the Eastern nation.

This symposium will consist of four presentations with the start of “Physical Education Reform in China in 21st Century: Challenges, Changes, and Consequences” by Professor Dong Jinxia, followed by Dr. Liang Yan's “Could Physical Education Conquer the Decrease of Fitness Level of Female Undergraduate Students in China?” and Dr. Wang Bo's “Impact of Soccer Training on Students' Cognition in China's Primary Schools” and concluded by ZHong Yijing's “Study of the Effects of EF-Oriented Physical Education Program on Primary School Children in Beijing”. These four papers, though separately written and presented, will jointly present to the audience the broader picture of Chinese physical education in the 21st century. The moderator for this symposium will be Professor Dong Jinxia from Peking University.
PETE students’ preferences and experiences with Constraints-based Didactics

Thursday, 26th July - 15:15 - Oral - PETE Students learning and pedagogy - Oral

Dr. Jan M Loftesnes (West Norway University of Applied Sciences), Mr. Dag Ove Hovdal (University of Agder)

Introduction: According to a Norwegian study by (Säfvenbom, Geldhof, & Haugen, 2014) 44 % of the students (N=2055) expressed a lack of motivation in PE, 12 % did not like the subject and 32% were dissatisfied with the way PE was presented to them. On the other side sports participating subjects experienced more contentment with PE than those not active. Research have found that Norwegian PETE-teachers at University level gave rather traditional lessons (Moen & Green, 2012).

Our study investigated undergraduate PETE students’ preferences and experiences with a) traditional didactics and b) a Constraints-based Didactic (CBD) (Loftesnes, 2016), measured by several different motivational goals: enjoyment, team relatedness, group relatedness, codetermination and movement skill (Deci & Ryan, 2002).

Method: 96 undergraduate PETE-students (36% female) participated over a period of three weeks and were divided into two groups learning basketball. Group 1 participated in three double practical lessons using traditional didactics/teaching style followed by one double practical lesson of CBD. Group 2 was given three double lessons of CBD followed by one double lesson using traditional didactic/teaching style. Result scores, didactical style preference and level of enjoyment were plotted using SPSS (2016) nonparametric, One-Sample Binomial Test.

Result: The score (1-9) showed that both groups reported high scores on enjoyment (group one n=53, 7.80 sd=.912 and group two n=43, 7.63 SD=1.346). Newer the less, CBD was significantly preferred to the traditional didactics in the conditions enjoyment (N=96) (p=.000), team relatedness (p=.000) and codetermination (p=.000), but not in the condition individual skill (p=.064) and group relatedness (p=.305).

Discussion: Lessons given were rated high in the condition enjoyment; this was not the case in the condition individual skill. The CDB students’ preferences show that, if the goal for PE and PETE students is motivation, CDB should be considered as a possible teaching style.
Professional knowledge of PE teacher candidates for education for sustainable development (ESD)

Mrs. Julia Herb (University of Freiburg), Prof. Petra Giess-Stueber (University of Freiburg), Mr. Mathieu Lask-schoenmaekers (University of Freiburg)

Background and Purpose
ESD empowers people to change the way they think and work towards a sustainable future. Sustainable development topics like health, education, environmental protection, or mobility are inherent in sports and may be addressed within PE. The purpose of this paper is to show how we can contribute to professional knowledge of PE teacher candidates (Hellberg-Rode & Schrüfer, 2016) by implementing ESD within PE teacher education.

Methods
The teaching unit consisted of a theoretical part and a practical part (sport climbing). Additionally we linked contents of both parts during a 5-day field trip. Before (T1) and after the teaching unit (T2) a survey was conducted (N = 18). The following variables were measured in the intervention group and in a control group (only T1): ESD content knowledge (CK), self-efficacy (SE) and enthusiasm (EN) for ESD as well as decision making in daily life (DM).

Results
There was no significant difference between the ESD and control groups regarding CK, EN, and DM, and a tendency towards SE being higher in the ESD group, t(55) = 2.02, p = .05, at T1. During the ESD seminar, CK increased significantly from T1 to T2 (Cohen's $d = .09 – 2.6, p < .05$). There was a significant but small increase in EN ($d = .06, p < .05$) but not in SE and DM.

Conclusions and Implications
Whereas participants already had a high degree of self-efficacy and enthusiasm for ESD in the beginning, content knowledge was increased significantly. We encourage university scholars, to implement ESD topics within PE teacher education in order to promote teacher candidates to think and work towards a sustainable future.

References
The influence of a methods course in physical education on preservice classroom teachers’ acquisition of practical knowledge

Thursday, 26th July - 15:15 - Oral - PETE Students learning and pedagogy - Oral

Dr. Jan-Erik Romar (Åbo Akademi University)

Many classroom teachers have limited content knowledge, do not have appropriate skills or knowledge for good teaching and do not feel confident teaching physical education (Tsangaridou, 2012). While teacher knowledge and teaching practice exists in an interdependent relationship, practical knowledge has been used in describing how teachers integrate knowledge from different sources into conceptual frameworks that guide their actions in practice (Verloop, Van Driel, & Meijer, 2001). Given the short time that preservice classroom teachers have to learn to teach physical education during teacher education program, it is worth to focus on the understanding of their learning in its natural setting. Therefore, this study was framed with an explorative approach where preservice classroom teachers participated in physical education learning activities and the intension was to investigate the construction (content) of their practical knowledge. Data collection was integrated into a methods course in physical education and included written journals in which 26 preservice teachers described significant didactical milestones (practical knowledge) that will guide their future teaching in physical education. The aim of this process was to make implicit learning explicit and to give preservice teachers the possibility to reflect on coursework in the form of structuring their practical knowledge. The qualitative analysis involved identifying the content of their milestones and categorising them based on common themes and categories. The main themes were the curriculum (what) that is taught by the teacher (who) through instructional strategies (how) to the students (whom) in the classroom (where). Preliminary results showed that the content of these preservice classroom teachers’ practical knowledge was mainly pedagogical and focused most often on instructional strategies. Therefore, by exploring and understanding preservice classroom teachers’ learning of practical knowledge in physical education, we can help to bridge the gap between theory at university and the practice of teaching.
Physical education: How to increase reflections in the social domain

Thursday, 26th July - 15:15 - Oral - PETE Students learning and pedagogy - Oral

Mr. Dag Ove Hovdal (University of Agder), Dr. Jan M Loftesnes (West Norway University of Applied Sciences)

Physical education (PE) is a socially constructed (Berger & Luckmann, 1984; Burr, 2015) subject that has the possibility to contribute to young people's development in the physical, social, affective and cognitive domain (Bailey et al., 2009). Research found that Norwegian PETE-teachers at University level gave rather traditional lessons (Moen & Green, 2012) and by that giving no emphasis on students' development of social skills and reflections.

Our study investigated undergraduate PETE students' social reflections and experiences with a) traditional didactics (with instruction method and emphasis on performance outcome) and b) Constraints-based Didactic (CBD) (with emphasis on a non-linear pedagogy) (Loftesnes, 2016) so that the subjects would be able to see both didactic approaches. Students experiences was given two questions; 1) which didactic gave most reflections regarding their own and others behaviour, and 2) which didactic gave most reflections regarding the connection between emotions, thoughts and behaviour.

Method: 96 undergraduate PETE-students (36% female) participated over a period of three weeks and were divided into two groups learning basketball. Group 1 participated in three double practical lessons using traditional didactics/teaching style followed by one double practical lesson of CBD. Group 2 was given three double lessons of CBD followed by one double lesson using traditional didactic/teaching style. The intervention for increasing the student's reflections was added explicitly in the CBD lessons. Result scores, didactic style preference and level of social reflections were plotted using SPSS (2016).

Result: In questions one, most students preferred CBD (n=71) contra traditional didactics (n=18). In questions two most students preferred CBD (N=67) contra traditional didactic (N=21).

Discussion: The students reported a higher level of reflections in the social domain within CBD. If a goal in physical education is to general educate students (Annerstedt, 2007; Ommundsen, 2016), one should consider explicit learning regarding reflections towards the social domain.
Background: Physical education (PE) has been identified as a place ingrained with homophobic and heterosexist practices (Clarke, 1998). Given this, the discussion of (homo)sexualities in PE has been considered ‘taboo’ (Clarke, 2006). To date, there is minimal research with queer-identified persons in PE (notable exceptions are Sykes, 2011; McGlashan, 2014; Clarke, 2006). Previous empirical work focused on experiences of queer-identified students and teachers. Therefore, little research has analysed the ‘affects’ of PE practices on queer bodies.

Purpose: The purpose of this paper was to understand how PE practices ‘affect’ queer bodies.

Theory: Given the focus on ‘affect’, the author drew on theoretical insights from new materialist (Fox & Alldred, 2016) conceptualizations of Deleuze and Guattari (1983; 1987).

Design & Analysis: Data were generated using critical ethnographic (Thomas, 1993) and post-qualitative methods (Lather & St. Pierre, 2013; St. Pierre, 2013) to investigate affective experiences of queer youth in health-based settings. The ethnography took place at a queer organisation in New Zealand for 5 months. The data used for this paper were generated via 41 interviews (focus group and individual) with 58 queer-identified youth (aged 13-25). Interviews were transcribed verbatim and sent back to the participants as a form of member-checking (Lincoln & Guba, 1985) to increase credibility and plausibility (Merriam, 2009). The author conducted ‘initial coding’ (Saldaña, 2013) by examining data for similarities and differences. After initial coding, the author theoretically coded (Saldaña, 2013) data using ‘new materialist’ data analysis techniques (Jackson, 2013; Ringrose & Coleman, 2013).

Results: Preliminary results indicate that PE pedagogical practices augment and limit ‘what the queer body can do’. In particular, PE practices limit the ways students express their gendered, sexual, or health identities. Importantly, however, queer bodies are augmented in PE because dominant practices provide spaces to foster friendships, enact resistance, and increase students’ confidence.
Exploring Young People’s Experiences of PE: An Intersectional Approach

Thursday, 26th July - 15:15 - Oral - Social Issues - Oral

Ms. Ruth Brazier (Leeds Beckett University)

This presentation is based on findings from my PhD study, which aims to explore different young people’s experiences of PE. Research in PE is dominated by single issue research. While this approach makes valuable contributions to knowledge, it does not enable understandings of young people’s experiences beyond broad categorizations. Adopting an intersectional framework offers the possibilities to explore the complexities of young people's lives, and their influence within PE spaces. Along with intersectionality I have use theoretical resources associated with power, space and identity to analyse how they understand and negotiate these complexities.

The study took place in an inner-city secondary school with higher than average rates of ethnic minority students and those with Special Educational Needs (SEN). Therefore, the study drew provisional boundaries around the categories of ethnicity, disability and gender. 13 girls took part in the study. All were classed as having an SEN and were from varying ethnic backgrounds (7 South Asian, 3 Slovakian, 3 White British). Methodologically, I drew upon student voice principles, foregrounding the young people’s voices. I utilized ethnographic methods, spending 2 years observing practice in the school, and conducted 8 focus groups sessions with each student. Preliminary results illustrate the complexity of these young girls' lives. Although there are some commonalities in identity markers, each girl has a unique story to tell about her PE experience. While each student is affected by dominant power relations and discourses, the ways they negotiate these and construct their own meanings in PE varies. Notions of ‘belonging’ and ‘otherness’ are key to perceptions of, and experiences within PE, but these constructions are highly contextual and fluid. By representing these data in narrative form I hope to foreground the student's voices while offering insights about how power and identity contribute, in different ways, to each girl's experience of PE.
Families young people and health; intersecting racialization and social class

Thursday, 26th July - 15:15 - Oral - Social Issues - Oral

Prof. Symeon Dagkas (Canterbury Christ Church)

Introduction: With the current global economic uncertainties, recession and projected increases in poverty especially amongst young people, understanding how diverse family formations and cultural dispositions toward physical culture and health shape young people's engagement is crucial. Families in this sense are engaged in the cultural transmission of values related to physical culture, which could (re)produce dispositions, agency and perpetuate existing structural inequalities and dispositions. Theoretical Framework & Methods: The discussion developed is based on Ball's (2010) suggestion that it is necessary to look beyond the school establishment if we are to explain inequalities in health, sport and physical culture. The paper draws on social theory in an effort to explore the ways in which the ‘pedagogised’ family in cultivating young peoples dispositions towards physical activity and health. A qualitative methodology was adopted, to better understand 10 families’ perceptions of health and wellbeing and especially participation in physical activity for health and wellbeing. The research involved interviews with whole families (38 participants) to explore determinants to physical activity for health and wellbeing and gain further insights in the way migrant families conceptualise health and wellbeing. A series of accounts of these migrant families’ voices were produced using a thematic analysis. Results and Conclusion: The “pedagogized” family as will be argued in this paper reproduces class distinctions and reinforces existing structural inequalities, especially when markers of habitus in multiple fields are intersecting, with regards to physical culture. I conclude that families within similar social groupings taste and experience inequalities in various forms and levels. As such families adopt diverse (informal) pedagogic practices and dispositions toward physical culture despite being categorised under the same social groupings in society.
Power to the PEople: Reconsidering how concepts of power are used in physical education scholarship

Thursday, 26th July - 15:15 - Oral - Social Issues - Oral

Dr. Dean Barker (University of Gothenburg), Dr. Pär Rylander (University of Gothenburg)

Theories of power form an important element of much scholarship in physical education and health (PEH). Regardless of focus or empirical approach, the ways that scholars conceptualize power have significant implications for how actors and relations between actors come to be understood. This paper has two aims. The first is to provide an overview of the broad ways that power has been conceptualized by PEH scholars in the last 25 years. Such an overview provides insights into broad patterns in theorizing within the field and points to aspects of pedagogy that require further theorizing. To achieve this first aim, we employ Haugaard’s (2010) discussion of power as a ‘family resemblance concept’, which accordingly can be thought of as episodic, dispositional, systemic, power to, power over, empowerment, legitimate and domination. We concentrate on physical education literature in which scholars explicitly refer to, and describe in detail, their conceptions of power. The second aim is to propose a conception of power that has seldom been utilized in PE. Here, we draw on the work of political scientist White (1972) to suggest that power can be understood as an ability to bring about significant and intended changes in one’s environment. Implications of this proposition are discussed in relation to pedagogical research and practice.
Leading professional associations in decentred market times: an Australian response

Thursday, 26th July - 15:15 - Oral - Policy and reform in physical education - Oral

Dr. Sue Whatman (Griffith University), Prof. Dawn Penney (Edith Cowan University)

Eighteen years ago, Penney and Chandler (2000) argued the need for a reorientation and restructuring of physical education (PE) “to address educational needs and interests relevant to the 21st century”. In asking what were the visions of and for the future in PE at that time, a series of questions emerged to guide those invested in the continuing professional development (CPD) of PE teachers and others who serve the profession, and indeed Physical Education Teacher Education (PETE). Drawing on Bernstein (2000), we now ask: What approaches and skills do teachers (still and now) need to develop? What relations do they need to facilitate with colleagues, individuals and other organisations involved in the provision of PE and sport for young people? And, how can professional associations respond when their traditional clientele regard other organisations as able to provide ‘better’ CPD in this de-centred PE curriculum and pedagogy market?

This paper offers a sociology of education lens for examining the changing role of PE professional associations and the challenges they face to stay relevant, retain a leadership profile in the field and stay ‘connected’ in times of increasing ‘alternative’ CPD provision, particularly with proliferating digital professional learning networks via subscribed on-line learning and social media. In our role as National Board members of the Australian Council for Health, Physical Education and Recreation (ACHPER), we share how our position as the peak Australian association for HPE teachers has shifted in these times, how we are recontextualising knowledges across contexts, and changing our voice and message, to respond to these market changes and continue to position ACHPER as a recognised leader in (H)PE CPD.

References

Physical Education Teacher Evaluation In Indiana Highly Reliant On The Principal’s Experience And Perception About The Subject

Thursday, 26th July - 15:15 - Oral - Policy and reform in physical education - Oral

Dr. Sookhenlall Padaruth (Mauritius Institute of Education, Mauritius), Dr. Andrew Eberline (Ball State University, USA), Prof. Thomas Templin (University of Michigan, USA)

American federal policy initiatives, such as the 1965 Elementary and Secondary Education Act (ESEA), A Nation at Risk (ANAR) (1983), No Child Left Behind (NCLB) (2001) and Race to the Top initiative (RTT) (2009) led Indiana to join forty-four other states to design and implement educational reform programs geared towards more rigorous teacher evaluation systems. Indiana mandated the evaluation of teachers based primarily on their teaching performance and student learning via standardized tests. These evaluations may result in reward, retention, or dismissal of teachers involved.

A qualitative case study method was used to investigate principals’ experiences with and perceptions of the evaluation of physical education (PE) teachers. Five elementary, two middle, and two high school principals participated in the study. Inductive analysis and constant comparison were used for data analysis within a social constructivist paradigm.

Results indicated that a rushed implementation, inadequate training of principals, unclear guidelines, heavy workload, and excessive paperwork resulted in considerable subjectivity and ‘rater bias’ (Rowan & Raudenbush, 2016) in the evaluation of Indiana PE teachers. Principals used a variety of lenses and methods to evaluate PE teachers based on teacher characteristics they valued most in PE teachers, such as student physical activity levels, safety, management of behavior, and relationships with students. Principals with coaching experience viewed PE differently from principals who had never coached. Principals with elementary and middle school teaching experience viewed the PE teacher's job differently. Teacher evaluation did not lead to professional development of PE teachers.

The results raised questions on the overall effectiveness of the PE teacher evaluation process and its impact on teaching and learning in PE and professional development (Donaldson et al., 2016). Similar studies should be carried out in other counties and states in the United States to better understand teacher evaluation in PE.
Pre-service teachers’ stories about their assessment experiences in Physical Education: How can we learn from these and improve our own assessment practices?

Thursday, 26th July - 15:15 - Oral - Policy and reform in physical education - Oral

Mr. Ross Williams (Murdoch University)

Whilst there is consensus about important role assessment plays in Physical Education (PE), problems regarding implementation practices have been identified in the literature. These include; focus on skill acquisition at the expense of other curriculum outcomes, poor management of processes, negative views on the value of formal assessment and questionable implementation of assessment practices.

Recent curriculum reforms in PE acknowledge the need to align pedagogy with assessment. These reforms challenge PE teachers to come to terms with the values, purposes and outcomes embedded in the curriculum. Conjecture exists as to whether PE teachers can align their pedagogical processes with assessment so as to accurately and adequately capture student learning associated with curriculum reforms - raising questions of equity. There has been a corresponding call to support the development of assessment literacy among PE teachers to build on their existing knowledge and skills base, to take account of the broader outcomes corresponding with curriculum reform.

In my role as a tertiary PE educator, I wanted to explore how pre-service teachers felt about their preparedness to meet these challenges. This case study focused on the personal perspectives of pre-service PE teachers (n=8) about their assessment experiences in one undergraduate PE unit. Data were collected at the beginning and at the end of the unit. Pre-service teachers were initially asked about their current perceptions and experiences with assessment practices. Following participation in the unit, they were asked to reflect on their experiences during the unit. These reflective processes mirrored the constructivist approach adopted within the course. The identification and documentation of themes emerging from participants’ personal stories, offered rich insights into participants’ experiences of assessment. Although context bound and limited in sample size, this case study offers the potential to inform and improve assessment practices within PE undergraduate programs.

Word Count: 296
A New Critical Pedagogy for Reforming Physical Education in Precarious Times

Thursday, 26th July - 15:15 - Oral - Policy and reform in physical education - Oral

Prof. David Kirk (University of Strathclyde)

This paper seeks to outline a context for the reform and redesign of school physical education through a new critical pedagogy. I use the concept of precarity as a lens through which to view ongoing and emerging challenges. Economic crises and austerity (Clark and Heath, 2014), small government (Judt, 2010), the privatisation of public resources (Meek, 2014), digitisation and social media (Goodyear et al, 2017), growing inequality (Atkinson, 2015), and the rise of the Precariat, ‘the new dangerous social class’ (Standing, 2016), have generated new challenges for education. Given current government policy in Scotland centred on reducing social inequality, the Precariat provides an opportunity to take a much more nuanced view of social inequality than we have previously been able to. Moreover, it allows us to problematize how we deploy social class in our analyses of the challenges facing schools and education now and in the future (Savage et al., 2015).

A second focus for this paper is the notion of a new critical pedagogy. There has been something of a retreat from the idea of critical pedagogy among the physical education research community in recent years, with for example Tinning’s (2002) influential advocacy of a ‘modest pedagogy’ and Enright et al’s (2014) proposal for Appreciative Inquiry. I will argue that now more than ever physical educators need to be alive to the serious social and economic challenges that shape young people’s health, happiness and life chances. I will seek to demonstrate how this new critical pedagogy, informed by Rorty’s (1999) pragmatism and a politics of possibility and social hope, can create an agenda for reform and redesign that involves networked learning communities of teachers and pupils in partnership with external agents and agencies such as researchers and policy-makers (Day and Townsend, 2009).
Health.edu – Sport-related health competence of pupils

Thursday, 26th July - 15:15 - Oral - Health focussed approaches in physical education and sport - Oral

Mrs. Katharina Ptack (Universität Bayreuth), Dr. Helmut Strobl (Universität Bayreuth), Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Susanne Tittlbach (Universität Bayreuth)

Introduction
One aim in Physical Education (PE) is to develop pupils’ sport-related health competence (SRHC), which means they can take over responsibility for their own health and are able to practice sports autonomously in a health enhancing manner. On this basis, the purpose of the Health.edu study (BMBF grant 01EL1421D) is to improve pupils’ SRHC by a participatory approach that consists of a cooperative planning process. The study is evaluated regarding program implementation and effectiveness.

Methods
A one year cooperative planning process was carried out at four intervention schools (IG). About five meetings were hold at each school, where different stakeholders (PE teachers, pupils, principals, scientists) conceptualized and evaluated PE lessons regarding the promotion of SRHC. Four other schools carried out their normal PE lessons (control group (CG)). SRHC was measured in a pre-post-test-design by a standardized test designed to assess SRHC. The evaluation of program implementation leads to the exclusion of one intervention school, where the intervention did not work well due to missing teachers’ health awareness and commitment. The total pre-post-sample includes 187 pupils (11-17 years, M=14.42, SD=1.28; 50.3% IG, 54% female). Data is analyzed by a one-way repeated-measure ANOVA.

Results
Results show a significant improvement of SRHC for the total sample between the school year ($F_{1,179}=10.29; p=.002; \eta^2=.054$), significantly higher for pupils in IG compared to those in CG ($F_{1,179}=3.93; p=.049; \eta^2=.021$). Girls’ and boys’ development is similar, although girls constantly show a significantly higher SRHC ($F_{1,179}=8.64; p=.004; \eta^2=.046$).

Discussion
The intervention is successful in improving pupils’ SRHC at three schools by a cooperative planning process. The second project phase aims at generating good-practice-examples including a gender-specific approach.
Health promotion interventions in sports clubs – a mapping review

Thursday, 26th July - 15:15 - Oral - Health focussed approaches in physical education and sport - Oral

Dr. Susanna Geidne (Örebro university), Dr. Aurelie Van Hoye (University of Lorraine)

**Background and purpose:** The Ottawa Charter (1986) highlighted the importance of a settings-based approach to health promotion (HP), which has anchored in settings such as schools and cities, and has potential in areas such as sports clubs. Practice in the latter is ongoing but is not routinely captured in reviews due to limitations in study design. Therefore the purpose of this review is to identify and map key strategies to develop interventions in sports clubs including published literature of all study designs.

**Methods:** Mapping reviews are used to identify trends and gaps in new areas of research, often to commission future projects. A literature search was carried out between 1986 and 1st May 2017 in databases, e.g. Medline, SPORTdiscus, ERIC and PsycInfo. Examples of keywords were health promotion, sport clubs and intervention. The content was analyzed using a socio-ecological framework within the sports clubs setting that distinguishes different levels of interventions (intrapersonal, interpersonal, institutional, community and policy), layers of the setting (micro, meso, macro) as well as targeted health behaviors, measurement used and facilitators or barriers.

**Results:** Of the 58 studies included in this review, almost half are from Australia. Publication date started in 1995, showing an increase in the number of articles over the years. The most targeted behaviors were alcohol followed by physical activity or sport participation. HP interventions in sports clubs are mostly focused on single health behaviors and also at targeting a single level of intervention in macro or micro layer. Only two studies used validated measures of HP.

**Conclusions and implications:** The settings approach to sports clubs is in its infancy but growing. Increased knowledge on HP interventions in sports clubs can help to prompt further studies but this must be supported by enhanced evaluation and the use of validated HP measurements.
The effects of “Keep the Balance” intervention programme

Thursday, 26th July - 15:15 - Oral - Health focussed approaches in physical education and sport - Oral

Dr. Renata Czarniecka (Józef Piłsudski University of Physical Education in Warsaw, Poland), Dr. Elżbieta Olszewska (Józef Piłsudski University of Physical Education in Warsaw, Poland), Prof. Jadwiga Charzewska (National Food and Nutrition Institute, Warsaw, Poland), Prof. Michal Lenartowicz (Józef Piłsudski University of Physical Education in Warsaw, Poland)

The results of surveys conducted among Polish children and adolescents show a continuing increase of overweight and obesity.

The main goal of the intervention programme called “Keep the Balance” was to implement proper nutrition practices and increase PA in children and adolescents Poland-wide as well as to establish healthy environments and close cooperation between pupils, teachers and parents. Schools and pre-school institutions were invited to join the programme, which was implemented in 100 institutions (25 from each of the four educational stages: pre-schools, primary, post-primary and secondary school) in each of 16 Polish provinces (1600 institutions overall). The programme was supported by a grant from Switzerland through the Swiss Contribution to the enlarged European Union (KIK/34). Province coordinators were trained and specially designed guidelines for teachers, parents and students were issued and delivered to schools. In 2013 initial assessment of selected institutions was conducted with regards to the knowledge, attitudes and practices concerning nutrition and PA of children and youth under scrutiny. School teachers were trained how to introduce changes in their school environment that would promote healthy nutrition and PA in line with the programme outlines.

After two years of programme implementation, evaluation of the results was carried out and 1027 institutions which met requirements and have successfully implemented the program received confirmation of its activities - “Certificate School/Pre-school Friendly to Nutrition and PA”.

The most significant results observed concerned improvement in healthy nutrition knowledge (overall by 23.2%) and improvement in physical fitness tests output. Sideline effect was also small (not statistically significant) decline in the overweight and obese of students.

The intervention programme “Keep the balance” shows that simultaneous healthy nutrition education and PA education and encouragement may be an effective way of reducing the negative overweight and obesity tendency in children and adolescents.
**Measuring sedentary and active behaviours in university students: The validity of the Italian version of the Simple Physical Activity Questionnaire**

Thursday, 26th July - 15:15 - Oral - Health focussed approaches in physical education and sport - Oral

*Prof. Attilio Carraro (University of Padua), Dr. Erica Gobbi (University of Padua)*

**Aim:** Measurement of habitual physical activity (PA) is a challenging task. PA questionnaires are easy to use, but their accuracy has been questioned. The Simple Physical Activity Questionnaire (SIMPAQ), a recently developed questionnaire, uses an interview format to estimate time in bed, structured exercise participation, and incidental or non-structured PA (Rosenbaum & Ward, 2016). The purpose of the present study was to examine the validity of the Italian version of the SIMPAQ and the levels of PA among university students, assuming that this is a population at high risk of sedentary behaviours (Maselli, Gobbi & Carraro, 2017).

**Methods:** After providing informed consent, participants provided information about anthropometry and demographic background. Accelerometer data was collected for seven consecutive days among 106 participants (57 women). Telephone interviews were conducted to complete the SIMPAQ and the IPAQ at the end of the week wearing the accelerometer.

**Results:** Significant positive correlations were found between the accelerometer-based daily moderate-to-vigorous PA and the SIMPAQ measures of incidental and structured PA summed up ($r=.21; p<.05$), and between SIMPAQ walking time and objective lifestyle intensity time ($r=.41; p<.001$). High amount of out-of-the-bed sedentary time ($M=4850.6$, $SD=679.2$ min/week) and very low time in vigorous and very vigorous activities ($M=32.2$, $SD=20.6$ min/week) were recorded.

**Conclusions:** The findings suggest that the Italian version of the SIMPAQ is an appropriate instrument to assess PA daily levels also among university students and confirm the call for actions to motivate young people to be more physically active.

**References**


Transformational Teaching: Do student teachers in Scotland have an effect on the pupils they teach?

Thursday, 26th July - 15:15 - Oral - Teaching - Oral

*Mr. Murray Craig (The University of Edinburgh), Dr. Paul McMillan (University of Edinburgh), Dr. Andrew Horrell (The University of Edinburgh), Prof. John Sproule (University of Edinburgh)*

The extent to which teachers’ practice can have an impact on learning has increasingly become an area of interest across the academic literature (e.g. Hattie, 2009). In physical education (PE), Beauchamp et al., (2010), developed the Transformational Teaching Questionnaire (TTQ). Key assumptions underpinning the TTQ are that PE teachers can inspire learners by displaying behaviours that foster trust, confidence, empowerment, and higher order thinking. At present, it is unclear what learners’ perceptions are of student teachers in Scotland.

A study was designed using the TTQ to measure the impact of student PE teachers on the learners they teach. Adopting a quantitative design, these teachers (N = 14: M = 8; F = 6) were drawn from the 2017-2018 cohort completing a post-graduate teaching qualification at a Scottish university. Students completed 3 x 6-week teaching placements and one class (N = 25) completed an electronic version of the TTQ in the final weeks of each placement.

At the time of writing this abstract, we are yet to complete analysis on the full data set. While analysis will be complete by July 2018, our initial findings reveal a largely positive picture: these teachers are managing to foster a sense of trust with learners and inspire forms of confidence for learners to actively engage in activities during PE lessons. Our complete analysis will make a specific contribution to the subtheme ‘transformational teaching’ by reporting findings about how Scottish PE teachers’ practices can make a positive impact on learners.


Responsive Teaching: A “Difficult Balance”?

Thursday, 26th July - 15:15 - Oral - Teaching - Oral

Dr. Paul McMillan (University of Edinburgh)

Responsive forms of practice, where teachers make thoughtful decisions about, and changes to, their actions in the immediate act of teaching have been acknowledged as the “gold standard” for the profession due to the potential for aligning teaching to learners’ needs (Parsons and Vaughn, 2016). However, a concern has been voiced about how straightforwardly connecting responsive practice with the needs of learners, treats adaptability as a “technical teaching practice…invoked by the teacher” (Vagle, 2016).

To sketch out a wider frame for the adjustments teachers make to their practices, this study conducted a qualitative investigation of six secondary physical education teachers recognised for their responsive capabilities. There were two inter-related phases to the research project: the first phase involved individually tracking six teachers in their school contexts and observing 88 lessons; the second phase involved conducting a semi-structured interview with each teacher to explore the insights gained during the observations.

Close analysis revealed that participants enacted a repertoire of teaching approaches by ‘responding’ to situations in the immediate act of teaching, confirming one aspect driving their practices was the desire to meet the needs of learners. A striking finding, which is not adequately captured in existing literature, was that teachers and learners shaped the dynamics of the classroom, requiring negotiation of learning intentions and teacher judgement about adjusting practices against the changeable nature of teacher-learner relationships. One participant summarised this dynamic picture as a “difficult balance” between remaining alert to the “enthusiasm” of learners while fostering relationships with them and maintaining a degree of control in relation to learning goals for classes.


‘Strategy as a pedagogic device’ – integrating learning about, through and in movement in senior PE.

Thursday, 26th July - 15:15 - Oral - Teaching - Oral

Dr. Maree DinanThompson (James Cook University)

Internationally, Arnold’s (1979, 1985, 1988) seminal concepts of learning ‘about, through and in’ movement have provided an ideological and educative framework for the integration of curriculum, assessment and pedagogy in physical education (PE). Research has demonstrated some complexities in assuring all three concepts are valued in the teaching and assessment in senior PE, in particular how to legitimate the integrated concepts in high stakes assessment (Brown & Penney, 2012; Stolz & Thorburn, 2017). The release of the Queensland Curriculum and Assessment Authority (QCAA) (2017) new senior PE syllabus provides ‘strategy’ as a pedagogic action (DinanThompson, 2013) to make explicit the dynamic and interrelated nature of curriculum, pedagogy and assessment. This paper presents a qualitative study that is an early exploration of ‘strategy’ as a pedagogic action. Five senior PE teachers were interviewed to gain insights on ‘strategy’ as legitimation of learning and assessing ‘about, through and in movement’. As a bounded case study, data collection methods included one-on-one interviews and document analysis. Content analysis (Patton, 2002) was utilised to code the data into themes. Results show potential for ‘strategy’ defined as a “method or combined plan of actions devised to bring about a determined outcome; the strategy emerges from the integration of a scientific base (biophysical, sociocultural, psychological) and physical activity context to optimise the performance and engagement of self and others” (QCAA, 2017, p.106) to make visible in learning and assessment the integration of learning about, through and in movement. However, a routine interpretation is the use of ‘strategy’ in motor learning, largely in offensive and defensive play in games and sports. As the syllabus encourages participation and performance in a variety of physical activities, including aesthetic, target, performance, invasion, net and court, and striking and fielding, a challenge is set to provoke interpretations about what ‘strategy’ means, and can do, for quality senior PE.
Student engagement is seen as critical to success for both learners and HEI’s alike, and has received much attention (Dunne et al. 2017). Having student-cantered approaches are seen as key to this engagement especially when considering those students often seen as ‘hard to reach’ (Dunne et al. 2017). Although by no means a very new concept, student-centred approaches that call upon co-collaboration in the planning and delivery of education is gaining more widespread current use (Sims, Luebson & Guggiari-Peel 2017).

A collaborative pedagogy was used on the BSc Sport Coaching year group for the ‘Research Methods’ module at Level 5. This module, as many others involving research methods, had been blighted by low attendance and poor engagement in the past. Summative and formative assessments were set out by the module leader, alongside a timetabled 4-week ‘introductory; phase of the module. Students were then left to design the delivery and content of the module in collaboration with teaching staff for the remaining year, to enable them to learn and undertake the formative and summative assessments.

The issues and impact of this approach are discussed in this oral presentation under the headings of:
1. When “what students ask for isn’t what they want”
2. Learners’ wants vs. Learners’ needs
3. Learners as consumers
4. Is passive learning ‘OK’?
5. Mezirow’s Transformational Learning in this context.

To conclude, collaborative pedagogical approaches are neither straight forward or meet the wants of many learners. The debate between meeting learners’ wants vs. meeting their needs, is one that has to have greater coverage if we are to use effective pedagogies to transform the educational experiences of our learners.

Key Terms: collaboration; collaborative pedagogy; sport pedagogy; sport coaching; learner needs; learner wants; learner-centred approaches.
“Learning to trust our peers has been so cool and important to me”: The development of learning communities in a Sport Education season

Thursday, 26th July - 15:15 - Oral - Sport education and positive youth development - Oral

Dr. Carla Luguetti (University of Sao Paulo), Mrs. Priscila Lopes (University of Sao Paulo), Mr. Diego Sobrinho (University of Sao Paulo), Dr. Michele Carbinatto (University of Sao Paulo), Prof. Ann MacPhail (University of Limerick)

**Background and purpose:** Several studies demonstrate that Sport Education (SE) supports the development of an authentic experience of sport (Hastie, Ojeda, & Luquin, 2011; Hastie, 2011; Wallhead & O'Sullivan, 2005). However, the ‘messiness’ attached to the reality of effectively enacting SE is less prominent in the literature. The aim of this study is therefore to capture the complexity, tensions and struggles (for both lecturers and pre-service physical education teachers (PSTs) of delivering and experiencing an authentic SE season.

**Method:** Participatory action research framed this 12-week study. Participants included 33 PST, four lecturers (one familiar with SE and three familiar with Artistic Gymnastics) at a university in Brazil and a European critical friend who was contacted regularly throughout the Sport Education season for advice on how best to progress the ongoing SE season. Throughout a four-month period, data was collected weekly and included: (a) weekly collaborative teacher group meetings after each class, (b) student reflective diaries, (c) lead teacher weekly observations noted as field notes, (d) student generated artefacts, and (e) student focus groups. Data analysis involved inductive, constant comparison and member-checking methods.

**Results:** Results conveyed, a) the relationship of trust and interdependence between the lecturers who implemented SE, b) how PSTs created a safe environment that allowed them to overcome fear, and c) how lecturers and PSTs negotiated the different levels of PSTs’ engagement during the season and the associated feeling of frustration.

**Conclusions and implications:** Lecturers and PSTs developed into two separate communities of learners. Based on the limited amount of research on communities of learners in SE, future studies should continue to examine the effectiveness of a community of learners within the SE context and specifically encourage lecturers and PSTs to work together as one learning community, learning from, and with, each other.
Students and teachers perceptions of an interschool Sport Education League for supporting transition between Primary and Secondary School

Thursday, 26th July - 15:15 - Oral - Sport education and positive youth development - Oral

Dr. David Gutierrez-Diaz del Campo (University of Castilla-La Mancha), Dr. Luis M. García-López (University of Castilla-La Mancha), Mrs. Yessica Segovia-Domínguez (University of Castilla-La Mancha), Dr. David Sanchez-Mora Moreno (University of Castilla-La Mancha)

This article examines the reactions and participation of students (N= 209) and teachers (N= 6) as they participated in a project to improve the transition of students from Primary Education School to Secondary School. A Sport Education League was developed, which included all the public Primary Schools (n= 4) and Secondary Schools (n = 1) of a Spanish town, was developed from the original idea of Hastie, Farias and Gutiérrez (2013). The main activities were: the implementation, during PE lessons, of a common and coordinated net game season, developed under the auspices of Sport Education; the participation in an online social net; and a culminating event that gather all participants during a whole school day in the Secondary School. Primary Education Sixth-grade students (N= 145; 6 groups) and Secondary Education fourth grade students (N=28; 1 group) became members of individual teams that became part of four clubs (Africa, America, Europe and Asia). The final event was organized by Secondary Education sixth grade students (N= 36, 2 groups). Data was collected by interviews, focus groups, questionnaires, self-reports and content analysis of the social net. Both teachers and students showed great acceptance of the project and agreement on its potential to achieve objectives related to facilitate the transition from Primary Education School to Secondary School, by the socialization among students that would be future classmates, and with older students. Main limitations were the low knowledge and experience of teacher about the model, difficulties in the temporal coordination of the different seasons, and the work load of running the social net.

Important conclusions and recommendations for the design of a protocol to improve the transition from Primary Education School to Secondary School based on the sport education model were generated.
Background:
Sport-based positive youth development programs (PYD) increase protective factors, reduce risk factors, and promote positive youth outcomes among youth (Holt, 2016). There is limited research, however, exploring the value of sports-based PYD for youth of color and living in poverty (Anderson-Butcher et al., 2016). One sports-based PYD program serving vulnerable youth in the United States is the Learning in Fitness & Education through Sports (LiFEsports) program at The Ohio State University. Each year LiFEsports serves approximately 600 youth aged 9-15 living in poverty in its summer camp and monthly sports clinics. This study explores social and physical developmental outcomes associated with youth participation in this program.

Methods:
Three hundred and sixty three youth completed pre and post-test surveys assessing self-perceptions in the five key social skills targeted in the program, including self-control, effort, teamwork, social responsibility, and social competence. Youth also completed the PACER test pre and post program participation. Additionally, 100 parents completed a post-test survey exploring their perceptions related to the program’s impact.

Results:
Paired sample t-tests demonstrated statistically significant improvements in all five social skills, with the largest growth shown in the areas focused on inter-personal skills. For instance, pre-test scores were 4.01 (SD=.85) and post-test scores were 4.18 (SD=.78) on Perceived Social Competence Scale-II (Anderson-Butcher et al., 2014). Progressive Aerobic Cardiovascular Endurance Run (PACER) scores also significantly improved among the youth, especially in those entering with lower fitness levels. Parents were highly satisfied with the program. For instance, 89% of parent respondents indicated their child “enhanced their sport skills” and 90% indicated their child “learned to act responsibly” at LiFEsports.

Conclusions and Implications:
Data provide initial evidence demonstrating outcomes associated with participation in LiFEsports, especially for vulnerable youth. Sports-based PYD programs have the potential to make significant positive impacts on social and physical development.
The evolution and dissemination of game-centred-learning practice in Physical Education and sport coaching in New Zealand: A practitioner’s tale.

Thursday, 26th July - 15:15 - Oral - Sport education and positive youth development - Oral

Mr. Dennis Slade (School of Sport, Exercise and Nutrition, College of Health, Massey University, Palmerston North.), Prof. Andrew Martin (School of Sport, Exercise and Nutrition, College of Health, Massey University, Palmerston North.), Dr. Geoffrey Watson (School of Humanities, Massey University, Palmerston North.)

Research on teaching games in Physical Education and sport coaching in New Zealand reveals that over the last 30 years traditional skill-based game teaching models have gradually been supplemented by instruction under an inclusive banner of Game Centred Learning (GCL) especially, Teaching Games for Understanding (TGfU). This development was not mandated by educational policy but evolved and was disseminated through combinations of the practice and insights of early luminaries, visits to New Zealand by Rod Thorpe, a new guard of Physical Educators in pre-service teacher education colleges and the emergence of a socio-ecological perspective in the national PE syllabi (1999 & 2007). The practitioner’s tale of this process emerged through data collection that began with life story bibliography but evolved through auto and analytical ethnography. Plausibility was achieved through a triangulation of this data with reference to historical documents, peer reviewed articles and discussion with luminaries in the field. Conclusions were referenced against Bourdieu's concepts of practice and field that emerged as tensions in practitioners changing habitus, that nevertheless led to the adoption of GCL practice as an accepted model in PE teaching and sport coaching in NZ.

An implication of this research is that the adoption of GCL strategies in teaching and coaching games should not be ideologically bound but rather integrated with other models of instruction in a holistic experiential sense. This holistic focus should both enhance learning in movement skills and integrated as a means to promote citizenship. This presentation explores the process, methods and findings of the research and suggests strategies for enhancing PE and sport coaching practice in educational settings.


The amount of outdoor play has been shown to be associated with children's physical activity (PA). Children's PA has decreased, but there remains a lack of understanding on how environmental factors affect children's activities. The aim of this study was to determine if physical and social environmental factors are associated with the amount of preschool children's outdoor play. Children between the ages of 4 and 7 years (N = 1108, 556 boys, 552 girls) participated in the Skilled Kids project. Parents filled out a questionnaire that collected information on the amount of their children's outdoor play during their free time as well as the characteristics of their physical and social environment. Descriptive analysis (t tests and Pearson correlation coefficient) was used for preliminary results.

Preschool children played for approximately 30 to 60 minutes outdoors after the preschool day and for approximately 60 to 120 minutes on weekend days. Boys spent more time outside on weekdays (p=.001) and weekend days (p = .001) than girls did, but also used more entertainment media on weekends (p = .002). There were no gender differences in the amount of passive behavior or in the frequency of shared physical activities within the family. Children who played outdoors during the weekdays played outdoors more during weekend days (r = .45***). The parents of these children also suggested that their children were more active than other children (r = .32***). Children in families with shared physical activities played outdoors more than other families did (r = .22 – .26***). The amount of media use was slightly but negatively associated with the amount of outdoor play during weekends.

This study shows that a physically active lifestyle has been learned early. Shared physical activities within the family should be supported, because it had positive associations with children's outdoor play.
How parents’ perception in physical play influence the motor development of young children

Mr. ZIANG LI (University of Macau), Prof. Si Man Lei (University of Macau)

Introduction:
The children with better fine and motor skills may find it easier to be active than those with less-developed motor skills. There are various surveys shown that physical play is crucial to the development of young children. Nowadays, the physical fitness assessment of Macau suggests that not only nursery and kindergarten should increase time and opportunities for young children to participate in physical plays but also the parents should encourage their children to exposure more to physical plays. Therefore, the aim of this research is to find the relationship between the children's motor development in Macau and perception of parents towards participating in physical play.

Methods:
Participants were 318 children (Male=174, Female=144) from five nursery schools in Macao aged 22 to 41 months. Their parents completed the child motor development scale and another questionnaire designed to assess perception of parents towards children's physical play. Moreover, telephone survey and in-person survey were also used in this research. After data collection, Pearson correlations, T-test and One-way ANOVA were employed to determine the associations among the variables.

Results:
Children aged from 22 to 41 months in Macao are well developed in motor ability; Girl performs better in fine motor skill while boy performs better in gross motor skills. The overall consequences indicated significant associate between parents' perception about the physical play and children's fine and gross motor development. The status of children's motor development will be better if parents play a more active role in children's physical play.

Conclusions:
Parents' perception of children's physical play has great influence on children's development especially in motor development. Therefore, it is important for parents to pay attention to children's physical play and be good coaches during the play time.

Key words: young children, motor development, physical play, parents' perception
Experiencing Shame - Different types of students

Thursday, 26th July - 15:15 - Oral - Play, group work and student experience - Oral

Dr. David Wiesche (Ruhr-University Bochum)

Background
Physical education is attributed to a special contribution to the development of one's own personality. In doing so, a fundamentally positive effect of physical education is assumed. The discussion of a negative psychological effect for some students has just begun: Collections of negative experiences in physical education can be found at Hunger & Böhlke (2017) or Wiesche & Klinge (2017). In addition, the relationship between facets of the self-concept and the evaluation of shameful situations is empirically reconstructed.

The didactic benefits of basic research remain limited. In practice, it would be interesting to examine whether the students' assessments reveal patterns that go beyond the connection between facets of the self-concept and the assessment of shameful experiences. The aim of the article is to show whether different types of students can be identified.

Methods
The data basis is a standardized questionnaire survey with n=1224 pupils (Ø age= 13,5). The classes were randomly collected from secondary schools in Germany. The participants evaluated situations from physical, psychological or social shame (Lietzmann, 2003). In addition, the students' physical and academic self-concept as well as their social self-efficacy were examined.

Results
The data from the survey are analysed using the cluster-analytical method of latent profile analysis. With this explorative method, the data can be classified on the basis of its specific characteristics (Bortz & Döring, 2006). The results of the analyses are not yet available, but are expected to be available by the end of the year.

Conclusion
Hunger & Böhlke (2017) propose “to reduce the incriminating potential of embarrassing situations by attempting a sensitising change of perspective and by more or less simple didactic interventions”. Knowledge of profiles, which takes into account both the assessment of embarrassing situations and self-concepts, can be used to make these interventions more precise.
This paper will examine how an athlete's identity changed after a life changing accident, and how she moved from being an elite athlete, to being classified as a disabled athlete and her journey to be a talented adaptive athlete.

The paper is a case study over 7 years through an autobiographical lens using techniques suggested by Abrahão (2012) of reflections, narratives, visual methodologies of photographs and videos. These are all used to help understand the impact of the change of athletic identity (Brewer, 1993). Photography in particular was used as it can capture feelings, emotions and moments throughout the years, as Anthamatten et al. (2013) proposed photography can inform research on behaviour from different perspectives.

Symes (2010) made us think about the question “Who am I?” within her discussion on athletic identity and this paper shows the conflict and the change in understanding the ‘who am I’ post-accident. The results from this paper suggests that changes in athletic identity are similar to the 5 stages of grief and loss, (denial, anger, depression, bargaining and acceptance) identified by Kubler-Ross and Kessler (2014).

As a teacher and coach, changes in behaviour linked to identity due to disability, injury, or long term illness are relatively under researched, but are important to know how to help support the road to recovery and understand their role. Therefore, it is proposed that this paper will inform learning and teaching in physical education and sports pedagogy in the ways that an athlete needs to be supported. It will Analyse each of the stages experienced over the 7 years and offers a unique narrative of an athlete's learner identity and how physical activity, sport and teachers and coaches within the physical activity and sport, can be used to help rebuild and redefine the athlete in a positive way.
Elite Youth Gaelic Footballers And Their Holistic Development: The Academy Experience

Thursday, 26th July - 15:15 - Quality and Difference in Performance - Oral

Mr. Brian Cuthbert (University College Cork), Dr. Fiona Chambers (University College Cork), Dr. Bryan McCullick (University of Georgia)

Introduction / Purpose
The aim of this study was to map the ecology of the holistic talent development environment in elite Gaelic football academies in Ireland. In so doing, this study seeks to clarify the roles and functions of key components of the academy and to investigate how these components interact to support elite youth Gaelic footballer development. This study advances our understanding of how to both create and regulate high performance organisational cultures within elite sport settings. (Cruickshank & Collins, 2012).

Research Methods
Using a multiple case study framework; data were collected from stakeholders of talent development environments in six sites across Ireland. Within each case, stakeholders included administrators, coaches, parents, teachers and players. Multiple data collection tools were crystallised (Richardson, 2000) to try to attain data trustworthiness: semi-structured interviews, focus groups, fieldwork observations and a researcher reflective journal. Data were analysed systematically and thematically using a six level grounded theory approach (Harry, Sturges and Klinger, 2005).

Results
Results from this project indicate that while the Gaelic football academy aspired to deliver key components of successful development environments they were not attaining this goal. Specific issues were identified in relation to organisational culture and the lack of integration of efforts of the various stakeholders. Because of this, youth athletes (a) did not develop positive psychosocial skills. (b) struggled to cope with the demands placed upon them by coaches and (c) had difficulties with trying to balance sport and school. As a result of these aspects, academy athletes became producers of their own positive personal development.
Is physical education contributing to develop physically literate persons? Highlights from a pilot study with university students

Thursday, 26th July - 15:15 - Quality and Difference in Performance - Oral

Prof. João Martins (University of Lisbon), Prof. Marcos Onofre (University of Lisbon), Prof. António Rodrigues (University of Lisbon), Prof. Ana Quitério (University of Lisbon), Prof. Francisco Carreiro da Costa (Portuguese University of Humanities and Technologies)

Physical education (PE) main goal is to develop physically literate individuals (SHAPE, 2013; Whitehead, 2010). Further research is needed to explore the contribution of PE for physical literacy (PL) (Whitehead, 2010) after leaving secondary school. Based on occupation socialization theory (Templin, 2014), this study sought to understand how beginner students enrolled in sport sciences courses (SCC) and other courses (OC) reflect on the contribution of PE for their PL.

A total of 62 SCC beginner students (Mean age=20.4±1.6 years) and 77 OC (psychology and social communication) beginner students (20.4±1.6 years) from one University answered to a questionnaire. Questions collected information in a Likert scale (1–‘totally disagree’ to 5–‘totally agree’) regarding PE contribution to the development of the standards of a physically literate person (SHAPE, 2013), to ‘the attitude/motivation/confidence to maintain PA throughout life’ (Whitehead, 2013), and self-reported physical activity (PA). Between groups comparisons of continuous variables were performed by ANCOVA, using sex as covariate.

SCC students presented significantly higher levels of PA, as well as agreement than OC students regarding the contribution of PE to: Demonstrate competency in a variety of motor skills (Mean SCC=4.0±0.2 vs. Mean OC=3.5±0.2); Demonstrate the knowledge and skills to achieve/maintain PA (4.3±0.2 vs. 3.5±0.1) and fitness (4.2±0.2 vs. 3.6±0.1); Exhibit responsible personal/social behaviour (4.0±0.2 vs. 3.6±0.1); Recognise the value of PA for health/enjoyment/social interaction (4.2±0.1 vs. 3.5±0.1); Develop the attitude/motivation/confidence to maintain PA throughout life (4.3±0. vs. 3.4±0.1). No differences were found regarding ‘Applying knowledge of concepts/principles/strategies/tactics related to movement/performance’ (4.1±0.1; vs. 3.6±0.1; p=0.057), possibly because teachers emphasise more PA and physical fitness components than knowledge.

In conclusion, the differences between two groups suggest that when PE is perceived to contribute to PL young adults present more active lifestyles and might choose to develop their knowledge for PE and PA by entering into SCC.
Beyond policy: Disrupting the power of policy and knowledge production

Thursday, 26th July - 17:00 - Symposium - Symposium

Dr. McCuaig Louise (The University of Queensland), Dr. Eimear Enright (The University of Queensland), Prof. Doune Macdonald (The University of Queensland), Prof. David Kirk (University of Strathclyde), Dr. Richard Bowles (Mary Immaculate College)

This symposium reports on an international research initiative, the Health and Physical Education Without Borders (HPEWB) project, that explored the factors that influence the appeal and opportunities for external providers in relation to health and wellbeing practices in schools. To date, dissemination of this project's findings have drawn on case studies generated within the respective author's national context. In contrast, this symposium adopts a comparative approach to consider international similarities and nuanced differences in the outsourcing of HPE as a global phenomenon.

Against the backdrop of global neoliberalism, the project's researchers were interested in the dominant cultural, educational and social discourses that impact upon the agency of school leaders and teachers in making decisions for students' health-related learning outcomes. Extending Ball's (2012) work, this research maps the emergent global networks of providers and changed governance structures that now constitute how 'health' work is done in schools, through both formal HPE curricula and informal school-based practices.

Our first paper provides a rationale for the theoretical perspectives and methods employed in the analysis of data gathered across our six countries. The remaining three papers each draw upon an international comparison of the coded data according to the activities of agents acting within and between, what Bernstein (2000) identifies as, the primary, recontextualising and secondary fields of the pedagogic device. Four dominant themes of global neoliberalism, networks, futures orientations and message systems of Bernstein’s arose across these analyses. Collectively these papers demonstrate that, irrespective of national vernacularisms, there are strong similarities in how schools are responding to their students' health-related learning needs.

In combination, these papers seek to empower HPE professionals through insight into the global nature, extent and potential effects of networks that exist between external providers and other agencies seeking to produce and reproduce health work and curricula in schools.
School-Based Physical Activity Promotion: Examples from the United States, Ireland, the United Kingdom and Finland

Thursday, 26th July - 17:00 - Symposium - Symposium

Dr. Jaimie McMullen (University of Northern Colorado 1), Dr. Déirdre Ní Chróinín (Mary Immaculate College 2), Dr. Ash Routen (Loughborough University 3), Dr. Henna Haapala (LIKES Research Centre for Physical Activity and Health 4)

Internationally there has been a call for schools to be sites of physical activity promotion (CDC, 2013, WHO, 2007). In response, physical activity initiatives have been developed all over the world at local, regional and national levels. While some initiatives consider a single component (i.e., physical activity in the classroom), others attempt a more comprehensive, multi-component approach (i.e., physical activity before and after school, physical education, physical activity during school, staff engagement, family/community engagement). Research on such initiatives has focused on a variety of outcomes including participants' perspectives, physical activity levels, enjoyment, behavioral measures, learning, and physical activity opportunities among others. Given that school-based physical activity promotion efforts have been encouraged and adopted worldwide, and research on such efforts are increasing, it is important that those who are interested in this work can collaborate and share ideas across borders. This symposium will highlight relevant research efforts from the United Kingdom (UK), Finland, Ireland and the United States. The first paper will provide a glimpse into a typical day at an “active” secondary school in the United States, providing us with an example of the potential opportunities that exist for young people to be active at school. The second paper will explore the medium-term impact and related sustainability of the Active School Flag, a national whole-of-school physical activity initiative in Ireland. Based on work from the UK, the third paper provides insights into barriers and facilitators that exist when attempting to implement physical activity opportunities within the school setting. Finally, the fourth paper will discuss lesson learned from Finland’s Finnish Schools on the Move initiative’s goal to make the school day more pleasant through physical activity.

Anna Chalkley
Lauren Sherar
Collin Brooks
M. H. Hirvensalo, University of Jyväskylä
K. Laine
T. H. Tammelin
Introduction
The symposium links to the Conference theme ‘Empowering practitioners and supporting professional learning’ as it invigorates the mentoring process by using a design thinking approach to analyse and redesign ‘mentoring conversations’ (Tillema van der Westhuizen, & van der Merwe, 2015) in order to optimise novice coach learning in sports coaching contexts. The design thinking process enabled the ‘mentoring conversation’ to become a rich site for mentor training. In sum, the symposium provides (a) a new Mentor Training approach for sports coaching (b) three exemplars of optimum learner centred mentoring conversations (ibid); and (c) a critique of the sports coach mentor as design thinker.

Method Employed
The study employed a four-stage design thinking process [Clarify, Ideate, Prototype and Implement] (Goligorsky, 2012). Each of the three case studies comprised a sports coaching academic, a coach educator, an experienced coach (mentor) and a novice coach (mentee) who co-wrote the case study.

Results
The emergent case studies themes were: (1) The complexity of learning tasks (2) Team selection; and (3) Modelling the thinking process in coaching.

Scholarly or scientific significance
The symposium showcases an innovative approach to unlocking the learning potential of these mentoring conversations (ibid) as sports coaches are often untrained for their secondary role as mentors (Author, 2015) and finding places and spaces for such training can prove difficult, given 76% of sports coaches are volunteers (Sports Coach UK, 2011).
A Connected Future for Primary Physical Education Teacher Education

Thursday, 26th July - 17:00 - Symposium - Symposium

Dr. Vicky Randall (University of Winchester), Dr. Emile Bojesen (University of Winchester), Ms. Julie Pearson (St Mary’s University), Mrs. Emma Whewell (University of Northampton), Mrs. Annette McLachlan (University of Brighton)

It is well understood that teacher competency is a central component of pupil achievement (Hattie, 2003). In recent years successive English governments have attempted to address the competency of primary physical educators through a series of high profile policies. With increased funding, a change in the English National Curriculum and revised teacher standards, teachers are now required to provide lessons which are deemed to be good or better (Ofsted, 2013). Despite good intentions, policy drivers have tended to valorise societal issues over professional concerns. In this symposium we put forward a concept of ‘unhealthy fixations’ to frame an erosion of subject specific teacher professionalism through a failing process of ‘policy translation’ in England since 2012. Amidst a period of rapid educational change, we argue that the teacher has been seen as a commodity, implicitly considered rather than foregrounded. Our aim is to address a trend that deprioritises the agency, effect and influence of teachers and teacher educators by hearing contextualised experiences as one connected profession. In the first paper we will start by outlining three ‘unhealthy fixations’ from physical education English policy: health, sport and policy analysis, where we argue that these global obsessions have influenced how the subject is enacted and who is best placed to teach it. The three remaining papers will consider a connected understanding of physical education practice in England, through a range of theoretical lenses that include teacher perspectives from initial teacher education, in-service teacher development and subject specialism. With a growing policy-practice gap emerging, we hope to evoke discussion about a positive future for primary physical education and to increase the agency of the professional within it.
There is lack of research focused on the ‘…’messy’ realities of educational technology use in situ’ (2014 p.161). Following Selwyn’s recommendations for tracing a ‘bigger picture’, this study aims to examine teachers’ technology related habits on multiple levels, namely a macro level analysis of the wider socio-political backdrop, together with the national and local contexts influencing their associated practices with technology.

Nine secondary school PE teachers, all of whom were recognised by colleagues as being proficient in the use of technology, took part in the study. Two semi-structured interviews were conducted with each participant at their respective schools, in order to explore their experiences using technology, as well as their associated wider habits and practices with it.

Close analysis of the transcripts revealed the overarching concept of ‘weighted investment’ by the participants, which encapsulates their wider involvements associated with technology. The concept depicts the manner in which the teachers engaged with technology, specifically the time and effort they devoted to it and an appreciation of why they seemed predisposed to engage with technology. Specifically, the main reasons for investing time and energy, and undertaking practices with technology, relate to career advancement, enhancing pupil engagement, personally-held values and beliefs about technology use, and increasing professional expectations. However, the lack of a strategic overview for technology at local and national level, limited infrastructure and inconsistent technical support compounded matters with respect to the time and effort they were having to invest.

These insights contribute to the education and physical education literature by presenting a more comprehensive picture of PE teachers’ use of technology in comparison to past studies. Selwyn, N. (2014). Distrusting educational technology - critical questions for changing times. New York, NY: Routledge.
Digital technology and pedagogy in Physical Education teaching: Flipped learning as a strategy to optimise physical activity time.

Thursday, 26th July - 17:00 - Oral - Digital technologies and teaching - Oral

Ms. Julia Sargent (Loughborough University), Dr. Ashley Casey (Loughborough University)

Digital technology (DigiTech) is not commonplace in education (Selwyn, 2017) or physical education (PE) (Gard, 2014). This may be because little consideration has been given to what PE teachers’ think, say and do regarding DigiTech (Casey et al., 2017). This study aimed to explore how and why UK PE teachers’ use DigiTech. For this presentation, we focus specifically on the teachers’ use of DigiTech to optimise students’ physical activity time. Four UK PE teachers, who were self-identified users of DigiTech, were selected for this study. Their experiences and views were explored through a case study approach. Data were generated from (a) interviews with PE teachers, headteachers, senior leaders and IT network managers, (b) lesson observations, (c) document analysis and, (d) field notes. Data were analysed using a grounded theory approach.

Teachers used DigiTech in different ways to optimise students’ physical activity time. These included, showing videos in the changing rooms, using videos or quizzes in rest periods or, most commonly, flipped learning. Flipped learning enabled students to enhance their knowledge outside of school so that they could be more active in class. The use of DigiTech facilitated teachers in supporting students’ initial learning; assessing students’ understanding and; optimising students’ physical activity time in the lesson.

The results indicate that when used in conjunction with DigiTech, flipped learning has the potential to support PE teachers to optimise students often limited physical activity time (Østerlie 2016; Roth 2014) and, thus, use DigiTech pedagogically. This is particularly pertinent given the limited time allocated in the curriculum to PE (some of which is inevitable lost in the changing rooms) and the perceived need for students to be physically active in lessons (Cale et al. 2016).
Pilot study: Mobile Application for quantitative observation and motor learning in hurdle running in physical education

Thursday, 26th July - 17:00 - Oral - Digital technologies and teaching - Oral

Dr. Mitsuo Otsuka (Ritsumeikan University), Prof. Tadao Isaka (Ritsumeikan University), Prof. Akinori Nagano (Ritsumeikan University), Dr. Toshiyuki Kurihara (Ritsumeikan University), Prof. Satoshi Otomo (Ritsumeikan University)

External feedback such as viewing videotape is a beneficial approach for effective motor learning (e.g. Cooper and Rothstein, 1981). To our knowledge, previous studies focused on the external visual feedback tried to enhance motor skills with only qualitative observation. The purpose of this study was I) to develop a mobile application for quantitative assessment in hurdle running skill and II) to clarify the effect on the motor learning of high school students in simulated physical education (PE) class. In experiment I, thirty-one high school students performed a 50-m hurdles. During the time trial, the hurdle clearance motion at the second hurdle was captured from the right side into running direction. The hurdle running record was significantly correlated to the horizontal jumping distance and 50-m sprint running record. We developed an application which can estimate a 50-m hurdle running record from a horizontal jumping distance and a 50-m sprint running record using a linear multiple regression analysis. In the “TimePrediction” application, the hurdle clearance motion is required to be captured and digitized by students manually using a mobile terminal device. In experiment II, simulated PE class was conducted for high school students using the TimePrediction application. Students were instructed to use captured movie and quantified motor skill (horizontal jumping distance and predicted 50-m hurdle running record) during the peer learning. After the intervention, we assessed the 50-m hurdle running record, hurdle clearance motion at the second hurdle, and questionnaire (Takahashi et al., 1994) by students. Throughout the simulated class, our pilot study found that the motor learning using the mobile application affected to the student motivation, horizontal jumping distance and 50-m hurdle running record. Therefore, a quantitative observation using a mobile application can be considered as a useful process in motor learning in PE class.
The effect of a badminton teaching system using wearable technology

Thursday, 26th July - 17:00 - Oral - Digital technologies and teaching - Oral

Dr. Kuo Chin Lin (National Sun Yat-sen University), Dr. I-ling Cheng (National Sun Yat-sen University), Mr. Wei-lun Chang (National Sun Yat-sen University), Mr. Yin-cheng Huang (National Sun Yat-sen University), Dr. Chun-wang Wei (Kaohsiung Medical University)

Background and purpose: In traditional physical education, instructors provide feedback to learners mainly based on observing their body motions. However, there is very little research paying attention to measuring muscle strength with physiological signals for improving badminton skills. Therefore, the purpose of this research is to develop and evaluate a badminton teaching system by using the wearable technology called “MYO armband”, to capture the electromyography (EMG) signals. The developed badminton teaching system provides instantaneous recording, automatic grading and instantaneous feedback, these functions can support instructor providing objective feedback to learners. Methods: To design such a teaching system, four professional badminton players (experts) in Taiwan were invited to record their arm muscle strength of two badminton skills — flat shot and smashing using the MYO armband. Once the EMG signals were collected from the four experts, the Mean Absolute Value (MAV) was used to calculate experts’ EMG signal amplitude and then a back propagation artificial neural network was used to train and build the expert badminton model. To validate the accuracy and reliability of the expert badminton model, 10-fold cross-validation accuracy and Kappa statistics was considered by using Waka software. The Kappa coefficient over 0.6 is considered to be fair to good agreement for the expert badminton model. Results: The results showed that the badminton teaching system can effectively monitor learners’ arm muscle strength through the captured EMG signals, and instructor can provide objective feedback to learners based on the report. Conclusions and implications: The developed teaching system shows great impact on the improvement of badminton skills teaching, because learners can better understand how the right amount of arm strength would influence their badminton skills performance. This study may also be applied to racket sports regarding arm strength usage for future research in physical education.
Targeting the improvement of FMS in a school setting through the Youth-Physical Activity Towards Health (Y-PATH) intervention

**Introduction/Background:** Despite the development of fundamental movement skills (FMS) featuring in the primary physical education (PE) curriculum in Ireland, children are entering adolescence lacking in these basic movement patterns which are required for sports skill development (O’Brien et al., 2015). Various studies support the fact that these FMS must be taught and practiced both in educational and free play settings (Mitchell et al., 2013). This study aimed to evaluate if the Youth-Physical Activity Towards Health (Y-PATH) intervention can improve FMS proficiency in a randomised controlled trial among adolescents.

**Methods:** Participants were 482 adolescents aged 12-13 years from twenty schools. For one academic year, participants in ten schools received the Y-PATH intervention. The remaining ten schools received their regular weekly PE lessons. The intervention consisted of a) a PE component where Y-PATH PE was taught for an academic year, b) a staff component which trained both PE teachers and all staff, c) a parent/guardian component and d) a media component. Fifteen FMS were assessed using validated tools, their PA was assessed using accelerometers, their height and weight and cardio-respiratory fitness was also recorded. Outcomes were assessed at baseline, post-intervention, and three months later at retention. Multilevel analysis were performed using MLwiN 2.35 software.

**Results:** Significant intervention effects across time were observed for Total Object Control \( (p<.0001, \beta=2.04, CI=1.16, 2.92) \) and Total Locomotor \( (p<.0001, \beta=2.13, CI=1.44, 2.82) \), with the greatest improvements evident for Total FMS score \( (p<.0001, \beta=4.04, CI=2.39, 5.69) \). The effects of the intervention were significant and positive for all children in the Intervention group regardless of gender, weight status, or PA level \( (p=.03 \text{ to } <.0001) \).

**Conclusions:** Y-PATH has the potential to improve FMS proficiency among adolescents regardless of gender, weight status and activity levels and subsequently improve PA levels and sport participation.
The Effectiveness of a multicomponent intervention aimed at improving preschoolers’ fundamental movement skills and physical activity levels

Thursday, 26th July - 17:00 - Oral - Fundamental movement - Oral

Prof. Amy Ha (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Johan Y Y Ng (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Cecilia H S Chan (Department of Sports Science and Physical Education, The Chinese University of Hong Kong), Dr. Joni Zhang (Department of Sports Science and Physical Education, The Chinese University of Hong Kong)

Background
A growing body of literature has demonstrated the positive relationship between the acquisition of physical literacy (PL) and engagement in physical activity (PA). Moreover, fundamental movement skills (FMS) has been highlighted as one of the essential component for the acquisition of PL. The best age to learn and practice FMS is 2 – 7 years old, during physical education (PE). However, pre-primary schools (i.e. for children aged 2 – 5) in Hong Kong neither have specific PE periods, nor require a specifically trained teacher to lead PA-related activities.

Purpose
The purpose of the study was to examine the effectiveness of a multicomponent, parent-teacher intervention aimed at improving children’s FMS and PA.

Methods
The intervention was delivered at a kindergarten, at least one of each child’s parents and all teachers of the kindergarten completed the intervention. Intervention components (i.e. educational workshops, parent sharing sessions, and “carnival-like” events, Educational materials) were designed by a group of experts (PE pedagogy scholars, clinicians and psychologists with Ph.D. training). A repeated measures ANOVA was conducted to compare children’s FMS and PA before and after the intervention.

Results
77 children between 2 – 5 years old provided complete pre- and post-intervention data. FMS was assessed by direct observation (DO) and PA was measured by Actigraph GT3X+ accelerometers. Children’s left balance, jump and run FMS scores were significantly improved (p < .05) for boys and girls. Significant increase in MVPA (p < .05) was also found in girls before (22.38 mins) and after (26.05 mins) intervention.

Conclusions and implications
A multicomponent, parent-teacher intervention was effective in improving kindergarten children’s FMS and increasing girls’ engagement in MVPA. Interventions aimed at improving kindergarten children’s FMS and PA engagement are recommended to include components that target both parents and teachers, as they are important agents of kindergarten-aged children.
Game skills or fundamental movement skills for the promotion of physical activity outcomes among primary school children? Outcomes of a cross-sectional study

Thursday, 26th July - 17:00 - Oral - Fundamental movement - Oral

Dr. Andrew Miller (University of Newcastle), Dr. Narelle Eather (University of Newcastle), Dr. Nick Riley (University of Newcastle), Dr. Mitch Duncan (University of Newcastle)

Background: During sports, high level players extract more relevant game information using perceptual-cognitive skills and use their motor skills to engage in more purposeful and high quality play. Despite motor and perceptual-cognitive skills being required for purposeful involvement in sports, only motor skill competence has been used to investigate relationships between physical competence and physical activity. The aim of this study was to investigate the associations between object control competence, game play competence and physical activity in primary school children.

Methods: Cross sectional. Actual and perceived object control were assessed using the Test of Gross Motor Development – 3rd Edition, and a Pictorial Scale of Perceived Competence respectively. Actual and perceived game play were assessed using a modified Game Play Assessment, and a Game Play Perception Profile respectively. Physical activity (PA) was assessed via accelerometry. 107 children (43% boys, 57% girls) aged 9 – 12 years (M 10.5, SD 0.65) completed assessments. Regression models (age, sex and cluster adjusted) were performed for object control competence predicting game play competence, and for PA predicted by each of the actual and perceived object control and game play competence variables.

Results: Actual object control competence accounted for 3.5% (p = 0.001) of the variance in game play competence. For PA as the outcome, actual object control and game play competence accounted for 3.9% (p <0.000) and 14.1% (p <0.000) of variance respectively, and perceived object control and game play competence accounted for 11.7% (p <0.000) and 14.1% (p <0.000) of variance respectively.

Conclusion: Whilst object control and game play competence were significantly associated, game play competence accounted for a greater proportion of physical activity than object control competence. This study provides evidence for the importance of improving game based competence among primary school students when the focus is on physical activity outcomes.
Construct and correlates of basic motor competencies in primary school-aged children in Luxembourg

Thursday, 26th July - 17:00 - Oral - Fundamental movement - Oral

Dr. Claude Scheuer (University of Luxembourg), Prof. Andreas Bund (University of Luxembourg), Dr. Christian Herrmann (University of Basel)

Background and purpose
A central aim of physical education (PE) is the promotion of basic motor competencies (in German: Motorische Basiskompetenzen; MOBAK) which are prerequisites for children’s active participation in culture of human motion. We introduce two measures of MOBAK for children aged six to eight years (MOBAK-1) and eight to ten years (MOBAK-3) made up of twelve, respectively fifteen dichotomous items (Scheuer, Bund, Becker, & Herrmann, 2017; Scheuer, Bund, & Herrmann, 2017a, 2017b) with two different levels of difficulty. In this study, the focus lies in the investigation of the relationship between MOBAK and sex, age, as well as self-concept and interest in PE.

Methods
N=565 primary school children for MOBAK-1 and N=776 for MOBAK-3, respectively, took part in a study from September to December 2017. The MOBAK-data together with data on age and sex were collected by class PE teachers using the respective MOBAK instruments. The participating children responded to a short questionnaire assessing self-concept and interest in PE. Analyses of frequency, correlation, and variance will be performed using SPSS; multivariate analyses will be performed using Mplus.

Results
In previous studies we found MOBAK-1 consisting of three factors (locomotion, object control and moving in water; see Scheuer, Bund & Herrmann, 2017a) and MOBAK-3 consisting of four factors (locomotion, object control, object-locomotion and moving in water; see Scheuer, Bund & Herrmann, 2017b). The correlates between MOBAK and its factors on one hand and age, sex, as well as self-concept and interest in PE on the other hand will be analyzed.

Conclusions and implications
The MOBAK-1 and MOBAK-3 test instruments meet psychometric validity demands and are suitable to evaluate basic motor competence of primary-school aged children. The results of the correlates will be discussed.
A systematic review of the affective benefits of physical education and school sport for children and adolescents

Thursday, 26th July - 17:00 - Oral - Affective gains - Oral

Mr. Eishin Teraoka (University of Strathclyde), Prof. David Kirk (University of Strathclyde; University of Queensland), Ms. Heidi Jancer Ferreira (São Paulo State University (UNESP), Institute of Biosciences, Rio Claro; Federal Institute of South of Minas Gerais (IFSULDEMINAS), Poços de Caldas, Brazil), Dr. Farid Bardid (University of Strathclyde; Ghent University)

Background and purpose
Health benefits within the affective domain have attracted increased attention in physical education and school sports in recent years. A preliminary descriptive literature review showed that motivation, perceived competence, attitude, pleasure, interest, enjoyment and body image have been examined frequently as outcomes of the affective domain. Nevertheless, existing literature on the affective domain has not yet been analysed from a pedagogical perspective. This study will provide a systematic review of the affective benefits of physical education and school sport in youth within the contexts of learning, teaching, and lesson content, which Kirk et al. (2006) consider as key elements of pedagogy.

Methods
We will conduct a literature search using five electronic databases in accordance with the PRISMA statement (Moher et al., 2009). Peer-reviewed studies published in English (from January 2008 until December 2017) that examined the affective benefits of physical education and school sports for children and adolescents, will be included. Studies that did not provide aspects of teaching, learning or content will be excluded. Selected articles will be coded to synthesise the following information: purpose, design/method, theory/model, sample description, setting, and pedagogical elements (e.g., teacher behaviour, learning goals, activities/content).

Main Findings
We anticipate providing current evidence of the benefits of physical education and school sports within the affective domain of health. Furthermore, we expect to show findings on the effects of teaching and learning features, and lesson/programme content on the affective outcomes in children and adolescents.

References
Understanding the teaching and learning of social and emotional competencies in physical education

Thursday, 26th July - 17:00 - Oral - Affective gains - Oral

Prof. Paul Wright (Northern Illinois University), Dr. Shirley Gray (University of Edinburgh)

Educational policies and curricula in many countries are placing more explicit emphasis on social and emotional learning (SEL) competencies in physical education (PE). SEL competencies relate to self-awareness, self-management, relationship skills, social awareness, and responsible decision making. Little research, however, has examined how such mandates are implemented in the context of practice. Therefore, the current study assessed how secondary teachers interpret and implement this aspect of the curriculum in their practice as well as the ways their pupils experience and perceive this content. This study was conducted in four secondary schools in a large Scottish city. Eleven PE teachers were interviewed and observed teaching at least two lessons each. Eight pupils from each school (n=32) participated in focus group interviews. Data from systematic observation of teacher and pupil behaviors were analyzed using descriptive statistics. Interview and focus group interview data were analyzed inductively. Data triangulation, peer debriefing, and member check strategies supported the trustworthiness of the findings. Teachers strongly valued the notion of SEL, yet often struggled to articulate clear objectives and explain how they were implemented in practice. Observations and interviews indicated they emphasized enjoyment, respect, participation, and social interaction. However, empowerment-based strategies like pupil leadership or decision making were rarely evidenced. Pupils understood the potential of SEL in PE, but perceived such objectives were addressed indirectly or inconsistently. Findings suggest that teachers would benefit from developing concrete learning objectives and strategies for implementing them, including more challenging roles and empowering experiences for pupils. Research should examine the effects of such learning opportunities on teachers’ practice and subsequent impact on their pupils’ learning. These findings have direct relevance to the Scottish national curriculum and provide insights for PE teachers, teacher trainers, curriculum developers, and researchers around the globe.
This paper explores pupil experiences of a curricular sports programme offered in a Scottish secondary school. Participation in these types of sports programmes is a promising avenue to foster what is known as Positive Youth Development (PYD). As greater responsibility is placed within the Curriculum for Excellence (CfE) to enhance aspects commonly associated with PYD such as social and emotional well-being, it is essential to understand how this school provision may enhance these characteristics. The majority of research involving sport and youth development is cross-sectional and quantitative in nature, with very few studies drawing on qualitative evidence. In addition, research involving curricular sports programmes, and their ability to enhance aspects of PYD, is limited. This research employed a sequential multi-phase mixed methods design consisting of three phases. This paper will focus on the third phase of the data collection that utilised semi-structured interviews with those who were selected to participate in the programme as well as those who did not. This phase was explanatory in nature seeking to provide further explanation to the findings from the previous two phases. This research draws on aspects of the Applied Sport Programming Model (Fraser-Thomas, Côté & Deakin, 2005) and suggests an additional consideration of programme ‘selection’. Developmentally, this selection process appeared to be an important self-validating factor for increases in pupils’ confidence in their athletic ability. This research adds to the continuing conversation regarding the possible developmental nature of sport programmes and the continued search for avenues to enhance psychosocial development in the school context.
The Value of Belonging and Coach Expectations and Support in Promoting Youth Outcomes

Thursday, 26th July - 17:00 - Oral - Affective gains - Oral

Prof. Dawn Anderson-Butcher (The Ohio State University), Mr. John Provenzano (The Ohio State University), Dr. Anthony Amorose (Illinois State University)

Background
Twenty percent of youth in the United States lack age-appropriate social skills and are at risk for negative outcomes (Blumberg et al., 2008). Sports-based positive youth development (PYD) programs have emerged to address these needs, especially among youth from vulnerable circumstances. Research demonstrates the value of these programs (Anderson-Butcher et al., 2014). Little is known, however, about what mechanisms contribute to positive outcomes. This study explores the relationships among youth sense of belonging and perceived coach expectations and support and healthy behaviors among youth involved in a sport-based PYD summer camp program.

Methods
Four hundred and eighty seven youth involved in month long sports-based PYD summer program in the United States. Youth on average were 11.6 years old, 59.5% male, 82.0% African American, and 68% living in poverty. Youth completed pre- and post-test surveys assessing healthy behaviors such as physical activity and eating habits using the Healthy Lifestyles Scale (Anderson-Butcher & Amorose, 2017). Healthy lifestyles, coach expectations and coach support were measured at post-test. Youth perceptions of coach expectations were measured using the Coaching Life Skills Behaviors Scale (Gould & Carson, 2010). Coach support was measured using the Leadership Practices Inventory (Kouzes & Posner, 1993). A Sense of Belonging was assessed using the Belonging Scale (Anderson-Butcher & Conroy, 2012).

Results
Hierarchical multiple regression analyses examined the three predictor variables and post-test healthy behaviors after controlling for pre-test healthy behaviors. The variance explained by the model was 32.1% (F (3, 345) = 55.74; p < .001). Leader Support and a Sense of Belonging contributed most to the model. The role of Staff Expectations was non-significant.

Conclusions and Implications
This study demonstrates the importance of belonging and staff support in promoting healthy behaviors among youth involved in sport-based PYD programs. Implications for program design and staff training are drawn.
The concept of embodiment emerged from the Finnish National Core Curriculum for Basic Education, which was implemented in the autumn of 2016; however, it has thus far received very little attention in the Physical Education (PE) literature. In this presentation, we use contributions from phenomenology to clarify the concept of embodiment. Here, the body is understood as a subject, carrying and producing meanings and playing a role in learning. The purpose of our presentation is to focus on the students’ embodied experiences and the ways in which they verbalize them. The data consists of vocational college students’ interviews and university class-teacher students’ summaries of their diaries. It is worth noting the exceptional versatility of the informants and the data. The study utilized phenomenological analysis, which was conducted as a dialogue between two researchers. The main result is that students verbalize their embodiment experiences not only as sensations of their own bodies, but also as social, cultural, historical, and material aspects. Although verbalizing embodied experiences is by no means easy, it is highly relevant. Verbalizing enables the broadening of PE discourses and brings meaningful experiences into view, not only in terms of binding people into physical activity, but also opening doors to other areas of life.
Lessons from the field: The transformative potential of occupational movements to shape physical education

Dr. Karen Lambert (Monash University)

Our shared future societies and occupational contexts are becoming increasingly underscored by complex global and local discourses. In education such discourses promote sameness and linearity at the expense of creativity and innovation and in physical education (PE) determine what we should do pedagogically in relation to health, wellbeing and movement. Enhancing future learning in and through PE in response to our changing world requires transforming our teaching practices today. It’s timely to re-consider the future role of PE as a mechanism to counter one-size-fits-all models of education and individual dis-interest in valuing movement for life. This paper seeks to progress this cause by sharing a set of practical movement activities - teaching and learning experiences - and ways of working with young women that are focussed on valuing movement for lifelong occupational purposes. The paper reports upon data collected via focus group interviews, participant observation and visual methods, document collection and surveys from thirty nine (n=39) young women who attended one of three (n=3) fire fighting camps for girls in North America. Results about the types of activities conducted at the camps, the impact of the camps, and the experiences of the young women as well as their own ideas about what might work for other young women in PE are provided. These inform the development of a set of sample occupationally driven teaching and learning activities/lesson activities that could be incorporated into any PE class. It is suggested that looking outside PE opens up the discipline to innovation and can in doing so inspires and informs change beyond the one-size-fits-all model. Such an approach has the potential to inform new and different kinds movement pedagogies that are also capable dealing with the dis-engagement of young women from movement by seeking to address their future lifelong occupational movement needs.
What is normal? Conflicting interpretations of the body in contemporary Physical Education

Thursday, 26th July - 17:00 - Oral - Embodiment/valuing movement - Oral

Dr. Sebastian Ruin (German Sport University Cologne)

Background and purpose
In current social discourses on the body (Foucault, 1977), norms like fitness related ideals of beauty or health standards are of great importance – working on one’s own body is often considered as creating identity (Shilling, 2012). In these discourses, which also infect PE on a conceptual level (Ruin, 2015), the body seems to be reduced to an object. Simultaneously, the worldwide noticeable claims for inclusion carry out demands for acceptance of bodily diversity. Recent sport-pedagogical discourses debate, how pedagogical settings can deal with diversity and individuality to promote an inclusive society (Block, Giese & Ruin, 2017). Regarding this tension field, the study asks, how the actors in contemporary PE conceptualize the body.

Methods
A qualitative research approach (Denzin & Lincoln, 2005) is followed, to reconstruct the actors’ individual constructions of the body. Structured interviews with 49 PE-teachers and 45 students in Germany provide the data basis on which to explore their perceptions. Based on inductively developed categories – derived from theoretical sociological approaches (e.g. Foucault, 1977; Goffman, 1971) –, an evaluative, and type-building analysis (Kuckartz, 2014) was carried out.

Results
The results show that teachers understand the body mainly in an instrumental manner and thereby often focus on the learning of standardized techniques. However, also several students tend towards an instrumental interpretation, but rather orientated to socially conveyed norms like fitness related ideals of beauty. On the other side, a few teachers interpret the body in an explicitly subjective manner, primarily as a vehicle for individual experience. Similar understandings seem to be also relevant for many students, as they point out positive and negative experiences.

Conclusions
The results show, that norm-orientated ideas of body somehow seem to hinder the acceptance of diversity on different levels. Therefore, the sport-pedagogy ought to self-reflect, what is considered as “normal”.
Understanding two teachers’ professional learning experiences using TPSR in secondary school PE

Thursday, 26th July - 17:00 - Oral - Embodiment/valuing movement - Oral

Dr. Shirley Gray (University of Edinburgh), Prof. Paul Wright (Northern Illinois University)

The development of social and emotional skills in the school context has been shown to improve pupil behaviour through the development of, for example, impulse control, peaceful conflict resolution and positive teacher-pupil relations. It is in the interest of all teachers (and their learners), to develop knowledge and strategies that might nurture and promote social and emotional learning in schools. Teaching Personal and Social Responsibility (TPSR) is a pedagogical model that was developed to promote positive youth development and social and emotional skills. While TPSR has been researched extensively over the last 40 years, we still know little about how teachers engage with it in their own professional context. Consequently, informed by the Deweyian framework for PE-CPD developed by Armour et al. (2015), we tell the story of two PE teachers from two different secondary schools in Scotland, both engaging in action research to develop their understanding and application of TPSR. Given the centrality of the teachers to the learning and inquiry processes, the research methods utilised were largely interpretive and collaborative in nature, and included, peer observations, reflective discussions and pupil interviews. Our results highlight the contextualised, dynamic and continuing nature of the teachers’ learning experiences. The results from the co-analysis of the data generated by the teachers demonstrate that, while both had similar personal and professional values around pupil learning and experience in PE, their unique contexts resulted in different learning experiences, with varying, gradual, yet non-linear degrees of success. Furthermore, in sharing their experiences with the researchers and with each other, they were able to develop their critical understanding of TPSR, appreciate the challenges of teacher learning in context and support their continued engagement in professional learning and inquiry. This research highlights the ways in which teachers can be both empowered and supported in their professional learning.
Student perceptions of integrating technology and homework into physical education

Thursday, 26th July - 17:00 - Young Scholars Parallel Session - Oral

Dr. Risto Marttinen (California State University, Fullerton), Dr. David Daum (San Jose State University), Mr. Joshua Santiago (California State University, Fullerton), Dr. Stephen Silverman (Teachers College Columbia University)

Introduction: The introduction of technology into the physical education (PE) setting has been welcomed in some contexts yet implementation challenges are abundant. Minimal research has been conducted on student perceptions of technology integrated into PE.

Purpose: Through the implementation of a 12-lesson Fitness Integrated with Technology (F.I.T.) unit in a middle-school setting, we sought to explore students' experiences of the unit, and of their perceptions of using technology in physical education.

Method: This manuscript is part of a larger mixed-methods study that measured student attitude and physical activity (PA) levels of 221 students in 6th, 7th and 8th grades. Selected students (N=13; 7 girls) were interviewed at the conclusion of the F.I.T. unit through semi-structured interviews. Students were selected based on their PA levels (high and low) and their attitude scores from a baseline measurement (high and low). The F.I.T. unit was designed to deliver fitness-based knowledge and used accelerometers as a tool to measure and teach students about PA.

Results: Four themes emerged from the data analysis: (1) Technology and problems implementing it; (2) Students' enjoyment of PE/PA; (3) Homework in PE; and; (4) Potential motivational effects of technology. Discussion: The integration of technology was not seamless. The lack of access to computers at home, the accelerometers being cited as bulky and not able to be worn in all sporting events were perceived barriers. Additionally, the homework within the F.I.T. unit was not well received by students as this was contrary to their perception of the culture of physical education which was viewed as a break from school and a place to move and not work on writing or math. The accelerometer seemed to have a motivational effect on increasing students PA levels but wore off throughout the unit.
Why are some adolescents physically active and others still inactive? A mixed-methods study

Thursday, 26th July - 17:00 - Young Scholars Parallel Session - Oral

Prof. João Martins (Laboratório de Pedagogia, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa, Lisboa, Portugal & Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal)

Background: Youth physical activity (PA) levels are low, especially among girls and low socioeconomic status (SES) groups, and decline throughout adolescence (Inchley, 2016). To promote PA, an improved understanding of why some adolescents are active and others not, and how PA experiences change throughout childhood and adolescence, is needed (Wright, 2010).

Purpose: To analyze the biographical, psychosocial, educational and environmental factors related with PA in childhood and adolescence, using a mixed-methods approach.

Methods: A survey about PA correlates was initially conducted on 12th grade students (n=387) of two schools in Lisbon. Cluster analysis identified the characteristics of four groups: active (meet PA guidelines) boys and girls, and inactive boys and girls. A qualitative phase allowed analyzing the voices of sixteen selected adolescents (active/inactive, boys/girls, low/high SES) on their experiences and factors related to PA throughout childhood and adolescence. Data resulting from an individual two-hours in-depth interview was analyzed relying on the constant comparative method.

Results: Active clusters were characterized by presenting more favorable indicators than inactive clusters: doing PA in diverse contexts; PA/PE attitudes; perceived competence; mastery goal orientation and motivational climate in PE. Active adolescents’ voices revealed that they had more enjoyable PA experiences in different contexts and an improved and more stable support from family since early ages, and from friends in middle adolescence. Regardless of lifestyle, girls and low SES youth were more dependent on school or significant other’s support for overcoming PA barriers (negative experiences, low family/friend’s support, access to formal PA).

Conclusion: The mixed-methods approach allowed identifying innovative findings related to the active and inactive adolescents’ perspectives on when, how and why PA changes in different contexts throughout the transition from childhood to adolescence. Consequently, this study allowed discussing new strategies for designing PA promotion programs by taking into account young people’s voices.
German sportschools: Dual careers, chronic stress and protective resources – A three years longitudinal study comparing two different models

Thursday, 26th July - 17:00 - Young Scholars Parallel Session - Oral

Ms. Jennifer Breithecker (University of Augsburg), Dr. Miriam Kehne (University of Paderborn), Prof. Hans Peter Brandl-Bredenbeck (University of Augsburg)

Introduction
To support young athletes in their sport and school career, various federal and national types of sportschools have been established in Germany. Two models founded in 2006 are the NRW-Sportschool by the federal government of North Rhine-Westphalia (NRW) and the DFB-Soccer Elite School by the German Soccer Association (DFB). Despite these supportive structures, dual careers are still discussed controversially. Recently, stress theoretical considerations have become a research topic in sport pedagogy in order to analyze the effectiveness of sportschools – which up to now is rare.

Methods
Using validated scales on chronic stress and protective resources (Richartz, Hoffmann & Sallen, 2009) a NRW-Sportschool and a DFB-Soccer Elite School participated in a research project with three points of measurement each collected between 2011 and 2016 in four cohorts. In total, 562 students participated in the project from 5th to 7th grade. The longitudinal sample size (N=271; 160 male, 111 female) includes 60 athletes (N(NRW)=37; N(DFB)=23) and 211 regular students (N(NRW)=122; N(DFB)=89).

Results
The results of the MANOVA with repeated measures and Scheffé-test show low chronic stress of all participants caused by school, social and time pressure. With regard to time pressure the DFB-soccer students show highest scores (group: p=.011*|ƞ²=.042; time x group: p=.020*|ƞ²=.028), however, they are highly satisfied with school (group: p=.006***|ƞ²=.046). In general, all students possess a large pool of protective resources in various personal and social domains. Though, DFB-soccer students show highest scores for general self-concept (group: p=.001***|ƞ²=.057) and, consistently with NRW-student-athletes, for sport self-concept (group: p=.001***|ƞ²=.085).

Conclusion
NRW-Sportschools and DFB-Soccer Elite Schools provide a supporting framework for young athletes to meet the demands of sport, school and individual development for a successful dual career.

References
“The ‘project’ changed my life”: a retrospective analysis of Sport Education’s transformative potential

Thursday, 26th July - 17:00 - Young Scholars Parallel Session - Oral

Dr. Cláudio Farias (Faculty of Sport, University of Porto), Prof. Isabel Mesquita (Faculty of Sport, University of Porto), Prof. Peter Hastie (Auburn University)

Evidence of Sport Education’s (SE) positive impact on students’ experiences of physical education (PE) has been confined to the curricular context. This study is a follow-up to a project that investigated the participation of a 7th-grade class in a yearlong SE curriculum in the school year 2013-14. Three years later, this study provides a retrospective analysis of the transformative effect of participation in SE on the promotion of sport-related life skills, and positive dispositions toward participation in PE and physical activity (PA). The participants were 21, 10th-grade students (16-17 years-old) tracked from the original 26, 7th-grade class. Participants’ autobiographic memories were prompted through encoding-specificity techniques, the data were collected through semi-structured focus-group interviews and social networks interactions. Two themes were generated: “Sources of sustained transformative dispositions” and “Barriers, resilience, and transfer”. The data suggested that most PE experiences following the 7th-grade were framed in teacher-directed and gender-segregating format with poor instructional practices and perceptions of learning. The participants expressed greater disposition to participate in PE and extracurricular PA following the 7th grade due to a set of competencies and standpoints developed through the SE experience: increased self-perception of competence and confidence to practice sport in different contexts, augmented acceptance of individual ‘differences’ and sense of relatedness that spread beyond the gym, positive perceptions about taking ‘problems’ as subject-matter, and awareness of the educational benefits of cooperative learning. The students used “the basis of games knowledge” and “managerial skills” developed through SE to resist to structural forces such as activity-based gender segregation sustained by PE teachers, or ego-involving educational practices contained in the wider educational setting. Future longitudinal research designs should promote a phased follow-up to the participants with detailed documentation of on-going teaching practices in PE.
The purpose of this paper was to consider critically how high-performance sport coaches understand reflection and how this understanding impacted ‘reflective practice’. In coach education, the term ‘reflection’ has become a slogan disguising a range of practices – with differing understandings and the application of different approaches there is no unitary view of reflection meaning that practitioners will practice reflection in radically different ways, if at all. Reflection, therefore, is a contested concept whose meaning shifts to accommodate the interpretation and interests of those using the term. This research explores the extent of these issues with high-performance coaches who are often presented as privileging reflective practice in coaching. Data were collected from a National High-Performance coach education programme. Thirty semi-structured interviews were conducted with 19 high-performance sport coaches, and programme staff. Participant observation, including video recording, was undertaken of coach education workshops. Data were analysed thematically, with the main themes being: coaches' learning experiences, understandings of reflection, and 'impact and change' in coaching practice. Findings suggested varied understanding of reflection and reflective practice with coaches' drawing on their experiences to inform their reflective practice. The data supported notions of 'levels' of reflection with limited or no critical reflection undertaken to challenge existing beliefs and assumptions or actions striving to challenge and change established coaching practice. The research highlights the need for clear conceptual and practical understanding of reflection in the high-performance setting. Such clarity can provide coaches and coach education with the resources to access multiple levels of reflection and reap the full benefits of reflective practice in challenging and developing coaching.
The Challenge to Care in an Uncaring Football World

Thursday, 26th July - 17:00 - Oral - Developing coach knowledge and practice - Oral

Dr. Colum Cronin (Liverpool John Moores University), Dr. Amy Whitehead (Liverpool John Moores University), Prof. Zoe Knowles (Liverpool John Moores University), Dr. Kevin Enright (Liverpool John Moores University)

The harsh ‘realities’ of the elite football environment have been described in literature. For instance, elite football contexts have been characterized by authoritarianism, hierarchical deference, and masculinity (Cushion & Jones, 2006). Additionally, the environment has been described as ‘calculating’, ‘competitive’, and ‘micropolitical’ (Potrac et al., 2013). Such environments are potentially counterproductive to pedagogical practice, as recent coaching studies have argued for caring and nurturing coach-athlete relationships (e.g. Annerstedt and Eva-Carin, 2014). Accordingly, this paper explores the paradox of how coaches' care in what appears to be an uncaring football world. It does so by problematizing the experiences of a case study strength and conditioning coach; ‘Dave’ (a pseudonym). Specifically, the presentation explores Dave's naturally occurring reflective diaries, which document his unsuccessful attempts to care for an injured athlete during a very challenging Premier League season. The narrative presented argues that football coaching has much to gain from considering what coaches care about, and how they enact care? Moreover, the presentation posits that researchers should consider embracing Noddings’ (2005) ethic of care as a means to investigate coaching practice.

References


Elite Sports Coaches, Professional Knowledge, And Negotiated Participation Within Multiple Communities

Thursday, 26th July - 17:00 - Oral - Developing coach knowledge and practice - Oral

Dr. Simon Phelan (Oxford Brookes University), Dr. Mark Griffiths (University of Birmingham)

Findings from recent professional development studies have encouraged researchers, designers and educators to move beyond passive and intermittent notions of learning, to recognise more active learning opportunities, linked to practice, and supported through engagement in collaborative learning communities (Cherkowski, 2012). Such perspectives recognise learning-as-practice, bound in the embodied, cultural, and contextual processes of community activities (Fenwick, Nerland and Jensen, 2012). Yet, while valuable in framing professional development through learning in situ, many studies have narrowly focused on workplace engagement, with less attention paid to individual's membership across multiple learning communities. Within education, it has been argued that membership in any one community confers an encompassed identity, where across different communities' individuals are compelled to renegotiate and reconcile their engagement (Hodgen and Askew, 2007).

Challenges then arise for the learning developer, where in the context of a mobile workforce (i.e. sports coaching) what is needed is a better understanding of how learners negotiate learning identities throughout their practice.

The aim of this study was to examine the impact of multiple community membership on elite coaches' engagement with workplace learning opportunities. Framed around Hodkinson et al's (2008) notions of 'learning cultures', ethnographic data from 6 professional Olympic coaches makes clear the multi-dimensional environment of high-performance coaching. In doing so, the authors critically consider coaches constructed sociological identities and understandings of professional role, features which sought to mediate dispositions towards learning affordances. Notably, findings highlight the transient nature of the coaching workforce, where individuals were required to (re)negotiate shifting workplace/political boundaries, creating working and learning practices that represented socially constructed legacies of past participation. The implications of this work are to suggest that any change/learning across individuals, practices and communities is inter-linked and interdependent. Therefore, amongst organisations looking to instigate pedagogic change, there must be efforts made to ensure congruence between these features.
Coaches’ dispositions towards non-formal learning situations: An analysis of the ‘Coach Talent Programme’.

Mr. Tom Leeder (University of East Anglia), Dr. Victoria Warburton (University of East Anglia), Dr. Lee Beaumont (University of East Anglia)

It is often suggested a coach’s development occurs through a mixture of learning situations, which can be formal, non-formal, or informal in nature. Nevertheless, research which merely identifies and describes these learning situations often fails to explore how coaches’ dispositions and the ‘learning cultures’ they are engaged with influences their experiences, perceptions, and opportunities for learning. To extend the limited research on the role of non-formal learning situations on coach development, the aim of this research was to explore how coaches’ learning dispositions impacted upon their experiences of a cross-sport continuing professional development (CPD) programme entitled the Coach Talent Programme (CTP).

The CTP is delivered by a regional sports organisation. Seven coaches from five sports involved in the programme took part in semi-structured interviews. Interview questions centred on the coaches’ experiences of attending the workshops, their opinions on the content and format, in addition to their perceptions on how influential the workshops were towards their learning. Interview transcripts were transcribed, coded and analysed thematically.

Coaches experienced the CTP’s workshops differently based upon their dispositions towards learning and the learning cultures they were engaged with. Such dispositions helped facilitate social interaction and an open-mindedness to learning from cross-sport coaches, which was often prevented within their own sporting milieus. Moreover, how the workshops’ content influenced learning varied, with coaches’ dispositions towards coaching either being developed or confirmed based upon their pre-existing habitus. The findings highlight how learning cultures are permeated by social fields, impacting upon what some coaches’ value and consider ‘good learning’ to entail within non-formal situations.

This research demonstrates how coaches’ experiences of non-formal learning situations are influenced by their dispositions, learning cultures, and wider social fields. Sports organisations would benefit from recognising the influence of coaches’ dispositions and learning careers to help develop more bespoke environments for coach learning.
Engaging with academic and institutional changes: two Physical Education and Sport Pedagogy case studies

Thursday, 26th July - 17:00 - Oral - Reform, analysis and critique - Oral

Prof. Ann MacPhail (University of Limerick), Dr. Lee Schaefer (McGill), Prof. Hal Lawson (University at Albany, SUNY)

Background and purpose
Acknowledging differences in contexts, the purpose of this paper is to consider how physical education and sport pedagogy (PESP) can most effectively develop a capacity to engage with academic and institutional changes in productive, proactive ways.

Summary
Directed by Manathunga & Brew's (2012) metaphor of ‘oceans of knowledge' to understand the spaces that now define disciplinarity and interdisciplinarity, we present two international perspectives and subsequent responses (Canada and Ireland) to (a) influences we want to have through our (research) work and how they relate to PESP, (b) our intended audience and how we reach them, (c) why what we have to share with them is important (to them and us), (d) how we bring PESP to other audiences and bring other audiences to PESP, (e) how our research reflects our role identity and vice-versa, and (f) what and whom we are accountable?

Conference theme
This paper addresses the conference theme by encouraging delegates to consider the potential to access infrastructures with ‘adjoining territories' that afford PESP access to opportunities that we would be unlikely to secure as a freestanding international community.

Conclusions and implications
The paper encourages the PESP community to (i) be cognizant of the continued viability of PESP being categorized as an academic discipline, (ii) extend the groups / communities in which PESP is represented to increase the potential to access infrastructures with other academic communities, and (iii) encourage PESP to work with colleagues outside of PESP and find avenues through which to share their work to other national and international audiences.

Reference:
Conceptualising examinable physical education in the Irish context: the development of Leaving Certificate Physical Education

Thursday, 26th July - 17:00 - Oral - Reform, analysis and critique - Oral

Mr. Dylan Scanlon (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderón (University of Limerick)

Background: The objective of the study was to explore the representation of groups (and individuals within those groups) involved in the development of the Leaving Certificate Physical Education (LCPE) curriculum, an examination subject in Irish post-primary schools. This study is timely due to the national interest in the LCPE subject development in Ireland and complements work undertaken on the development of policy in examinable physical education internationally (Brown & Penney, 2017; MacPhail, 2007; Thornburn, 2007).

Methods: Goodson's (1983) work on the construction of a school subject was the underpinning framework for the study. Drawing on figurational sociology (Elias, 1978; 1994; van Krieken, 1998), the process in which the members interacted with each other and other influential groups of people, and how this effected the conceptualisation of the LCPE curriculum, was explored. Interviews were conducted with ten stakeholders who were purposively chosen due to their membership in the LCPE Development Group. The constant comparative method was used to analyse the data.

Results: Political processes of contributing to the development of the LCPE curriculum were predominantly determined by individuals, social process were determined by familiarity (or not) with each stakeholder, some stakeholders’ privileged knowledge resulted in stronger contributions and there was a deep (but limited) professional learning community across the stakeholders.

Conclusions: Such observations encourage further interrogation of the position of individuals and groups in curriculum development, and provides significant points for discussion for those charged with establishing groups of individuals (representing an array of agencies) to advise on curriculum development.
This presentation reports on a collaborative research project between Edith Cowan University and AUSTSWIM, a national and international provider of training and accreditation for swimming and water safety teaching. The research focuses on AUSTSWIM's presenter training, assessment and appraisal. This reflects that presenters are teacher educators for the aquatic industry. AUSTSWIM has over 200 accredited presenters who are licensed to run AUSTSWIM Teacher of Swimming and Water Safety courses. Empirically the project responds to the challenges of maintaining quality teaching standards in a growing and competitive industry context. Methodologically it reflects a shared commitment to empowering practitioners and supporting professional learning through research. The project is employing a design-based research approach with the intent of promoting practitioner ownership and professional learning across all stages. Design-based research involves work with practitioners to define a pedagogical problem and progressively develop, test and refine solutions in authentic, real life local contexts. In this project, issues of quality in relation to AUSTSWIM's current training, assessment and appraisal are the focus of attention in firstly, defining the ‘pedagogical problem’ and subsequently, developing, testing and refine contextually appropriate, authentic ‘solutions’.

This presentation details the research design and methods, reports findings from the first two stages of a four-phase project utilising multiple methods, and concludes by reflecting on the learnings from the project to date and discussing next steps in the research. Phase 1 focuses on the strengths and limitations of (i) AUSTSWIM's current presenter training (online and practically based) and assessment; and (ii) AUSTSWIM's current systems and processes to support ongoing appraisal and professional learning, and assure sustained quality across the presenter network - from the perspective of presenters and other stakeholders. Phase 2 involves the presenters and stakeholders exploring targeted changes to training, assessment, appraisal and professional learning to enhance system-wide quality of teaching.
Elementary school children’s physical activity during supervised intramurals as a function of a parkour unit in PE

Thursday, 26th July - 17:00 - Oral - Children and young people teaching and learning - Oral

Ms. Rosalie Coolkens (Physical Activity, Sport and Health Research Group, KU Leuven), Dr. Phillip Ward (The Ohio State University), Prof. Jan Seghers (Physical Activity, Sport and Health Research Group, KU Leuven), Prof. Peter Iserbyt (Physical Activity, Sport and Health Research Group, KU Leuven)

Background and purpose: The development of a physically active lifestyle is a core goal of Physical education (PE). Therefore, it is important to increase children's' independence from teachers. We investigated whether elementary school children's physical activity behavior during supervised intramurals was different before, during and after a parkour unit in PE. Methods: Four PE teachers from four different elementary schools each taught a 12 lesson parkour unit to one class. They also offered children the opportunity to engage in five parkour intramurals during lunch recess. During the intramurals, PE teachers only supervised for reasons of safety. One intramural was provided before, three during and one after children received the parkour unit. For the three intramurals organized during the parkour unit, contextual similarities were created by building the same landscape as in PE. Four children per class were selected for observation. In total 37 children (20 girls, 17 boys) were observed 1 to 5 times depending on their choice to participate. The time engaged in parkour was the variable of interest. Results: Only children who were observed for three or more times were retained for analysis. Boys (n=5) as well as girls (n=8) on average spent a higher amount of time in parkour activity after the parkour unit compared to before (38% vs 20% and 39% vs 25%). During the parkour unit, average parkour activity time gradually increased over intramurals for boys (17% vs 34% vs 34%). Girls did not increase gradually due to higher proportions of parkour activity time in the first intramural (45% vs 28% vs 37%). Conclusions: This research indicates that children’s PA behavior during supervised intramurals is affected by the activities learned in PE. Linking intramurals with PE seems a promising tool to positively influence children’s PA.
The history of primary physical education (PE) can provide an insight into the nature of PE in primary schools today. However, many chapters of this history remain undocumented. In an Irish context Duffy (1997) outlined the evolution of policies in school PE and sports. He concluded that there was a lack of ‘...concerted study of the position of PE in an Irish context’. This study sought to capture the voices of Irish primary teachers who reported on their views of the position of PE within society and within primary education. The voices of primary teachers who have been teaching PE to children for more than thirty years provide insights into the changing practices of teaching PE related to their personal experiences of PE as pupils and teachers, how they define PE today, factors that they think may have shaped their beliefs and understandings, and the amount and content of PE taught by these teachers today. The research question that underpinned this study was ‘What are the experiences, practices and perspectives of Irish primary teachers related to PE?’ A qualitative methodology was used to gather data from teachers (n=25) who were interviewed. Initial findings revealed that teachers defined PE in ways that were generally influenced by a health discourse with consideration of ‘the whole child’. They described their own experience of PE relating it to their teaching of PE in ways such as ‘I would have loved it [PE] and I was interested in it but I never really felt confident in [teaching] it’. This study concluded that the voice of teachers can provide particular insights on teachers as learners that could inform current practice of teaching PE while also contributing to tracing the position of PE in educational history and comparing its position across countries in time.
The empowering role of critical thinking in motor competency development in high quality primary physical education

Dr. Alison Murray (University of Roehampton), Prof. David Kirk (University of Strathclyde), Mr. George Woods (University of Texas-Corpus Christi), Dr. Bhavin Patel (Citimedical NYC), Mr. Emerick Kaitell (University of Roehampton)

High quality physical education offers pupils inclusive and accessible opportunities to acquire the skills and ‘wherewithal’ to be able adopt and maintain a healthy lifestyle. Current trends depict a reduction in pupil motor competency and subsequent skill related fitness. This is exacerbated with the growing obesity epidemic. The purpose of this study was to compare and contrast pupil motor competency, fitness related learning outcomes and critical thinking skills when delivered through a curriculum embedding one of four complementary interventions. These were set around a developmentally appropriate stability-based strength programme. Pupils addressed the controlled loss and regaining of movement stability across a variety of upper body, core and lower body movements. These incorporated resistance through body, elastics and suspension trainers (Resistance-3). Participants (N=1000) were randomly assigned. A control group received their regular physical education programme (n=250). Another group experienced the delivery of learning outcomes through the Resistance-3 (n=250). A third group adopted their current fitness approach, complemented with a pedagogical delivery through a critical thinking and learning strategy designed for Physical Education (Meta-3) (n=250). The fourth group adopted the Resistance-3 programme as delivered through the Meta-3 (n=250). Measurements were collected at two points in the school year. Proficiency of general strength stability skills were appraised. General indices of body mass index, body composition and biomotor fitness were recorded. Intrinsic motivation and the ability to critically think were appraised. Anticipated findings will reflect an increase in health and skill related fitness indices when deployed through developmentally appropriate resistance activity. Students whose teachers employed the Meta-3 cognitive strategy exhibited marked increased levels of higher order thinking. We anticipate it will show how motor competency and related learning outcomes surrounding the complexities of skill-related fitness comprehension and acquisition increase when children are provided opportunities to become agentic in their own fitness practice.
Redesigning Physical Education to Achieve Better Outcomes: International Exemplars (PART 1)

Friday, 27th July - 08:30 - Symposium - Symposium

Prof. Hal Lawson (University at Albany, SUNY), Prof. Thomas Templin (University of Michigan), Dr. Eimear Enright (The University of Queensland), Dr. Tim Fletcher (Brock University), Prof. Ann MacPhail (University of Limerick)

Physical education (PE) in countries around the world fails to meet the needs of many children, in part because dominant models have not yielded optimal conditions for PE teachers. These shortfalls are attributable in part, to outdated school structures that encourage one-size-fits-all models of education. In the United States, for example, the industrial age school promotes a standardized model of education that meets some students’ needs, fails others, and has a negligible effect on many more (Lawson, in press).

In light of these persisting structures and with the needs of particular sub-populations of young people and their teachers, Drucker’s (2008) generative question is timely. If we had not inherited PE in the way that we see it today in our host nation, would we do it the same way?

There is another stimulus for redesign. The rise of alternative models of schooling constructed to meet contemporary learners’ needs in countries around the world (Lawson & van Veen, 2016) suggests it is time for PE leaders to consider redesign alongside the continuous improvement of effective programs.

Firmly grounded in the assumption that some PE services need to be reimagined to meet the needs of today’s youth, this two-part symposium embraces appreciative inquiry (Enright et al., 2014) to envision favorable futures for PE. Contributors from seven countries (i.e., Australia, Canada, Ireland, Italy, New Zealand, Scotland, and the United States) respond to twin questions: What is going on in the name of PE’s redesign in your country? And what is needed to move redesign forward?

Authors consider these questions from three perspectives: (a) school PE, (b) PE teacher education, and (c) relations between the two. The symposium will conclude with a discussion of similarities and differences in these redesign agendas, also offering recommendations for future research, practice, and action within the PE community.
Phenomenology, embodiment and physical education

Friday, 27th July - 08:30 - Symposium - Symposium

Dr. Steven Stolz (La Trobe University), Dr. Malcolm Thorburn (University of Edinburgh), Dr. Jonas Holst (San Jorge University)

Since the rise of phenomenology in the Continental tradition in philosophy, physical education and sports pedagogy as a discipline area, or field has some ad hoc examples to call on that claim to use a phenomenological approach; however, from a philosophical point of view most of these accounts could be argued to be insufficient and unsatisfactory. Taking into consideration the tendency in physical education and sports pedagogy to objectify the body as a thing to study seems rather odd, and ignores what it means to have a worldly body (Körper) and be a lived-body (Leib) which reveals itself from within. As such, this symposium explores the conceptually rich space of phenomenology and embodiment in physical education and/or sport.
Early Years Symposium: Physical curiosity, physical development and early movement learning experiences.

Friday, 27th July - 08:30 - Symposium - Symposium

Dr. Kristy Howells (Canterbury Christ Church University), Dr. Arja Sääkslahti (University of Jyväskylä), Dr. Boris Jidovtseff (Research Unit on Childhood, Department of Sport and Rehabilitation Sciences, Liège University, Belgium), Dr. Debra Vinci (University of West Florida), Prof. Ingunn Fjørtoft (University College of Southeast Norway)

This symposium will focus on the early years (0 – 8 years) with a particular focus on developing physically, for moving throughout life and also physical curiosity. It will examine the confidence and competence of early years’ practitioners and teachers and how these adults provide movement opportunities every day for children, in line with physical activity guidelines as well as early child development policies and procedures. Physical curiosity often is seen in play especially purposeful play (Almond and Lambden, 2016) as is the first and most frequent occurring activity for young children as they make sense of their world (Howells, 2017). Children within all cultures play, Bruner, (1983) described movement and action as representation of the culture of childhood. One of the four key areas of the symposium will focus on play and the role of pedagogy within the early years’ settings. It will consider how these settings differ internationally, yet how the role of play is similar worldwide in development movement skills for young children. The second key area considers the implementation of outdoor activities to early years and offer a critical analysis of outdoor ‘playscapes’ (Fjørtoft, 2004) and how these help support children’s physical learning. The third key area will consider how teachers and practitioners can be supported in developing children physically through the use of different physical activity resources. Application of different resources and the implementation of those will be examined. The fourth area will focus on how the learning landscapes and the theory of ‘affordances’ can help motor learning through early positive movement experiences.

Links will be made within the symposium to the common international language of movement, it will consider the joy of movement; problem solving, mastery; child initiated movement and how collaboration can help develop the child to be physically active for lifelong movement.
The role of the socio-ecological factors on children’s and adolescents’ physical activity: results of the LIITU study.

Friday, 27th July - 08:30 - Oral - Inclusion and social justice - Oral

Mrs. Anette Mehtälä (University of Jyväskylä, Faculty of Sport and Health Sciences), Mr. Jari Villberg (University of Jyväskylä, Faculty of Sport and Health Sciences), Mrs. Katarina Kämppi (LIKES Research Centre for Physical Activity and Health), Dr. Sami Kokko (University of Jyväskylä, Faculty of Sport and Health Sciences)

Background
From the perspective of the health promotion, it is important to identify those children and adolescents who are not reaching the recommendations of physical activity (PA), because active lifestyle is adopted in the early childhood. The objective of this study was to examine and compare correlates of reaching and not reaching PA recommendations in a nationally representative sample of 11-, 13-, and 15-year-old children and adolescents.

Methods
Participation in moderate-to vigorous-intensity daily physical activity (MVPA) was measured by asking, “During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?”. MVPA was coded to four categories: 7 days as regular, 5–6 days as high, 3–4 days as moderate, and 0–2 days as low. The association between independent variables and dichotomized MVPA was examined using two-level logistic regression analysis.

Results
Almost all of the 21 variables added to the model explained the children's and adolescents' PA, but only three were significant in all four PA categories: less perceived barriers, voluntary PA on a regular basis and higher peer support increased the likelihood of being very active. High perceived physical performance and physical competence, screen time and attending in sports clubs on a regular basis were of great importance especially in the highest activity group.

Conclusion and implications
In this study, we identified factors that should be taken into account to reach those children and adolescents who are not physically active enough. The results also showed that the children and adolescents with different activity levels also differ from each other in terms of correlates. Challenge in design and implementation of effective interventions is the ability to take into account these differences and varied connections between the PA and the context in which it occurs.
Implementing an activist prototype pedagogical model of sport for working with youth from socially vulnerable backgrounds: Testing the strength of the critical elements

Friday, 27th July - 08:30 - Oral - Inclusion and social justice - Oral

Dr. Carla Luguetti (University of Sao Paulo), Prof. Kimberly Oliver (New Mexico State University)

Background and purpose: Over the last four years, we have developed a prototype pedagogical model (PPM) that was designed as a means of listening and responding to youth from socially vulnerable backgrounds. We used sport as a vehicle for assisting them in becoming critical analysts of their communities and developing strategies to manage the risks they face (Authors 2015, 2016, 2017). The PPM combines 5 critical elements: student centered pedagogy, inquiry-based learning centered in action, an ethic of care, attentiveness to the community, and a community of sport. This study aims to test the strength of these 5 critical elements.

Method: Participatory action research framed this 6-months study. Participants included 2 researchers, 6 pre-service physical education teachers (PST), and 16 youth ages 9-15 (9 boys and 7 girls) at a sport project in a disadvantaged neighborhood in Guarujá, Brazil. Data included: (a) field journal/observations (25), (b) youth generated artefacts (25), (c) weekly collaborative PST group meetings (25), (d) researcher debriefings (5). Data analysis involved inductive and constant comparison.

Results: The critical elements student-centered pedagogy and inquiry-based education centered in action were identified as essential in this PPM because they allowed us to identify the youths’ needs as well as barriers to sport engagement, recognizing realistic places where these barriers could be challenged and/or transformed. Ethic of care, attentiveness to the community, and a community of sport were presented in a richer and broader way giving us more insight into the needs of youth by highlighting the issues of equity and justice more clearly when the girls were included.

Conclusions and implications: By implementing our PPM for working with youth from socially vulnerable backgrounds we learned that the five critical elements not only held up for boys and girls, but we gained a much richer understanding of their importance.
Accessibility of gymnasia – Development and piloting of an assessment instrument to identify barriers of physical spaces

Friday, 27th July - 08:30 - Oral - Inclusion and social justice - Oral

*Dr. Jonas Wibowo (University of Hamburg), Mr. Frederik Bükers (University of Hamburg)*

In this paper, we present a framework of analysis to identify potential barriers in different areas of gymnasia. The framework connects physical education (PE), special needs education, and DIN standards for architecture. Following a holistic view on PE that aims to support learning of sports and other movement cultures as well as social and personal learning (Dyson, 2014), we claim that physical spaces should support all students in taking an active role in and responsibility for the realization of PE. Concerning special needs education, we draw on the ideas of Universal Design for Learning (Meyer, 2014) and Universal Design for Physical Spaces (Burgstahler, 2015). From their perspective, the physical space of a gymnasium needs to meet certain requirements to use it for teaching heterogeneous groups in general in PE, not only concerning special needs education. “When universal design (UD) is applied to physical spaces, they are welcoming, accessible, and usable for people with a wide range of characteristics.” (Burgstahler, 2015, 201).

Our framework of analysis assesses the nine qualities (1) changes in level, (2) floor, (3) color & contrast, (4) signage, (5) obstacles & clutter, (6) air & temperature, (7) acoustics and auditory considerations, and (8) lighting and shade of four areas: (a) entrances, doorways and doors, (b) locker rooms, (c) gymnasium, and (d) equipment room. According to the measurement procedure, the raters assess every area relative to each quality. The different qualities are measured with a variety of techniques, e.g. RAL-values for contrast measurement, LUX-values, ramp gradient, storage management, evenness of lighting.

To pilot the framework, we used it to rate ten gymnasia in Hamburg (Germany) and communicatively validated it through interviews with local teachers and the raters. The results indicate that the potential to reduce barriers in short-, middle-, and long-term varies between those gymnasia.
How does PE change when becoming inclusive? Empirical indications concerning the view of PE teachers

Friday, 27th July - 08:30 - Oral - Inclusion and social justice - Oral

Dr. Anne Rischke (University of Paderborn), Prof. Sabine Reuker (University of Paderborn)

Background
The reform of the education system into an inclusive one requests schools to adapt school lessons so that individualized learning can be implemented successfully (Amrhein & Dziak-Mahler 2014). This normative demand invokes questions about the differences between non-inclusive and inclusive PE and related didactic consequences. This presentation focuses on empirical findings investigating the viewpoint of PE-teachers.

Method
We analyzed data which had been collected in a bigger investigation using a questionnaire on the attitude of PE-teachers towards inclusion (Rischke, Heim & Gröben, 2017). Besides a descriptive analysis of this data (N=790), we used variance analysis to investigate differences between PE teachers with more and less experiences in inclusive education concerning their perspective on differences between non-inclusive and inclusive PE.

Results
Findings show that all PE teachers, regardless of their experiences, point out the necessity of various changes in PE. However, the comparison between teachers working in a school with or without inclusive education shows significant differences ($F_{(10,643)} = 1.998, p = .031, \eta^2 = .030$): Those who already teach at inclusive schools estimate changes to be less serious.

Conclusions & Implications
Findings indicate that inclusive education entails various didactic consequences. However, differences between more and less experienced PE teachers indicate that these changes are being evaluated differently, depending on whether the evaluations are being made on the basis of experience or on the basis of expectation. These findings supplement existing results of qualitative research in this area of research (e.g. Reuker et. al, 2016).

References


Representations of Chinese gendered and racialised bodies in contemporary media sites

Friday, 27th July - 08:30 - Oral - Social Media - Oral

Dr. Bonnie Pang (Western Sydney University), Dr. Joanne Hill (University of Bedfordshire)

The media is an influential sociocultural force and transmitter of information about gender, health and bodies for young people in the digital age. In health and physical activity, Chinese young people are often represented and positioned differently to other (minority) ethnic groups. For example, Black young people are often understood as having low academic motivations and aspirations but as ‘natural’ athletes; in contrast, Chinese young people, seen as the ‘model minority’ who excel in STEM subjects, are fragile, reserved and disinterested in physical movements. These public forms of representation may sit in opposition to the young people’s embodied identity. When these misrepresentations are internalized, issues such as micro-aggression and racism may have an impact on Chinese young people’s health and wellbeing. This paper aims to examine how Chinese bodies intersect with gender and race/ethnicity are represented on contemporary forms of media sites (e.g. Google News, LiveJournal, Medium, Wordpress). Drawing on critical discourse analysis and Foucault’s concepts of normalisation and discursive practice, the paper will problematise the often taken-for-granted gendered and racialised stereotypes related to Chinese physicality and health on media sites. Implications for developing future research and teaching resources in critical media health literacy for young people on issues related to gender and equity will be provided. The results affect how we understand, represent, and discuss Chinese (young) people on media sites, thereby how Chinese young people engage and perform their embodied identities in Western, English speaking societies.
School pupils negotiating the blurred boundaries between online and offline social contexts: implications for bodily perceptions and practices.

Friday, 27th July - 08:30 - Oral - Social Media - Oral

Dr. Sarah MacIsaac (University of Edinburgh), Dr. John Kelly (University of Edinburgh), Dr. Shirley Gray (University of Edinburgh)

Online social interaction has become integral to contemporary social life, adding new dimensions to how young people learn, interact, and perceive themselves and one another. We present findings from a year-long ethnographic study within a Scottish secondary school, where participant observation and qualitative interviews were used to explain pupils' informal social relationships. These findings evidence how pupils engaged in self-presentation within and across online and offline social contexts, whilst being under pressure to 'keep up appearances' between the two. The online environment afforded pupils with greater control over self-presentation, especially in relation to bodily appearances. Here participants had time and tools at their disposal to construct 'virtual idealised fronts' and to amass 'virtual physical capital'. In some circumstances, this virtual capital could have exchange value within offline environments. However, young people were at continual risk of having their carefully constructed identities discredited when in a face-to-face setting. We explore resulting for pupil health, wellbeing and learning and provide suggestions of how educators may respond, especially within subjects such as physical education where the body is central.
A disrupted landscape for participating in youth club sport – a study of changes in sport and leisure time activities

Dr. Britta Thedin Jakobsson (The Swedish School of Heath and Sport Sciences), Dr. Suzanne Lundvall (The Swedish School of Heath and Sport Sciences)

Introduction
Several societal and technological changes have affected youth sport and leisure time habits. The netification of leisure time has created new practices and young people have to navigate within a disrupted landscape of time, place and space.

The overall aim of the study is to explore 15 year old students’ view on leisure time and sport activities. The results will be discussed from a critical sociocultural perspective with a focus on how culture, structure and agency intersect. The findings will be compared to a similar study conducted in 2007.

Methods
The study is a follow-up, cross sectional study based on a longitudinal research project named School – Sport – Health, starting in 2001. Eight semi structured focus group interviews were conducted in 2016 (30 boys, 18 girls), based on a strategic sample of four schools that participated in 2001. An inductive qualitative content analysis guided the analyzing procedure of the empirical material.

Results
The findings show that school and friends frame what leisure time can be and are central departure points for how to act and handle leisure time activities. Lack of time interferes with the participation in organized club sport. The adolescents drive to become independent, to experience development and belonging challenge the way organized sport is figurate. Netbased activities represent flexibility, where one can choose to interact across time, place and space, as well as across gender and age. Club sport is still, for a number of students a dominant part of their leisure time, but not uncontested.

Conclusions
The findings indicate a new tension around leisure time content and quality related to practice, agency and structure. Furthermore school work and the feeling of lack of time and development, play a more central role in the teenagers’ everyday life year 2016 compared to the results from 2007.
Being a “fit girl” in social media: discourses around femininity and the healthy lifestyles of young girls

Friday, 27th July - 08:30 - Oral - Social Media - Oral

Dr. Maria José Camacho-Miñano (University Complutense of Madrid)

Background and purpose: Discourses around fitness lifestyles have been powerfully introduced in popular media with Social Networking Sites (SNS), such as Instagram, being relevant sites of public pedagogies (Rich & Miah 2014). The purpose of the present study is to understand how adolescent girls perceive, adjust or resist dominant normative discourses regarding the female construction of being fit in the digital environment and the impact of these discourses on their gender identity as physically active girls.

Method: It is an ongoing exploratory study that uses a mixed methodology. Participants are physically active girls that meet a set of requirements that aim to verify familiarity with the fitness Instagram environment. Data are obtained from various focus-group meetings with two groups of girls in a Secondary Education school. To engage adolescents in critical and rich conversation about the research topic, task-orientated activities will be used. The study considers ethical issues in researching young people and social media.

Results: Data analysis will be focused on giving voices to those young girls interacting with these digital spaces. It tries to unveil how they negotiate, criticize or reproduce the discourses about the thin, fit, white and sexy healthy female body on social media, within the broad context of our consumerist and celebrity culture. To discuss our results, we will use different critical theoretical analytic tools such as post-feminism, bio-pedagogies, surveillance and self-representation.

Conclusions: The results obtained will be a valuable tool for analyzing and reflecting upon the SNS as popular pedagogic sites of learning about health, body and gender, and the urgent need for the formal learning spaces, such as PE, to take this tendency into account. The future potential directions that this research opens up will also be highlighted.

Same, same but different - New learning and teaching tools for preparing pre-service teachers in inclusive physical education

Friday, 27th July - 08:30 - Oral - Professionalism and practice 1 - Oral

Ms. Teresa Odipo (German Sport University Cologne), Prof. Thomas Abel (German Sport University Cologne)

Introduction
In recent years an inclusive educational approach in German schools has received much attention due to the UN Convention on the rights of persons with disabilities proposals, which came into force in Germany in 2009. Transformative learning and teaching in physical education therefore becomes very important. How could pre-service teachers be prepared to face the nowadays challenges? What attitudes and teaching skills do they need to be adequately prepared for good PE lessons in the 21st century?

Methods
At the German Sport University 92 undergraduate students registered for “Inclusive Education in PE” were surveyed. Data was collected in the winter semester 2016/2017. Using the AH-PEC scale (Attitudes towards Heterogeniety in PE Classes) and SETH-PEC scale (Self-Efficacy in Teaching Heterogeneous PE Classes) (Thomas & Leineweber, 2017, 1st price winner, AIESEP Poster Award 2017).

Results
It was found that many pre-service teachers view themselves as inadequately prepared to support children’s learning within inclusive PE settings. While their attitude towards inclusive PE was mostly positive, this changed when it came to imagine teaching in their own classes. Obviously there is a strong demand for new teaching tools and another approach towards inclusive PE that requires transformative learning, linked with an increasing importance to improve pre-service teacher’s teaching skills.

Conclusions
The survey opens up new directions of teaching and learning in inclusive Physical Education Teacher Education (PETE). First insights into new learning and teaching tools to improve pre-service teachers’ education for inclusive PE based on the data collection will be given at the congress. E.g. glimpses into a Manual « Inclusive PE –Basketball for everybody » or first video sequences to open up occasions for a deeper reflexion.
Digital technology-based learning activities in physical education teacher education: Looking at students’ motivational levels and academic achievement

Friday, 27th July - 08:30 - Oral - Professionalism and practice 1 - Oral

Dr. Antonio Calderón (University of Limerick), Dr. Lourdes Meroño (UCAM Catholic University of Murcia)

Background: While a great deal of research has been and is being undertaken to explore the impact of digital technology approaches in teacher education (Henderson et al., 2015; Selwyn, 2016; Song et al., 2017), there is a lack of empirical studies within Physical Education Teacher Education (PETE). Therefore, the purpose of this paper was (a) to explore the impact of digital technology-based learning activities (DigiTech-LA) on undergraduate students’ intrinsic motivation, learning climate and academic achievement; (b) to test the relations among students’ intrinsic motivation levels and learning climate, as possible predictors of students’ academic achievement.

Method: Two intact classes (n= 110) and one lecturer participated. Every DigiTech-LA involved the creation of a series of audiovisual artifacts using web 2.0 presentation makers (e.g., Piktochart, Powtoon). Data were collected from three sources: (1) Task Evaluation and Learning Climate questionnaires (MANOVA, bivariate correlations, linear regressions and confirmatory factor analysis), (2) students’ tweets and learning blogs (content analysis), and (3) students’ individual final grade.

Results: Questionnaires’ scores and content analysis of the tweets and learning blogs showed a very positive impact of the DigiTech-LA on students’ intrinsic motivation, learning climate and academic achievement. Additionally, the hypothesized model of structural relations indicated a clear relationship among the dependent variables. Providing students with some choice in every learning activity (DigiTech-LA) enhanced their intrinsic motivation and perceived competence, while reduced the pressure on their capacity to be successful in the activity.

Conclusions and applications: A purposeful embedding of digital technology into student-centered approaches could enrich the teaching and learning experience by creating a positive and meaningful classroom environment. More empirical studies (e.g. students’ and teachers’ perceptions or ) need to be done to expand the knowledge and pedagogical considerations of these approaches within PETE programs.
Transformative pedagogical practices, teacher educators could employ, to affect the perspectives and practices of preservice teachers.

Friday, 27th July - 08:30 - Oral - Professionalism and practice 1 - Oral

Ms. Shrehan Lynch (University of Alabama)

Numerous scholars have argued that it is time physical education addressed issues of diversity and included a social justice lens to bridge social inequality in schools (Harrison & Clark, 2016; Rovengo, 2008). Thus, teacher education is morally and ethically bound to address issues of race, equity and promote social change (Cochrane-Smith & Zeichner, 2005). This is needed to raise the consciousness of multiple oppressors (power and social relations, political and economic factors, dominant and subordinate group discourses) in physical education (Azzarito, Macdonald, Dagkas, & Fisette, 2017). Teacher educators are encouraged to engage with issues of diversity and difference by becoming transformative pedagogical educators (Fernandez-Balboa, 1993). Transformative pedagogy is an activist pedagogy which empowers students to examine their beliefs, values, and knowledge in the hope to develop critical conscious agency through reflection and appreciation of multiple perspectives (Tinning, 2017). Physical education scholars have identified challenges in engaging with transformative pedagogies that include: lacking pedagogical and content knowledge (Fernandez-Balboa, 1995, 1997); pre-service teachers not being able to put perspectives into practice (Gerdin, Philpot, & Smith, 2016); and critical content having no impact on preservice teachers (Curtner-Smith & Sofo, 2004). This presentation hopes to illuminate pedagogies, content, and organizational structures that teacher educators can engage with, for transformative learning experiences to occur. Whilst transformative pedagogy is a teaching approach (Ukpokodu, 2009), the presenter recognizes it cannot be reduced to a set of methods and there is no right/single way to engage with transformative practice as it is attained simultaneously with students in the context.
Investigating Teaching Quality of Generalist Pre-service Teachers in Physical Education

Friday, 27th July - 08:30 - Oral - Professionalism and practice 1 - Oral

Mrs. Irene Polemitou (University of Cyprus), Dr. Ermis Kyriakides (University of Cyprus), Prof. Niki Tsangaridou (University of Cyprus), Dr. Charalambos Charalambous (University of Cyprus)

Research findings highlight the importance of teacher education, and call for enhancing teacher education programs to prepare high-quality teachers. This study investigated physical education (PE) teaching quality of pre-service elementary teachers during their teaching experience with and without PE-specialization, to answer the following question: “Are students who attended PE-specialization courses more effective than those who did not?”

Fourteen pre-service elementary generalist teachers participated in the study. Seven of them (non-PE-specialization) took only one required course addressing the content and effective practices, the others (PE-specialization) took three more courses relative to the content and PE pedagogy in primary school. Data consisted of lesson observations and individual interviews. Each participant was observed four times, by one observer who was using a modified version of the Task Structure System. Before-and after-teaching, teachers participated in an interview to present their teaching perspective. Observations were analyzed using non-parametric criteria. Interviews were analyzed inductively via individual-case and cross-case analysis. Coders’ observations were triangulated with the students’ teaching perspectives. Two individuals analyzed the data independently and then compared them.

During the first three lessons no significant differences were found between the two groups. By the fourth lesson, the PE-specialization students offered more progressive learning tasks and demonstrated psychomotor skills more efficiently than the non-PE-specialization students. Interviews showed that the majority of students worried about classroom management; something that was verified through the observations. After the third lesson the PE-specialization students reduced their management time. All the students modified their planned activities to have better learning outcomes.

Results showed that PE-specialization students needed time to cope with the demanding conditions of teaching PE, and effectively apply their enhanced theoretical background. This suggests that generalist-teacher education programs should offer a more practical approach to students, giving them a more realistic experience to meet the daily challenges of PE lessons.
Physical Education (PE) is a profession in which physical contact is often considered ‘normal’ or embedded in the profession. Touching has been questioned lately and studies suggest that PE teachers are confused and worried about how to act in particular situations. The decrease of touch in the last few years has recently been explored, particularly in Anglo-Saxon and Scandinavian contexts in relation to child protection discourses and current no touch policies. However, there is little research about physical contact in PE classes in Latin contexts where physical contact has usually been taken-for-granted.

The aim of this paper is to explore how pre-service PE teachers in Spain identify and negotiate touch with primary school students during their practicum. Embodied teaching journals were used to collect data among a total cohort of 40 pre-service male and female PE teachers from a university in Spain. Participants had two practicum experiences during their degree and data presented in this paper refer only to the second practicum, which is mainly focused on PE.

The findings reveal that participants attach different meaning to different touches according to physical space, age and sex of their students, or to their pedagogical practices. However, these meanings tended to change throughout the practicum. Participants considered physical contact as ‘normal’ for the profession, yet they noticed some surveillance while touching their students.

Results show that PE teachers may be more distant with their students and may try to minimise physical contact with their students. Also, this may lead to consider that all physical contact is sexualised and PE teachers may have conflicting and contradictory professional subjectivities. Finally, this topic may need to be included in Physical Education Teacher Education programmes, particularly during the practicum.
Using the features of meaningful experiences to guide elementary physical education practice

Friday, 27th July - 08:30 - Oral - Professionalism and practice 2 - Oral

Ms. Stephanie Beni (Brock University), Dr. Tim Fletcher (Brock University), Dr. Déirdre Ní Chroínín (Mary Immaculate College)

This study analyzes a beginning teacher's experiences of planning and enacting an approach to physical education that prioritizes meaningful experiences. Promoting personally meaningful engagement has been suggested as a key way that physical education teachers can provide students with transformative experiences that will influence their commitment to lifelong physical activity (Ennis, 2017). However, there has been a lack of understanding of how teachers can consistently and intentionally foster meaningful experiences for children in elementary (K-8) physical education.

METHODS: Collaborative self-study of practice methodology was used. Data from a 16-lesson striking/fielding games (e.g., softball, cricket) unit were collected and analyzed, including lesson plans, teacher reflections, critical friend memos, and semi-structured student interviews. Data analysis was inductive and iterative; themes and patterns were generated from the data as they were being collected by the teacher (first author), and her critical friends (second and third authors).

RESULTS AND IMPLICATIONS: Results demonstrate how the teacher came to use the features of meaningful experiences in physical education (i.e., social interaction, fun, challenge, motor competence, personally relevant learning, and delight) in integrated ways to guide her planning and instruction. Through committing to prioritising meaningfulness, the teacher was able to foster these experiences for students primarily through using features of meaningful experiences as a filter for her pedagogical decisions. Reflective journal entries, critical friend interactions, and interviews with students captured how she reconceptualised ways an experience may be meaningful for learners, particularly regarding the role of competition. Further, she came to think of meaning across a spectrum and to understand ways the features of meaningfulness could be experienced by learners in both the short- and long-term. This study provides specific examples of pedagogies and approaches teachers may use to prioritise meaningful experiences in elementary physical education.
The Development and Initial Validation of the Teaching Multiple School Subjects Role Conflict Scale (TMSS-RCS)

Friday, 27th July - 08:30 - Oral - Professionalism and practice 2 - Oral

Ms. Cassandra Iannucci (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Kevin Richards (The University of Alabama)

Background and Purpose. Role theory seeks to explain how individuals act and how they expect others to act based on social expectations for the roles they play (Hindin, 2007). When individuals hold differing performance expectations, role stressors (such as role conflict) are likely to occur (Richards, 2015). Iannucci and MacPhail (2017) identified a need to better understand the realities of enacting dual teaching positions within a school, as different performance expectations across the roles can lead to conflict and stress. Through the lens of role theory, the purpose of this study was to develop and validate the Teaching Multiple School Subjects Role Conflict Scale (TMSS-RCS), an instrument to measure inter-role conflict between the roles of teaching physical education and another school subject(s).

Methods. The 16 items included in the TMSS-RCS were developed through a six-step process recommended by Weiss, Bolter, and Kipp (2014). The scale validation process was conducted in a two-phase approach that involved exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Participants included 259 post-primary physical education teachers (157 female, 99 male, 3 other) in Ireland who concurrently taught another school subject(s).

Results. EFA identified a stable three-factor solution, including Schedule Conflict, Energy Expenditure, and Status Conflict. CFA supported this solution, $\chi^2(24) = 47.16, p< .001$, NNFI = .950, CFI = .967, SRMR = .069, RMSEA = .069. The validated scale correlated appropriately with conceptually similar and dissimilar constructs.

Conclusions. The TMSS-RCS provides the means to measure and understand the extent to which teachers experience role conflict when teaching physical education and another subject(s) in hopes of limiting the negative effects on teachers’ careers. With this understanding we can begin to acknowledge and address it in teacher education programs. For example, the inclusion of opportunities to prepare preservice teachers to negotiate expected challenges related to role conflict.
Curriculum for excellence: Physical education, physical activity and sport

Friday, 27th July - 08:30 - Oral - Professionalism and practice 2 - Oral

Ms. Suzanne Hargreaves (Education Scotland)

Curriculum for Excellence entitles children and young people in Scotland to two hours (primary sector) and two periods (S1-S4 secondary sector) of core physical education per week. Scottish Government invested £7.4 million pounds over 2012-2016 to support schools to meet this target and improve the quality of learning and teaching in core physical education.

Education Scotland in partnership with sportscotland created a national programme of support to improve the quality of learning and build the capacity of specialist secondary physical education teachers, primary physical education teachers and non-specialist primary teachers. This has led to a significant increase from under 5% of schools providing two hours/two periods of core physical education in 2006 to 99% of schools in 2016.

The presentation will outline the national programme of support which proved to be the catalyst for change; shifting physical education from a traditional, marginalised subject to one that plays a central role within Curriculum for Excellence. This required an innovative approach to curriculum development involving policy leads, teachers, government officials, higher education staff, local authority staff and partners around physical activity and sport.

Physical education has a much greater focus on learning with the activities providing the contexts for learning. ‘Significant Aspects of Learning’ have been identified and listed under four areas: physical competencies; cognitive skills; personal qualities and physical fitness.

The presentation will conclude by sharing lessons learned, the impact on learners and teachers and the on-going challenges for Scotland.
‘It’s just what we do!’ - Physical Educators views on preparedness to deliver Health and Wellbeing

Friday, 27th July - 08:30 - Oral - PETE research - Oral

Ms. Elaine McCulloch (University of the West of Scotland)

The whole school prominence given to HWB in Scotland has resulted in increased responsibility for Physical Education (PE) graduates and there is a need for PE to undertake a profound transformation (Fletcher & Casey, 2014). Mastery experiences during ITE and induction year contribute to the development of preparation leading to confidence or ‘teacher efficacy’ (Hoy, 2000). Given this it is essential to consider the views of early phase PE practitioners on their preparedness to undertake this increased responsibility for HWB. In initial framing of the research study, the four categories of teacher presented by Menter et al. (2010) were used as lenses for examining student perceptions.

Quantitative and qualitative data was gathered via questionnaires. This then led on to the second stage of data collection; qualitative data was collected in the form of focus groups. The first two stages of data collection happened in the participants graduating year. The final stage of data collection, which happened at the end of the participant’s probationary year, was semi-structured interviews.

The questionnaire data was analysed for descriptive statistics and common themes. The ability to capture the experiential world of the participants is of key importance and the selection of Interpretative Phenomenological Analysis (IPA) for the analysis of focus group and interview data allowed for this. This inductive method allows the researcher to focus on interpretation of meanings (Smith et al, 2009). The findings of the study indicate that participants agreed that they were prepared for their probationary year. For many participants PE and HWB were viewed as being synonymous as it was ‘just what we do!’ However variation was observed in levels of perceived preparedness to meet their responsibility for HWB. Given this it could be concluded that early phase practitioners are prepared for some aspects of HWB, but not all.
Blended Learning Experiences of Dual Career Students in PETE

Background and purpose:
Coping with the high demands of training and competitions, or championship preparation camps, student-athletes in Physical Education Teacher Education (PETE) programmes have difficulties in keeping up with their school. Managing home works and studying for the exams are a considerable issue and also absenteeism rate among student-athletes is very high because of their sports careers. Using blended learning is thought to address these problems and increase dual career students' inclusion in the process of education. Therefore, the purpose of this study was to understand the blended learning experiences of dual career students in a Physical Education Teacher Education (PETE) program in Turkey.

Methods:
The participants were 20 PETE (14 males, 6 females) students with a variety of sports backgrounds (professional athletes from team sports and individual sports). Google classroom was integrated into a 12-week pedagogical course as a course delivery medium for creating the blended learning environment according to needs of student-athletes. Case Study was used as a research design. Data was collected through semi-structured & focus group interviews and reflection notes of instructor. Data analysis was administered with a thematic content analysis.

Results:
As a result, four main themes emerged: (1) accessibility to course materials, (2) ability to follow the course timeline, (3) the opportunities for peer teaching, and (4) lastly the role of smartphones.

Conclusions and implications:
As a conclusion, besides the ways like tutorship for helping the student-athletes, using blended learning approaches can be a crucial opportunity for dual-career athletes. Universities should update their regulations and support instructors for providing online teaching opportunities to dual career students. Considering the role of smartphones in this study, mobile learning practices can be applied to further research.
Reconceptualising Pedagogical Content Knowledge in Physical Education Teacher Education.

Friday, 27th July - 08:30 - Oral - PETE research - Oral

Dr. Erik Backman (Dalarna university), Dr. Dean Barker (University of Gothenburg), Dr. Pär Rylander (University of Gothenburg)

While Content Knowledge (CK) has gained much attention in Physical Education Teacher Education (PETE) scholarship, Pedagogical Content Knowledge (PCK) has not been explored to the same extent and depth. In this conceptual paper, the overarching aim is to develop theory of PCK which complements the perspectives in PETE research building on Shulman’s (1987) concepts of teacher knowledge. The paper is built up in two steps of analysis. Firstly, we identify assumptions underlying PCK in the PETE literature. Secondly, we elaborate on perspectives of PCK that, to our knowledge, have not been explored in the PETE literature. In the preliminary analysis we have found two main assumptions underpinning PCK in the PETE literature. One is that CK must be taught and assessed separately from pedagogical contexts. The other is that PCK does not necessarily presuppose extensive teaching and assessment of CK. Building on these assumptions, we will elaborate on an integrated perspective of PCK through ‘playing’ (Thomas 2006) with established theories and ‘thinking’ metaphorically (Shoemaker et al 2004).

References
Challenges and Opportunities for enhancing PETE programmes through Digitally-Based Design Thinking

Friday, 27th July - 08:30 - Oral - PETE research - Oral

Dr. Joao Costa (University College Cork), Dr. Fiona Chambers (University College Cork), Prof. Marcos Onofre (University of Lisbon), Prof. João Martins (Faculdade de Motricidade Humana (Universidade de Lisboa) e Faculdade de Educação Física e Desporto (Universidade Lusófona de Humanidades e Tecnologias))

Background and Purpose

Physical Education Teacher Education (PETE) student teachers are Generation Z (McCrindle, 2017) or digital natives (Prensky, 2001). This generation enjoys a duplication of space (Author, 2017) where lives unfold simultaneously in both real and virtual worlds. Additionally, Connectivism (Siemens, 2005) postulates that current generations are now learning in new ways, where knowledge flows through a network and the knowledge holders or nodes are moving constantly. Subsequently, PETE needs to consider that developing new innovative curricula, pedagogies and assessment can be co-created with PETE stakeholders. To this end, the empathy-driven design thinking (DT) process (Goligorsky, 2012) presents as a potential underexplored dynamic, which uses divergent and convergent exercises to co-develop solutions to wicked problems (Buchanan, 1992). In a novel execution of DT, this paper presents a DT workshop bridging both the real and virtual world when developing an innovative approach to school placement.

Method

This action research project utilised the DT approach in both data collection and analysis. The process was further enabled by Skype business, Skype, Facetime and Twitter. It centred on one European case study [Portugal and Ireland] which comprised stakeholders in two universities. An inductive form of grounded theory was used to analyse data supported by Voyant technology.

Findings

Results indicate that participants found it difficult initially to engage with the DT process as they had not experienced the optimistic and open-minded DT approach before. The workshop leaders’ growth mindset (Dweck, 2006) allowed to creatively overcome in situ the emerging technological obstacles for enhanced engagement between participants and leaders.

Conclusion

Aligning this theory to the DT approach, on a Digitally-Based DT, holds a significant potential to expand and enhance the way PETE programmes use their inherent networks to develop a global classroom experience for PETE students and stakeholders which can drive innovation.
The impact of field-based Physical Education methods course on pre-service teachers’ beliefs toward curricular outcomes

Friday, 27th July - 08:30 - PETE Students’ perceptions and beliefs - Oral

Dr. Manolis Adamakis (School of Education, University College Cork)

Teachers’ beliefs toward curricular outcomes are important because they contribute significantly in the implementation of the national curriculum. Previous research suggested that Physical Education (PE) courses and field-based experiences might help student teachers demonstrate their beliefs about various aspects of teaching PE and have a positive impact on students’ beliefs and practices.

The purpose of this study was to examine the impact of one-year field-based PE methods course on the beliefs toward four important curricular outcomes of PE pre-service teachers from three major Greek Faculties.

The participants were 373 undergraduate students (21.02±2.33 years) from three Greek PE Faculties, of which 205 studied at Athens Faculty, 80 at Thessaloniki Faculty and 88 at Komotini Faculty. They completed twice the Greek version of “Beliefs toward curricular outcome goals” scale, a previously validated instrument, at the beginning and at the end of a field-based PE methods course. The scale consisted of four desired outcomes, namely physical activity, self-actualization, motor skill development and social development. Data were analyzed using descriptive and inferential statistics (mixed design ANOVA).

The four desirable outcomes differed significantly \( F(3,1008)=79.21, p<.001, \eta^2=.18 \), with the physical activity goal being the prevailing one, followed by self-actualization. In addition, a significant interaction was observed between the four outcomes, time and Faculty \( F(6,1110)=2.11, p=.05, \eta^2=.01 \). Finally, there was a statistically significant main effect for time \( F(1,370)=20.13, p<.001, \eta^2=.05 \) revealing a significant increase at the end of the course, however the interaction between time and Faculty was not significant \( F(2,370)=.16, p=.85, \eta^2<.01 \).

Most students considered the physical activity outcome as the prevailing one. Pre-service teachers from the three Faculties reinforced their beliefs towards all expected outcomes during the field-based methods course. Especially students from Komotini Faculty, who had the lowest initial beliefs, were influenced the most. Major average increase was observed for the physical activity outcome.
Professional learning needs of physical education teacher educators in China

Friday, 27th July - 08:30 - PETE Students' perceptions and beliefs - Oral

Ms. Yueying Gong (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Ainat Guberman (The MOFET Institute)

Background: The professional experience of Physical Education Teacher Educators (PETEds) is likely to directly affect the extent to which pre-service physical education teachers receive meaningful, relevant and worthwhile education on becoming a teacher. The majority of Chinese PETEds would like to attend further professional training (Jinxiang, 2013), and in the training process, their learning needs need to be valued (Xunfeng,2015). There is limited research exploring what their learning needs are.

Purpose: To explore the professional learning activities that Chinese university-based PETEds most value and the effective ways to meet their learning needs.

Methods: A survey based on a European-wide survey (Czerniawski, Guberman & MacPhail, 2016) was translated and distributed in China. 251 university-based PETEds from 28 provinces and different types of Chinese universities completed the survey.

Results: International exchanges or visits and action research are the most valued activities noted by Chinese PETEds. They identify subject knowledge enhancement and current developments in physical education teacher education as the most valuable professional learning activities. The cost of the professional learning activity and the reputation or authority of the professional learning providers are the most significant factors influencing their engagement.

Conclusions and implications: The majority of survey responses envision their role as a PETEd and have a strong desire to undertake further professional learning. More research is needed on international partnership work for Chinese PETEds’ and understanding and considering worthwhile professional training in order to support PETEds’ professional learning.
Beyond Bricks and Mortar: A Qualitative Examination of the Factors Influencing Diffusion of an Innovative PETE Graduate Program

Friday, 27th July - 08:30 - PETE Students’ perceptions and beliefs - Oral

Dr. Andrew Eberline (Ball State University), Dr. Emily Jones (Illinois State University), Mr. Robert Knipe (University of Texas)

Introduction: As novel approaches to post-graduate education emerge and the concepts of professional learning evolve, there is a need for additional research investigating the processes by which physical education teacher education (PETE) faculty and administrators conceptualize, launch, and evaluate non-traditional graduate programming.

Purpose: The purpose of this study was to investigate stakeholder’s perspectives of the factors influencing the diffusion of a one-year, contextually based, full-immersion master's degree in physical education.

Method: Six stakeholders involved in conceptualizing and implementing a one-year PETE graduate program representing a mid-sized Midwestern institution of higher education (n=3), a global physical fitness corporation (n=1) and a rural K-12 school district (n=2) participated in individual 60-90-minute semi-structured telephone interviews. Data were audio recorded, transcribed, and member checks completed to ensure trustworthiness. Interview data were first analyzed inductively. Constant comparison and examination for negative cases were employed throughout analysis. Initial themes were discussed among researchers until an agreement about the coding protocol was established and verified. A deductive content analysis of the emergent themes and sub-themes was then conducted using Roger's (1983) five Attributes of Innovation to guide analysis.

Results: Eleven sub-themes emerged to align with the Roger's Attributes of Innovation. The Attributes and representative sub-themes include: Relative Advantage (sub-themes: Forward Thinking and Experiential Framework), Compatibility (sub-themes: Build on an Existing Foundation, Counter to the Norm, and Navigating a Growing Chasm), Complexity (sub-themes: Behind the Scenes, Ownership and Infrastructure, and Personal/Professional Sacrifice), Observability (sub-themes: Perceived K-12 Impact and Profile of Institution), and Trialability (sub-theme: Program Evolution).

Conclusion: Findings represent stakeholders’ perceptions of factors that served as facilitators and barriers to the implementation and diffusion of an innovative, collaborative effort to deliver graduate education within a fully-immersed, contextually-based setting. Challenges and lessons learned provide insight for PETE faculty and administrators seeking to expand graduate education beyond bricks and mortar.
Application of research literature in Physical Education Teacher Education

Friday, 27th July - 08:30 - PETE Students' perceptions and beliefs - Oral

Mrs. Annemari Svendsen (University of Southern Denmark)

Background and purpose: To educate pre-service PE-teachers to become life-long learners capable of following, changing and critically discussing new tendencies in society and educational settings is extremely relevant in order to support qualified PE-practices and strong arguments for PE as a school subject. Training student teachers to become competent readers and users of research literature is in that regard a central element (Jyrhämä et al., 2008; Munthe & Rogne, 2015; Reis-Jorge, 2005). Among the main agents here are teacher educators who are supposed to have the competences to integrate research literature into teacher training. This presentation will give first-hand accounts of barriers to using research literature as experienced by a group of Danish teacher educators teaching PETE. Danish PETE educators provide an interesting case since research literature is only integrated into PETE syllabi to a limited degree (Svendsen and Svendsen, 2014) and since PETE teacher educators in Denmark in general are early in their transition to applying research in teacher training.

Method: The presentation is based on a case study of a course developed to qualify PETE teacher educators’ competences in the use of research literature. The empirical background includes six papers from the participants, detailed notes from the classes on the course and three follow-up Skype interviews. Bernstein’s concept of the pedagogic device is used to conceptually clarify different fields within the educational system and to identify major barriers in the mobilisation of research between the fields.

Results: Four main barriers and categories emerged from the analyses: (1) ‘We’re competing on time’, (2) ‘A separate approach’, (3) ‘It has to add value’ and (4) ‘It is hard to make it that academic’.

Conclusion and implications: The discussion addresses some general focus point, challenges and necessary questions for supporting the application of research in PETE.
Youth-Physical Activity Towards Health (Y-PATH) Physical Education: Meeting the needs of Irish teachers and students in second-level schools

Friday, 27th July - 08:30 - Oral - Professionalism and practice 3 - Oral

Dr. Sarahjane Belton (Dublin City University), Dr. Wesley O’Brien (University College Cork), Dr. Sarah Meegan (School of Health and Human Performance, Dublin City University, Ireland), Dr. Johann Issartel (Dublin City University), Ms. Holly Clarke (Dublin City University)

Y-PATH (Youth- Physical Activity Towards Health) is a school-based physical literacy programme. The programme focuses on developing fundamental movement skill (FMS) proficiency and knowledge of health-related activity, through quality physical education (PE) classes to improve levels of youth physical activity (PA). The programme, which began in 2010, has been extensively evaluated through a 2-year cluster randomised controlled trial (RCT) (N = 600), and has been shown to be effective in positively influencing PA participation, and the FMS proficiency of second-level students. The purpose of the current study was to refine and extend the existing Y-PATH programme in order to maximise its potential for meeting the needs of students and PE teachers, particularly in the wake of a changing curricular framework in Ireland.

Twenty six PE teachers piloted elements of the programme with first and second year students (n = 1,020) across 9 schools. Following this pilot phase, focus group interviews were used to evaluate teachers’ experiences of implementing the programme. Questionnaires were also used to assess student learning, and their opinions of PE during the Y-PATH intervention period. Data were analysed using thematic analysis.

Findings highlight positive outcomes for Y-PATH, including programme design, the variety of activities, the inclusion of visual aids for lesson plans, and the content’s alignment with the new Junior Cycle Wellbeing framework. Barriers to the implementation of Y-PATH include an over-reliance on resource cards, and the increased amount of teacher preparation time required for lesson delivery. A number of recommendations for the Y-PATH programme were conveyed, particularly in relation to time and organisation, and year 2 of the programme content.

Findings provide a solid platform for Y-PATH to align closely with the new curricular landscape for PE in Ireland, in accordance with the needs of teachers and students.
Exploring Pre-service teachers’ use of a drone to analyze game performance in a TGfU Games Course

Friday, 27th July - 08:30 - Oral - Professionalism and practice 3 - Oral

Dr. Deborah Sheehy (Bridgewater State University), Dr. Misti Neutzling (Bridgewater State University), Dr. Karen Richardson (Bridgewater State University), Dr. Heidi Bohler (Westfield State University)

Incorporating technology into the learning process is essential to meet the demands of 21st century learners who value being challenged and inspired. They are multi-media oriented, and extremely social in digital environments. Drones have been identified as an innovative educational tool, yet limited research has been conducted in physical education. The purposes of this study were to explore the experiences of pre-service physical education teachers’ use of a drone to 1) analyze game performance, 2) develop tactical solutions, and 3) to reflect on game performance. Participants were one intact class in a games course. Data collection included two, 30-60 minute pre and post focus group interviews; informal interviews; written responses to tactical scenarios; and video analysis of game performance using the Coaches’ Eye application. Data were analyzed qualitatively using constant comparison, coded and triangulated to develop categories (Corbin & Strauss, 1990). Results indicate that learning to use a drone to analyze game performance, holds promise, however, significant academic time must be devoted to support pre-service teachers’ use of the technology with time allocated to share the voice over video analysis. Problem-solving among the pre-service teachers, on how best to utilize the drone promoted creative thinking and enhanced social interaction – an important aspect of a constructivist learning environment. The bird’s eye view provided by the drone allowed students to see play develop from a new vantage point, and to identify tactical solutions. Implications for PETE faculty include the need to both be both open to embracing new technology, and to keep a healthy skepticism until researchers have more conclusive findings. Currently, drones in an educational setting, have the potential to engage 21st century learners in a novel way.
Examining the efficacy of the tasks framed by the stages of game development on upper elementary students’ learning in tennis

Friday, 27th July - 08:30 - Oral - Professionalism and practice 3 - Oral

Dr. Emi Tsuda (West Virginia University), Dr. Phillip Ward (The Ohio State University), Prof. Jacqueline Goodway (The Ohio State University), Dr. Erim Erhan (Ataturk University)

Teacher sequencing of instructional tasks is necessary for student learning (Siedentop & Tannehill, 2000). Rink (2006) proposed four stages of game development (SGD) to assist teachers in transitioning student learning from discrete skill performance to applying skills in game contexts. To date, there has been no research evidence validating that efficacy of Rink’s model. This study examined how the use of SGD impacted student learning in an elementary tennis unit.

Participants were one elementary school teacher and 41 students in 4th and 5th grade organized into the comparison (CC; n=26; 2 classes) and the experimental conditions (EC; n=15; 2 classes). The teacher taught a three-day tennis unit to the CC. Next, he received two-hours of tennis content training to introduce tasks framed by SGD. Finally, he taught a three-day tennis unit to the EC. Prior to and following the teacher training, the teacher’s knowledge of instructional tasks was assessed using a content map and categorized using SGD. Tasks used in actual teaching in both conditions were also categorized using SGD. Students’ tennis skills were assessed by a performance test on the pre-post test. Descriptive statistics were used to analyze the content map and actual teaching. Students’ learning gains were examined using a Mann-Whitney U test.

The teacher’s developed more tasks in stage two (controlling the object/body in complex and dynamic contexts) and three (integrating simple offense and defense skills) on the content map after the training (pre-2, post-8). The teacher also used more stage two (pre-7%, post-29%) and stage three tasks (pre-0, post-10%) in his actual teaching. The students in the EC had a higher gain score in the tennis skill performance test than the students in CC ($U=84.50, Z=-2.99, p=.003, r=-.46$).

The findings provide the first empirical evidence of the efficacy of SGD demonstrating that step-by-step sequenced tasks are critical for student learning.
Research Project for school sport development from a fair play, social justice and gender-based approach

Friday, 27th July - 08:30 - Oral - Professionalism and practice 3 - Oral

Dr. Pere Molina (Universitat de València), Dr. Alejandro Martínez-Baena (Universitat de València), Dr. Javier Valenciano (Universidad de Castilla-La Mancha), Mr. Joan Úbeda-Colomer (Universitat de València), Dr. Miguel Villamón (Universitat de València)

In this conference paper a research project about school sport development from a fair play, social justice and gender-based approach is presented. The project takes place in the Comunidad Valenciana (Spain) and focuses on the competition system used, as competition is a key feature in sport and central to the process of values transmission. When attention is paid to guarantee that the result is a consequence of a fair competition based on equal opportunities for all the participants, competition become grounded on values and principles that reject winning at any price. Thus, competition allows sportsmen self-overcoming and self-knowledge, discovering not only theirs motor skills and physical condition limits but also the moral limits of their acts. However, there is a problem in sports competition that ought to be addressed, that is, although sport competition starts out from equal opportunities, it finally generates differences. Fair play is useful for a fair competition development, palliating its consequences and rebalancing the system. Against this backdrop, the project draws on the difference principle of John Rawls. According to this principle, the most disadvantaged members are those who must obtain greater benefits. With that, it is sought that the competition does not generate great inequalities and, even if it generates them, the competition system activates mechanisms for readjustment. The project also incorporates a gender perspective in order to achieve equality in the participation of girls in competitive sport and tackle the problem of the categories distinction based on the sex of the athletes.
Coaches as teachers: the case of Physical Education

Friday, 27th July - 08:30 - Oral - Comparative evidence of policy engagement and professionalism - Oral

Ms. Jessica Mangione (University of Limerick), Dr. Melissa Parker (University of Limerick), Prof. Mary O’Sullivan (University of Limerick)

Introduction:
In Ireland, primary Physical Education (PE) is delivered by non-specialist classroom teachers. Consequently, growing numbers of schools are committing resources to external providers for the partial delivery of PE. Bowles and O’Sullivan (2012) found that 85% of Irish primary schools used Gaelic Athletic Association coaches as external providers to cover aspects of PE. Researchers (Powell, 2015; Evans and Davies, 2015) suggest the use of external providers (or outsourcing) in primary PE represents a consequence of the privatisation of the public system. Ball and Youdell (2007) recognise two different types of privatisation in education: endogenous (transfer of practice and techniques from the private to the public system) and exogenous (allows the private system to have an economic profit from the public system), or privatisation IN and OF education. Powell (2015) submits the privatisation trend increases teachers’ perceptions of their limited abilities to teach PE. Thus, privatisation in PE raises questions about the future purpose, quality, and content of the subject. The aim of this study is to understand how generalist teachers experience this process and what they understand and learn from the experience.

Methods:
Eighteen generalist teachers from nine primary schools across Ireland were interviewed in face-to-face interviews. Interviews were transcribed verbatim. Data were inductively analysed.

Results:
Data analysis is on-going; yet it is clear, that despite teachers’ unique experiences with external provision, there are points in common. Initial findings highlight that while teachers are supposed to learn from the external provider this is not happening in many cases. In addition, different types of school/sport partnerships have emerged from these findings.

Conclusions:
We will discuss how PE external provision is experienced by generalist teachers, and their feelings, understandings, and learning. Furthermore, the presence of different types of partnership will allow for discussion of the privatisation in Irish primary Physical Education.
Physical Education and School Sport in Denmark: New pathways and possibilities

Background and Purpose
In 2012 the Danish government initiated the biggest reshaping of public schools in forty years. From the very early discussions, key stakeholders agreed on that children and youth should be more physically active during school-day in order to promote health and well-being and to support motivation and learning in school subjects. Thus, the most recent political debates and national decision-making in relation to the Danish school-system indicates that, from the beginning of the 2000s to the present, physical activity has gone from occupying a stable, but relatively peripheral position in the school curriculum to emerge as one of the key elements in the work to promote children’s health, well-being and learning.

Methods
Building on theories of public policy, the presentation analyzes core aspects of political decision-making processes from the most recent history of Physical Education (PE) and school sport in Denmark. The presentation focuses on the policy formulation and implementation stages of a given policy-making process in which key issues are identified, made the subject of opinion-forming and dealt with through the formulation of political objectives and, finally, put into effect. Such a division is analytical. In practice, the stages overlap and all affect the final policy outcomes.

The presentation builds on a range of written material that in a broader or narrower sense can be regarded as public. Material from the daily press constitutes a key source.

Results and discussion
The presentation consists of two parts. First, the defining policy trends and processes on school PE during the period 2012-2017 is described. This is followed by a section on the current 2018-situation – focusing on the actual implementation level of the latest school reform. Finally, part one and two are compared to assess the directions Danish PE and school sport might develop in the future.
A comparative study on the physical education teacher education program between the United States and Taiwan

Friday, 27th July - 08:30 - Oral - Comparative evidence of policy engagement and professionalism - Oral

Dr. Feng-min Wei (National Taiwan Normal University), Dr. DENG-YAU SHY (National Taiwan Normal University)

A global phenomenon in teaching and teacher education is its joint tendency toward marketization. The way in which this virtual market of education operates or is driven is usually attributed to the underlying philosophy of neoliberalism. While in the common marketizing and neoliberal agenda, the teacher education programs among institutions relatively display a certain degree of diversity, rather than follow the unified neoliberal trend. This study aims to analyze and compare the teacher education programs of two institutions in the United States and Taiwan. The comparative methodology and a framework for comparison are adopted to deepen our understanding of each program and to distinguish the differences between analyzed programs. The data analyzed in present study consist of program archives, curriculum syllabi, and interview transcripts of both program director and teacher educators. Our analysis will indicate there are multiple interpretations of neoliberalism of teacher education and the process of interpretation is inevitably related to the local historical development of physical education and teacher education and the complicated controversies about teaching and learning in physical education. The selection and sequence of learning experiences in any teacher education program are not only influenced by the released governmental power and rigorous performance standards but also determined by the forces coming from professional communities of education as well as the others who own specific ideological discourses for advancing teaching efficiency. This study will highlight that there is no one teacher education program in line with complete neoliberalism or professionalism. Of crucial importance for teacher educators and administrators of an institution are the questions of what kinds of physical educators we want to prepare and what would be the ideal image for our citizens in a rapidly changing society and a highly competitive world.

Keywords: globalization, marketization, neoliberalism, efficiency, comparative education
A review of the evidence and practices supporting the UNESCO Kazan Action Plan for Quality Physical Education

Dr. Dean Dudley (Macquarie University), Prof. Aaron Beighle (University of Kentucky), Dr. Lee Schaefer (McGill University), Prof. John Cairney (University of Toronto), Mr. Andy Vasily (The KAUST School)

Abstract
The UNESCO Kazan Action Plan (2017) states that fostering quality physical education (QPE) and active schools requires provision that is varied, frequent, challenging, meaningful and inclusive. This paper investigates the defining features of this statement based upon the evidence available to date and provides teaching strategies for promoting these features in contemporary practice of physical education.

Methods
This paper reviewed the empirical evidence for the theory and practices of this statement as the defining features of QPE from a multi-disciplinary base. Further, the evidence supporting a theory of QPE and each of the components were reviewed based on broad scanning of academic databases and grey literature. Secondly, it identifies the evidence that supports each of these components from those sources. Finally, evidence-based teaching strategies for physical educators to implement these components in a productive and pedagogically appropriate manner are provided based on available evidence and practitioner experiences.

Results
In the context of educational agencies, Quality Physical Education being varied, frequent, challenging, meaningful and inclusive can be supported by a plethora literature. It was however more difficult to identify the evidence of the pedagogical requirements needed to implement these criteria.

Conclusions
This paper is the first to empirically defend and provide strategies for the implementation of the UNESCO Kazan Action plan. Furthermore, it delivers on the pledge of the Kazan Action Plan to promote research-based evidence as a fundamental impetus in fostering QPE using evidence from multi-disciplinary research (UNESCO, 2017 p 8).
Physical Education Teachers and Pedagogical Content Knowledge: An International Cross Overview

Friday, 27th July - 08:30 - Symposium - Symposium

Prof. Cecilia Borges (University of Montreal), Dr. Stefan Meier (German Sport University Cologne), Prof. Jayne Jenkins (University of Wyoming), Prof. Peter Iserbyt (KU Leuven)

Since the 90s, the categories introduced by Shulman’s typology (1986; 1987), in particular those of Content Knowledge, Pedagogical Content Knowledge (PCK) and General Pedagogical Knowledge, have generated thousands of research in education as well as in PE in different countries around the world. Although these categories were initially defined by Shulman, his typology has been enhanced by other authors. In addition, some of these categories have been interpreted and even widened in the light of other theoretical frameworks (Ward & Ayvazo, 2016). In this symposium, we aim to deepen particularly the category of PCK, in relation to the environment where it unfolds, either during the internships during the initial training or that of the school where the physical educators act. What are the outlines of PCK?

In short, this symposium will focus on: 1) The definition (and delimitation) of PCK; 2) The ways to access PCK on PE; 3) How PCK evolves and changes during the first years of insertion; 4) The link between PCK and other knowledge from PETE (content, curricular, pedagogical etc.). In other words, how students perceive knowledge from PETE once they started internships or when they became teachers in schools? Besides these questions, considering the various contributions from authors from different countries, we wish to explore the internationalization of PCK – the way in which PCK has been “translated” in their researches. The strength of this symposium lies in this crossover of both theoretical and methodological views on PCK.

References

Identifying and Motivating students who mostly need Physical ACTivity through Physical Education: Launching the European “IMPACT-PE” project

Friday, 27th July - 11:00 - Symposium - Symposium

Prof. Athanasios Papaioannou (University of Thessaly), Prof. Attilio Carraro (University of Padua), Prof. Philippe Sarrazin (University of Grenoble Alps), Dr. Claude Scheuer (European Physical Education Association)

A large number of students do not meet World Health Organization’s recommendations for daily Physical Activity (PA), while most schools in Europe do not provide opportunities for 60 minutes daily PA. Physical Education (PE) is the only setting where inactive students can be identified and encouraged to adopt regular PA. In this symposium we present the IMPACT-PE project which is supported by the European Commission Erasmus+ Sport program. The project has four major aims: (1) providing tools for PE teachers and policy makers to facilitate the identification of inactive students within PE classes, as well as low levels of PA across schools (a monitoring system); (2) providing guidelines and educational material to assist PE teachers in motivating these students to become regularly physically active; (3) creating a European network of PE teachers with expertise in PA promotion who will collaborate with researchers and policy makers to promote PA through PE; and (4) investigating the effectiveness of these outputs with regard to the promotion of students’ PA and well-being. In this symposium presenters address each of these topics and the respective strategies adopted to achieve the goals of the project. They represent a consortium of six universities, four educational authorities and three PE teacher associations including the European Association of Physical Education. The tools and educational material are going to be developed in seven European languages (English, French, German, Greek, Italian, Spanish, Turkish) and will be Open Access to all. Researchers interested in the IMPACT-PE project and its aims are invited to collaborate with the current project team and discuss ideas for future actions in this area.
Body dissatisfaction in physical education – Perspectives on relevance and didactical decisions

Friday, 27th July - 11:00 - Symposium - Symposium

Prof. Elke Grimminger-Seidensticker (TU Dortmund University), Prof. David Kirk (University of Strathclyde, University of Queensland), Dr. Charlotte Kerner (University of Brunel), Mrs. Johanna Korte (TU Dortmund University), Mrs. Aiko Möhwald (TU Dortmund University)

Body image is a multidimensional and subjective construct that integrates aspects of individual self-perceptions and attitudes towards one’s own body, particularly one’s own physical appearance (Cash & Pruzinsky, 2002). Negative feelings and thoughts about the body can result in body dissatisfaction, that may already occur in (early) childhood. It is estimated that around 40 to 45% of children aged 8 to 14 are affected by body dissatisfaction (Dion et al., 2016). Furthermore, body dissatisfaction in childhood and adolescence is associated with different psycho-social developmental risks (Stice, 2002; Johnson & Wardle, 2005). Physical education (PE) can be considered as a particular context for the social construction of the body since the body, its shape and function are a specific pedagogical focus. To date, there is little research on body image and body dissatisfaction in relation to PE. Thus, researchers will discuss from a number of perspectives in this symposium if and how body dissatisfaction has an impact on pupils’ experiences of PE, and how PE should be tailored to counter negative body feelings and experiences.

Charlotte Kerner, Leen Haerens, and David Kirk will discuss in their quantitative study if and how PE lesson content in relation to competence perception can support or hinder the development of body satisfaction.

Elke Grimminger-Seidensticker, Johanna Korte, Aiko Möhwald, and Jörg Trojan, will focus in their quantitative study on children who are dissatisfied with their body and their fears in PE as well as their preferred didactical situations.

Johanna Korte, Aiko Möhwald, and Elke Grimminger-Seidensticker, will present results from an exploratory qualitative interview study with children and their views on body and appearance in PE.

Finally, based on a qualitative study, Cara Lamb, Kimberly Oliver, and David Kirk, will present illustrations of pedagogies of embodiment experienced by adolescent girls in PE within an activist approach.
Preparing culturally competent teachers has become an important objective in physical education teacher education (PETE; Domangue & Carson, 2008). In recent years, interest in creating cultural competence has broadened to include kinesiology and youth development programs, many of which utilize a service-learning model to enhance their academic courses that work with youth (Whitley & Walsh, 2014). Service-learning is a widely used pedagogical methodology in these three fields to facilitate practitioner growth through organized course-based learning, mutually beneficial service with community partners, and reflective practices (Bringle & Hatcher, 2011). Recently, the popularity of service-learning programs incorporating sport and physical activity to promote positive youth development has increased dramatically (Holt, Neeley & Slater et al., 2017). International service-learning (ISL) adds the additional aspect of an authentic experience through service in another country. These culturally diverse transnational experiences can stimulate practitioner growth through the practice of adapting to other cultures, increasing problem-solving skills, and promoting cognitive flexibility (Cho & Morris, 2015). Additionally, these global opportunities foster the creation of strategies to avoid cultural pitfalls and misunderstandings (Grusky, 2000) and enable the development of cultural competence through lived experiences (Ward, Henschel Pellett, & Perez, 2017).

The purpose of this symposium is to address the sub-theme of Empowering practitioners and supporting professional learning and to stimulate discussion regarding the theoretical frameworks, development, implementation, and evaluation of ISL experiences. Several main points from four faculty-led initiatives will be highlighted and will include: (a) creating and implementing international experiences to enrich academic programs; (b) enhancing opportunities for professional development of practitioners through cultural competence and field-based learning; and (c) establishing collaboration with local entities to develop mutually beneficial and sustainable partnerships.
The promotion and development of a physically active lifestyle is a universal goal of physical education (PE) in many countries. Although there is a growing body of evidence demonstrating the effectiveness of interventions to increase the amount of physical activity (PA) within PE, the evidence for the transfer of student participation within those activities to leisure-time contexts remains limited. Indeed, evidence showing that ‘normal PE’ has had or is likely to have any impact on regular PA levels in the short term, let alone the long-term, is almost non-existent. Therefore, there is a pressing need to investigate how students’ experiences in PE can contribute to the adoption of a more physically active lifestyle by creating a transfer of PA behaviors learned in PE to extra-curricular contexts.

In this symposium, we will discuss the evidence and potential mechanisms for the transfer of student participation in PE to an in-school extra-curricular context. Four research studies will be presented which utilize both (quasi) experimental and descriptive case study designs to address how K-12 students may transfer their participation from a PE to an intramural sport context. Different conceptual and theoretical underpinnings will be presented to investigate the notion of transfer, and important variables both within the PE and extra-curricular contexts discussed. As discourse grows on the role of PE in the promotion of health-related physical activity, symposia such as this provide much needed discussion of the potential mechanisms and barriers for this trans-contextual transfer. Research in this area serves to provide potential for the justification of PE as a core subject matter and enhances the field’s perceived relevance to the public health agenda.

Support for Movement in School: Considering Perspectives from Multiple Stakeholders

Friday, 27th July - 11:00 - Oral - Whole school developments - Oral

**Dr. Jaimie McMullen** (University of Northern Colorado), **Dr. Katie Hodgin** (University of Northern Colorado), **Dr. Jennifer Krause** (University of Northern Colorado), **Prof. Russell Carson** (University of Northern Colorado)

**Background.** Internationally, schools have been tasked with increasing opportunities for movement integration (WHO, 2007). While the perspectives of teachers have been extensively considered (e.g., McMullen, Kulinna & Cothran, 2014; Webster et al., 2017), the perspectives of students and administrators have received limited attention in the literature (Martin & Murtagh, 2015). The purpose of this study was to explore the perspectives of multiple stakeholders (i.e., students, teachers, and the principal) with respect to movement in their school.

**Methods:** Participants in this study were from one primary school located in the Western United States, and included 31 students (Kindergarten, N = 5; 1st Grade, N = 10; 2nd Grade, N = 16), nine classroom teachers (Kindergarten, N = 1; 1st Grade, N = 4; 2nd Grade, N = 3; enrichment, N = 1), and the school principal. Students participated in focus group interviews, while the teachers and the principal were interviewed individually regarding their perceptions of movement in school. Data were analyzed inductively using open and axial coding.

**Results:** The students in this study believed that movement is good for them, they like moving in school, and they generally want more movement opportunities. The teachers identified space, time, and concern for classroom control as barriers to movement integration. They also requested additional ideas and consistently believed that movement in school is good for kids. The principal was supportive of movement but had not directly communicated this to her teachers. She also identified barriers that she believed existed relative to movement integration as time and planning for purposeful movement.

**Conclusions:** While some perceptions were consistent across stakeholder groups, there were key differences in opinions relative to movement in school. The findings of this study have implications for research and practice surrounding whole-school movement integration opportunities.
Feasibility study of a physical activity intervention based on the social ecological model

Friday, 27th July - 11:00 - Oral - Whole school developments - Oral

Prof. Amy Ha (The Chinese University of Hong Kong), Dr. Johan Y Y Ng (The Chinese University of Hong Kong), Dr. Joni Zhang (The Chinese University of Hong Kong), Dr. Cecilia H S Chan (The Chinese University of Hong Kong)

Background and purpose:
School-based physical education and physical activity interventions can be made more effective when school policy makers and parents of students are actively involved. Based on the social ecological model, we designed a physical activity intervention using a multi-component, whole-school approach, targeting students, their parents, and all school teachers and officials. The intervention includes components such as teacher professional development, addition of school activity routines, free sport equipment, student and family activity classes, and free activity trackers to promote self-monitoring of physical activity. A total of 80,000 students, parents, and school staff are expected to take part in this five-year project. With an aim to explore the views from key stakeholders prior to implementation, a feasibility study was conducted with school principals and parents.

Methods:
Principals and parents from five participating schools were invited to individual or focus group interviews, respectively. Semi-structured questions were asked to extract respondents' views on important considerations during implementation, and factors that may affect overall success of the program in terms of achieving the designated results.

Results:
Results from the interviews suggested that both parents and students may act as important agents to initiate other family members to physical activity. Schools with strong parental support initially will also facilitate such parent-school collaborations.

Conclusion and implications:
The results suggest the whole-school approach adopted is feasible and could likely lead to positive outcomes in terms of engagement from both students and parents. The effectiveness of the trial in terms of accelerometer-measured physical activity outcomes will be examined using a randomized controlled trial. Process evaluation of project components will also be conducted, and the feedback received will be used to modify project contents.
Pupils’ Views of Comprehensive Whole-of-School Physical Activity Programming

Dr. Pamela Kulinna (Arizona State University), Ms. Shannon Mulhearn (Arizona State University), Mr. Henry Yu (Arizona State University), Ms. Janelle Griffo (Arizona State University), Dr. Timothy Brusseau (University of Utah)

Background/Purpose: Systems Theory (Von Bertalanffy, 2015) and the Whole-of-School Physical Activity model (e.g., CDC, 2013) were used to frame this study to determine pupils’ perceptions of comprehensive school health change initiatives, acknowledging schools’ individual nuances (Thrupp & Lupton, 2006). Programs guided by a school-wide curricular model (i.e., Fitness for Life www.Fitnessforlife.org) including targeted teacher training, adapted to meet the needs of each school site (classroom physical activity, additional physical activity opportunities, pupils physical activity leader training, expanded equipment for semi-structured recess, learning opportunities for health behavior knowledge, community/family events, and the promotion of healthy food choices). Methods: Participants included 62 pupils from four schools in the Southwestern U.S. Pupils ranged from Kindergarten to 11th grade [girls (n=32), ethnic background, Caucasian (n=58.1%), Hispanic (n=35.5%) and African American (n=4.8%)]. Pupils completed a short questionnaire with open-ended questions and were asked what aspects of the program they liked best, if they had any challenges, and what they considered to be their biggest success during the year. Twelve pupils also participated in interviews to gain more understanding of their perspectives. Analysis/Results: Constant comparison was used to identify overall themes. Researcher triangulation and negative case searches were conducted to establish trustworthiness. Success themes included: (a) enjoying leadership experiences, (b) pupils’ improved focus in the classroom; (c) fun/enjoyment (including recess changes); and (d) exercise (more activity). Conclusion: Stakeholder pupils mentioned experiences with several whole-of-school components (e.g., Physical Education, physical activity during the school day [pupil leaders of physical activity breaks, recess], and family/community events, such as fun runs) as part of creating healthier schools. Systems theory reinforces the need to learn about stakeholder views in order to better understand complex school systems related to whole-of-school physical activity programming. These findings also support the need for these programs to be customized to meet individual school needs.
As children and adolescents continue to be overrepresented in drowning statistics, a need exists to scientifically evaluate educational interventions to study their impact on behavior change regarding water safety. A water safety program for 10-12 year old children in primary school in the Netherlands was evaluated. The Attitude-Social-Influences-Self-Efficacy model was used to assess effectiveness. Research shows that perceived utility of a program might influence effectiveness. The Unified Theory of Acceptance and Use of Technology was used to investigate if perceived utility can account for variance in effectiveness. A quasi-experimental quantitative design with an experimental group and a control group was used. Pre- and post-test questionnaires were administered to assess effectiveness. Data on perceived utility of the program was assessed with a different questionnaire, administered after completion of the water safety program. Self-report questionnaires were used. T-test analysis showed effect of the program on the variable social influences. Regression analyses showed variance in scores on attitude on the post-test could be explained by perceived utility of the program. Effect of the program on the variable social influences is in line with research on supplying coping mechanisms as an effective way of motivating people to change their behavior. Results of the regression analysis indicate that perceived usefulness of a program is important to take into account when assessing program-effectiveness. Replication and extension of this study should provide more insight into which elements work or need to be altered when designing a water safety program.
A professional doctoral program, in line with the Carnegie Project on the Education Doctorate (http://www.cpedinitiative.org/), emphasizes scholarship of application/engagement (vs discovery– as emphasized in traditional PhD programs), as well as professional advocacy and leadership development. This presentation shares best practices of an online EdD in Kinesiology program designed to promote moving from scholarship in the classroom into professional practice in the field. Boyer’s (1990) multiple forms of scholarship are introduced early in the program, and applied/engaged scholarship is emphasized throughout the program. Findings gathered from student surveys, annual reports, and course evaluations across four years of the program suggest that students developed an understanding of professional scholarship and application in three phases: 1) early course content and assignments facilitated understanding of the scholarship of application, 2) courses emphasizing mixed methods and research questions addressing problems of professional practice helped students develop research proposals grounded in professional practice, and 3) dissertation proposals were grounded in professional practice and included action plans for dissemination and application of findings. For example, one current 4th year student is examining the relationship of fitness and academic performance in elementary students from high and low-poverty schools in a large urban school district; he plans to use findings to advocate for increased physical activity options in his school district. Another student is implementing a learning module on person-centered care in the athletic training program she oversees; that module will not only serve her program but be a model for others. This presentation will provide further details on the three phases and offer implications for continuing research on professional doctoral programs that help students become scholarly professionals who put that scholarship into practice.
Physical education pre-service teachers’ perceptions of the subject and profession - development during the professional socialization

Dr. Magnus Ferry (Umeå University)

Background

Studies using occupational socialization theory is inconclusive in relation to the impact of PETE on PSTs’ beliefs and perceptions of their future profession. Some studies indicate that PETE only have limited, if any, effect (cf. Adamakis & Zounhia, 2016), while other studies have found that PETE can successfully challenge PSTs' beliefs (cf. Richards et al., 2014). Influenced by occupational socialization theory, the objective of this study was to investigate the development of PSTs’ perceptions of the aim of PE and their future profession as PE teachers during PETE.

Methods

This study used web-surveys answered by PSTs’ at the beginning and end of a 5.5 year PETE program at a Swedish university. In total, 179 PSTs (105 men, 74 women) responded during their enrollment between 2005 and 2012, and 68 (41 men, 27 women) after completing the program between 2010 and 2017. This study focused on the questions addressing the PSTs' beliefs and perceptions of PE and PE teachers.

Findings

Unlike most studies, this study show that PSTs’ perceptions of PE and their future profession develop during PETE, at least on a group level (p<.05). At enrollment the highest valued characteristics for a good PE teacher where pedagogical competence (23%) and being considerate (19%), while possessing subject knowledge (28%) and being able to motivate pupils (19%) at completions of PETE (p<.05). The results also show that perceptions of a good PE lesson change from enrollment, where PSTs' suggest that a good lesson should be adapted to all pupils (21%) and be fun and inspiring (18%), to be well planned (24%) and develop pupils’ skills (21%) at completion of the program (p<.05). To understand these results and possible reasons behind this development, a deeper analysis of the organization and content of the specific PETE program is required.
Sport Education in Community-based programmes: a research on social workers implementation

Friday, 27th July - 11:00 - Oral - Professional socialisation and career development - Oral

Dr. Luis M. García-López (University of Castilla-La Mancha), Dr. David Gutierrez-Díaz del Campo (University of Castilla-La Mancha), Dr. Jaime Serra-Olivares (University of Castilla-La Mancha)

Youth disaffection is a complex phenomenon encompassing a wide range of behaviors, attitudes and experiences (Newburn & Shiner, 2005). Sport Education (SE) is a pedagogical model which has been found effective for personal and social development, when using specific ethical strategies (Harvey, Kirk, & O’Donovan, 2014). Social workers and volunteers usually develop community-based programs. In this research we tried to explore what difficulties are observed and solutions are provided by social workers when implementing SE in an extracurricular setting with disaffected children, and how SE influences on the behaviors of disaffected children. Participants were three social workers and 31 children from three low-social neighborhoods of a Spanish city. The principal investigator performed as a participant observer. The SE season lasted 30 lessons of 60 minutes. Social workers attended a 20 hours course, and every two lessons a coordination session was held to analyze the difficulties encountered by social workers and to plan the next two lessons. One in every three lessons was video recorded, as well as all work meetings were audio recorded. The main researcher carried out a diary and four focus groups were developed. Data analysis was transcribed verbatim, and qualitative analysis of data was conducted. Results indicate that it takes much longer to implement the SE in this setting, the roles have to be introduced more slowly, some important roles such as that of the referee and coach should be modified regarding their usual status, reinforcements to fair play must be intensified. Social educators have been able to apply the model following the corresponding benchmarks, although they needed more time to understand and carry out the pedagogical resources of the models. Pedagogical tools as SE should be used in extracurricular sport, so it is recommended that university programs expose social workers to this model.
Effects of a 6-Month Coaching-Program on Pedagogical Quality for Sports Coaches

Sports training is supposed to improve children’s performance but also to facilitate psycho-social development and optimal motivational orientation for lifetime physical activity. Pedagogical quality, therefore, refers to features of coaches’ behavior that effectively promote learning and developmental gains as well as a high quality of motivation. The Classroom Assessment Scoring System (CLASS, Pianta, La Paro & Hamre, 2008) is a validated observation instrument for measuring pedagogical quality in classroom activities. Many indicators of effective teaching in classrooms also apply or can easily be adapted to sports training: Creating a positive climate, being sensitive for participants’ problems and needs, managing behavior effectively, fostering interesting and expedient activities, providing engaging and effective feedback etc. Since CLASS provides detailed information about effective teaching behavior, it can be used as a research based framework for the training and development of sports coaches. In the present project, two different intervention formats for coaches are contrasted: among participating in a workshop dealing with pedagogical challenges and the CLASS dimensions as well as access to an online-platform with best-practice-clips, one group participates in an individual coaching. Every 4 weeks, the coaches of this group (n=16) retrieve feedback based on video-footage of their own training. This feedback consists of targeted and commented video-sequences and an online coaching-dialogue. Measures for the effects of the intervention, which is arranged in a pre-post-follow-up design, include CLASS-scores on coaches’ behavior and educational beliefs on coach-level and perceived need-support, need-satisfaction and motivational orientation on student-level (n=169). Data collection will be completed at the end of March. Therefore, comparisons between the athletes of coaches in the control and intervention group before and after the coaching will be reported.

Heterogeneity in Physical Education – most important differences among students and teachers’ support needs to deal with them

Friday, 27th July - 11:00 - Oral - Understanding learners, learning and difference - Oral

Dr. Ingo Wagner (German Sport University Cologne), Ms. Fabienne Bartsch (German Sport University Cologne), Dr. Bettina Rulofs (German Sport University Cologne)

Background
Students’ heterogeneity seems to have a special relevance in Physical Education (PE), because of its focus on body and movement. To better prepare (future) PE teachers to deal with this heterogeneity, the following research questions are addressed: (1) Which heterogeneity differences among students are relevant in PE from the point of view of PE teachers and students? (2) What support needs do PE teachers express for dealing with students’ heterogeneity? The study is part of the project “School Sport 2020”, which aims at empowering PE teachers to create a sustainable future through supporting heterogeneity.

Methods
Initially, a theoretical framework of possible heterogeneity dimensions and characteristics was developed by reviewing the current state of research (e.g. Gardenswartz & Rowe, 1995). On this foundation individual interviews with 31 PE teachers from various types of schools in the German state of North Rhine-Westphalia and 16 group interviews with 68 students from grades 7 to 9 were conducted. Additionally, the needs of 858 PE teachers concerning challenges associated with heterogeneity (e.g. Casebolt & Hodge, 2010; Mangope et al., 2013; Morley et al., 2005) were surveyed in an open question of a written questionnaire. The data was analyzed by means of a qualitative content analysis.

Results
The results confirm the high relevance of various differences. In particular, body- and behavioral-oriented heterogeneity differences among students are considered to be of great importance for PE. For dealing with those differences, PE teachers mainly express personnel and knowledge support needs.

Conclusions
Based on the results it appears necessary to further refine the developed heterogeneity dimensions while also considering the subjective construction processes of differences. To address related personnel and knowledge support needs, potentials of multi-professional teams consisting of PE teachers and special education teachers could be explored in future research.
Teaching heterogeneous P.E. classes – challenges, problems and benefits

Friday, 27th July - 11:00 - Oral - Understanding learners, learning and difference - Oral

Mrs. Helga Leineweber (German Sports University Cologne.)

Background & Purpose
Heterogeneity/diversity in classrooms seems to be on the rise. The three main categories of heterogeneity comprise segregation along body-oriented, social (residential, spatial) and economical differentiation lines (Lutz & Wenning, 2001). These categories are also relevant for P.E. classes, however, body-oriented and sports related differences together with social-emotional deficiencies prove to be of special importance (Leineweber & Thomas, 2017). The study presented aims to gain a deeper understanding of how P.E. teachers cope with these challenges and problems, but also investigates the benefits.

Methods
The goal is to videograph and subsequently interview 20 P.E. teachers from different primary and secondary schools. As of now, 5 video-takes and stimulated-recall interviews have been conducted, all in heterogeneous settings. The interviews are being analysed according to Grounded Theory Methodology (Glaser & Strauss, 2017) and the videos by reconstructive video analysis (Herrle & Dinkelaker, 2016), respectively.

Results
Preliminary findings suggest that teachers have developed pragmatic ways to deal with heterogeneity in their P.E. classes with regard to teaching methods, choosing and staging sport contents or communicating and interacting with pupils. However, below a surface level, there seems to be evidence of teachers struggling with job-related contradictions (Helsper, 2016) and inadequate teaching conditions. These seem to become especially relevant with respect to the heterogeneity categories named above. Strategies vary from distancing oneself from problems (rhetorically and in teaching action) to actively addressing challenges and developing solutions together with pupils which results in viewing heterogeneous P.E. classes as a benefit.

Conclusions
These different approaches have to be investigated in more detail in order to elucidate personal dispositions and attitudes as well as teaching conditions supportive of proactive problem solving strategies in P.E. Findings ought to be used for improving teacher education at university level as well as further training on the job.
Individual support of student athletes in physical education – Dealing with motivational conflicts

Friday, 27th July - 11:00 - Oral - Understanding learners, learning and difference - Oral

Ms. Kathrin Weiß (Augsburg), Prof. Hans Peter Brandl-Bredenbeck (Augsburg), Ms. Lena Kroll (Augsburg), Ms. Jennifer Breithecker (Augsburg)

Introduction
Finding professional and innovative approaches to cope with increasingly complex aspects of heterogeneity in physical education (PE) is one of the central future challenges of sports pedagogy. Mostly – and certainly not without reasonable justification – the focus is on those who perform less well in PE. The project „LeSeif“ at Augsburg University focuses on ways to increase teacher professionality concerning the support of student athletes.

Student athletes are often confronted with motivational conflicts concerning the challenge of balancing conflicting academic, athletic and leisure goals. Common examples for strategies to cope with these conflicts are multitasking or sticking to a linear and time-saving order. Empirical findings on motivational conflicts confirm their negative influence on performance in at least one of the conflicting areas as well as on Well-Being and achievement motivation (Hofer, 2017).

“LeSeif” examines specific parameters which determine the occurrence and frequency of inner motivational conflicts. Further research questions are: Which influences on the execution of actions do these conflicts have? Which strategies on how to deal with these conflicts do exist and which ones are most effective?

Methods
The survey focuses on two different sport-related school types in the German school system, offering the possibility to take into account their respective concepts of individual support for student athletes. A validated questionnaire based on Hofer's (2017) theory of motivational action conflicts is used as well as scales on Well-Being and performance. Several items have been modified for the sports context. Data acquisition starts in January, 2018.

Results and Conclusion
The data is analyzed with regard to the most effective concept of dealing with motivational conflicts for student athletes and the relationship to Well-Being, achievement motivation and performance. In July 2018, first results of the survey will be presented at the AIESEP conference and first conclusions can be discussed.
**Thinking while Moving: Using the RE-Aim framework to evaluate the effectiveness of teacher professional learning**

**Friday, 27th July - 11:00 - Oral - Understanding learners, learning and difference - Oral**

*Dr. Nick Riley (University of Newcastle), Prof. Philip Morgan (University of Newcastle), Prof. David Lubans (University of Newcastle), Dr. Myrto Mavilidi (University of Newcastle)*

**Purpose:** Many Australian schools are failing to provide children with the necessary skills or opportunities to become physically active across the lifespan. Education authorities, school executives and teachers are reluctant to make policy and programming changes for issues they perceive to be outside the core business of student learning. Integrating physically active lessons into the mathematics curriculum has the potential to increase physical activity, reduce sedentary time and enhance learning.

**Methods:** Building on the success of the EASY Minds cluster RCT for improving student physical activity levels, and academic outcomes an evidence-based professional learning workshop (Thinking while Moving) and online resources were developed for dissemination. During 2016-2017, 21 workshops were presented across NSW, Australia, for teachers (n=482) from public schools (n=282). Follow-up surveys were administered and a stratified random sample of participants were interviewed using a semi-structured discussion framework.

**Results:** Evaluation revealed high participant rating (out of five) for positive impact on teaching skills 4.83 (.43) and confidence to teach movement-based mathematics 4.71 (.47). Survey and interview data revealed that 87.5% of attendees developed their own lessons since attending the workshop, and over 50% have integrated physical activity in other curriculum areas. Themes emerging from qualitative analysis included improved student mathematical engagement and motivation, and barriers to implementing integrated lessons prevail. Interestingly 95% of participants expressed a desire to attend similar training to align physical activity with the school English curriculum.

**Conclusions:** The Thinking while Moving program was successfully implemented as dissemination supported by the Department of Education, and was highly rated by teachers. Programs that are designed to increase children's physical activity and also enhance their academic outcomes are likely to be particularly attractive to teachers, especially if they are designed in partnership with education authorities (e.g., NSW Department of Education), who have a vested interest in dissemination.
According to Whitehead (2016), physical literacy can be described as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life. Whitehead’s definition is important in understanding how the construct of physical literacy is likely to surface as a result of students’ learning experiences throughout their years of formal educational instruction. Researchers from across the globe have deconstructed physical literacy to varying degrees, and have provided a plethora of considerations for practicing educators and policy makers. These considerations have resulted in rich discourse at various levels of education across Canada, but questions remain around effective implementation and teacher practice. The purpose of this case study was to explore the efficacy of an evidence-based model for implementation of physical literacy in the school setting. Rather than seeking a definitive answer to one leading question, this study examined how a constructed, evidence-based implementation model of the theoretical framework of physical literacy works in practice. Case study enables the inclusion of many different types of information as data – each with its own rationale and purpose (Stake, 1995 & Yin 2009), including interviews, observations, and various documents, including lesson and year plans. Research was conducted in a large urban high school with a high immigrant population. The scope of the research consisted of three Grade 10 teachers each teaching very different physical education classes (‘regular’, ‘active living’ & ‘sports focused’). The participating teachers, with guidance and support from the researchers, implemented the proposed model of physical literacy in their classes consistently throughout the term. Teachers in the study each applied the model differently and also provided feedback to improve the design. The study has implications for both practical applications and rationale of what has become a popular, but at times contentious, theory.
Physical literacy is a term and concept that has, in recent years, been gaining in both usage and popularity in many Western physical education (PE) contexts. This has been particularly true within Canada, as well as within the United Kingdom, the United States, Australia, and New Zealand. However, the initial introduction of physical literacy as well as its subsequent uptake has not been without disagreement—marked at times by uncertainty, confusion, and resistance. Still, we believe that given the central and privileged place of physical literacy within the Canadian PE context, it would certainly be ideal for PE teachers to share a common understanding of it. Recognizing physical literacy’s burgeoning popularity and our belief about the importance of such a common understanding amongst PE teachers, we recently completed a qualitative case study in which we interviewed 12 lead PE teachers from all four Atlantic Canadian provinces, whereby we aimed to gain knowledge about their understanding of physical literacy. More specifically, our research question was, “How do Atlantic Canadian provincial PE leaders define and understand physical literacy?” Our results suggest that these leaders are largely unable to articulate conceptions of physical literacy that are in line with contemporary perspectives espoused by Margaret Whitehead and the International Physical Literacy Association. This paper, then, describes their physical literacy (il)literacy. These descriptions are offered as they relate to four themes: 1) physical literacy means (almost) the same thing as physically educated, 2) physical literacy means moving in many ways and places, 3) physical literacy means knowing the language of movement, 4) and physical literacy means fundamental movement skills. In light of our findings, we also offer a discussion about these (mis)understandings about physical literacy.
**The challenges of measuring physical literacy**

Friday, 27th July - 11:00 - Oral - Physical literacy - Oral

*Dr. Billy Harvey (McGill University)*

Physical literacy has become a widely-used term in physical and health education circles. It demonstrates tremendous potential to have significant and long-term effects to draw society's attention to the physical activity, health and well-being needs of all people. However, there has been a recent debate about how physical literacy may be measured (Robinson & Randall, 2017; Tremblay & Longmuir, 2017). This presentation will provide information about differing routes that have been used to measure physical literacy by researchers from an evidence-based perspective. This information is expected to encourage a group discussion about the discourse surrounding the measurement of physical literacy as well as the current stage of development that the construct may be in. Innovative measurement strategies will be required to assess physical literacy in research and applied settings. Furthermore, physical literacy may also mean many different things to teachers, researchers and the community at large because it seems that its definition and measurement may change rapidly over time (Harvey, 2014). Hence, a critical discussion will also develop during the presentation about the teaching and policy implications of the term for physical education teachers. For example, since physical literacy may be a difficult construct to measure, how will physical education teachers be expected to achieve physical literacy for their students? How will physical education teachers receive and/or learn appropriate information about physical literacy to inform their teaching practices? The presentation will conclude by identifying key intersections between research, teaching and policy issues in the context of physical literacy. Therefore, this presentation will address the following main conference theme and subthemes: (a) enhancing connective possibilities for physical literacy by discussing links between measurement, researcher and physical education teacher practices, (b) policy engagement and (c) practitioner empowerment and support for professional learning.
Developing and supporting physical literacy in the Foundation Phase in Wales- a sustainable cross sector approach.

Friday, 27th July - 11:00 - Oral - Physical literacy - Oral

Dr. Nalda Wainwright (University of Wales Trinity Saint David), Prof. Jacqueline Goodway (The Ohio State University), Ms. Amanda John (University of Wales Trinity Saint David), Ms. Kirsty Edwards (Wales Institute for Physical Literacy)

Background and purpose
The Foundation Phase in Wales is a holistic play based curriculum for pupils aged 3-7 years. Research into the implementation of the foundation phase found that despite making a positive contribution to physical literacy some aspects of pupils' motor skills (object control skills) were not developing due to a lack of teacher expertise (Wainwright et al., 2016; 2017). This is specifically concerning as object control competence in young children has been associated with physical activity levels. This presentation outlines a cost effective and sustainable programme of professional development to address this gap in pupils' motor development.

Summary of main points
Drawing on the evidence based programme, Successful Kinaesthetic Instruction for Pre-schoolers (SKIP; Goodway & Branta 2003), the Wales Institute for Physical Literacy developed a programme of professional development for teachers called SKIP-Cymru to fit with the playful pedagogy of the Foundation Phase. This was implemented in schools across West Wales and found to have a significant impact on pupils' motor development, confidence, attendance and engagement in learning as well as staff confidence and parental engagement (Wainwright et al., 2017).

Conference Sub Theme -Empowering practitioners and supporting professional learning.
This regional approach empowered foundation phase staff, regional sports development officers, coaches and leisure staff through a programme of professional learning in children's motor development and pedagogy. Through training and sustained mentoring this approach built capacity in communities. Staff collaboratively worked with colleagues across sectors to developing a culture that valued physical development and opportunities for moving in all aspects of learning. Additionally, staff ran parental engagement sessions promoting developmentally appropriate family activities with their children.

Conclusions
This cost effective and sustainable approach focuses on developing understanding and collaboration across sectors and building local capacity for change.
Continuing Professional Development through a learning community in a full-time Brazilian school

Friday, 27th July - 11:00 - Oral - School-based teacher learning - Oral

Ms. Luiza Goncalves (University of Sao Paulo), Dr. Carla Luguetti (University of Sao Paulo), Dr. Michele Carbinatto (University of Sao Paulo), Dr. Melissa Parker (University of Limerick)

Background and purpose: There is a growing body of literature highlighting the benefits of learning communities (LC) as a means to achieve an effective continuing professional development (CPD) (Parker & Patton, 2017). From a situated learning perspective (Lave & Wenger, 1991), in communities teachers learn to be teachers in a social context, together with their colleagues, by reflecting on their practice. While this type of professional learning has become common in many parts of the world, it is not in Brazil. The aim of this study is to explore the CPD of physical education teachers in a full-time Brazilian school.

Methods: Participants included 10 physical education teachers from one full-time school in Brazil. This study is a two-phased project. During Phase 1, through non-participant observation, the aim was to understand how the CPD of participants occurred. During the second participatory action research phase the aim was to explore the implementation of a learning community as CPD strategy. Data collection included: (a) weekly observations, (b) weekly collaborative teacher meetings, (c) teacher interviews. Data analysis was inductive using constant comparison methods.

Results: In phase 1, only a few core features of effective CPD described by Patton et al. (2015) were observed; namely, CPD was ongoing, sustained, and focused on improving learning outcomes for students. During this time, the teachers worked full-time and had weekly meetings aimed at planning their classes and discussing possible challenges. We also observed that one teacher had the role of mediating the meetings and negotiating the teachers’ needs with the school administrators.

Conclusion and applications: We concluded that while a few core features of effective CPD existed, these features did not guarantee the creation of a LC. Future studies should encourage the development of LCs in Brazilian schools to further enhance teacher professional learning and development.
Lesson Study: A Novel Approach to PE Teachers’ Professional Development

Dr. Menno Slingerland (Fontys University of Applied Sciences), Ms. Bregje van Dijk-van Eijck (Fontys University of Applied Sciences), Prof. Leen Haerens (Ghent University), Dr. Lars Borghouts (Fontys University of Applied Sciences)

Background and purpose
Lesson study is a systematic and collaborative in-school approach to professional development (PD) that has been identified as a powerful tool for teachers to examine their practices and enhance student learning (Cheung & Wong, 2014; Lewis, 2014). In the challenging search for effective PD for PE teachers (Armour et al., 2015) lesson study might therefore be a promising vehicle to better engage PE teachers in learning and developing their teaching practice. Nevertheless, this approach has not received much attention within PE and it is thus unclear to what extent lesson study could truly be an effective and feasible means of PD for PE teachers. Therefore, the aim of this research was to determine the effectiveness and feasibility of lesson study as an approach to PD for PE teachers.

Methods
A quasi-experimental study design was employed. University partnership schools were approached to take part in the study. Twenty PE departments agreed to participate and were assigned to an intervention or a control group. Both groups first received a workshop at the university. The control group was then only prompted to implement these new ideas in their practice, whereas the intervention group engaged in an on-site lesson study cycle (duration 5-6 weeks). Measurements were based on Guskey's (2000) five critical levels of PD evaluation: (1) teachers' reactions, (2) teachers' learning, (3) organizational support and change, (4) teachers' use of new knowledge and skills, (5) student learning outcomes. Data were gathered through questionnaires (1, 5), focus groups (1,2), interviews (3) and video observations (2,4).

Results
As this project is still on-going, the first results will be presented here, aimed at Guskey's levels 1, 2 and 4 (focus group and observational data).

Conclusions
These results will provide insight in the effectiveness and feasibility of lesson study as PD for PE teachers.
Tracking primary generalist teachers who completed the inaugural specialism in physical education - their observations, thoughts and experiences.

Friday, 27th July - 11:00 - Oral - School-based teacher learning - Oral

Dr. Maura Coulter (Institute of Education, Dublin City University, Ireland), Ms. Susan Marron (Institute of Education, Dublin City University, Ireland)

Study in progress

Initial teacher education (ITE) programmes should provide opportunities for pre-service teachers (PSTs) not only to build upon and refine their professional learning, but also to help them feel confident, comfortable and capable of teaching high-quality Physical Education (PE) to young students (Kirk 2005; Petrie 2010). Tsangaridou (2014) believes that teacher educators should seriously consider more effective ways of educating PSTs for this purpose, by offering a specialisation in PE for primary teachers within ITEs. Tsangaridou (2014) also believes that discourses and accounts exploring and discussing how teacher education programmes have prepared skilled primary teachers to teach PE are also needed.

This qualitative study tracks graduates (N=4) who have undertaken the inaugural specialism in primary PE, in Ireland, as part of their generalist undergraduate degree. It is designed to elicit these graduate teachers’ experiences of their first three years teaching PE in primary schools. Data collection included: individual interviews, pre-teaching (Sept 2016) and on completion of each school year (June 2017, 2018, and 2019). The interview data were transcribed and entered into NVivo (QSR NVivi V11) and analysed using an interpretive approach. All transcripts were categorised and themes were generated using systematic content analysis (Charmaz, 2006).

Initial examination of the findings highlight (a) the variety of teaching positions the graduates undertook (b) observations on how PE is viewed and taught in their respective settings (c) how during the school year their PE knowledge is being recognised by staff members seeking advice and support (d) key learning moments while teaching PE and (e) opportunities that arose to lead PE initiatives in their schools; The graduate teachers reported being confident in their PE teaching as beginner teachers but had concerns specific to their local contexts.
Models-Based Practices: Problematizing the M and the P in MBP

Dr. Ashley Casey (Loughborough University), Prof. Hakan Larsson (GIH), Prof. Ann MacPhail (University of Limerick), Prof. Mikael Quennerstedt (Örebro university)

Background/purpose:
While some argue that Models-Based Practice (MBP) has a number of laudable and desirable ambitions and outcomes (Kirk, 2013), others contend that those advocating for MBP must be mindful of wider debates in the field about the overall purpose of physical education and Sport Pedagogy (PESP) (Dillon et al. 2016). The purpose of this presentation is to begin to articulate the types of questions PESP might consider now and in the future as regards the M and P in MBP.

The main points:
The overarching intention of MBP is the achievement of specific, relevant, and challenging learning objectives that apportion more time for learners to be engaged with learning, and which ultimately strives toward particular outcomes relative to each model. Interestingly, however, the preferred perspective researchers have pursued in MBP-related research is that of the teacher and to a lesser degree the coach (Casey, 2014). Whilst there are those who have focused on the learner (Hastie, 1998), the aim of this presentation is to present a number of questions about MBP; questions about the what, how, why, who, when and where of teaching, learning and context.

Addressing the themes:
We address the sub-themes by considering the ways in which our understanding of MPB might be better focused to pedagogically engage learners in transformative learning and teaching. Further, by asking questions of practice we are better able explore innovative perspectives on PESP.

Conclusions/implications:
This paper concludes by problematizing the M and the P in MBP and the notion that practice, when related to models, become singular. We argue, given the diversity that exists in schools, states and countries as well as the diversity between young people, that the idea of a practice should be expanded into practices and, in doing so, acknowledge the multifarious ways in which learning might become manifest.
An investigation of the relationship between physical activity parenting practices and child physical activity behaviours in Ireland.

Friday, 27th July - 11:00 - Oral - Physical activity - Oral

Background and Purpose: Physical activity (PA) parenting research has increased over the past two decades, with findings verifying the significant and positive role that parents can play in promoting and supporting youth PA (Gustafson & Rhodes, 2006). The purpose of the study was to investigate patterns of PA parenting practices and child PA behaviours in a sample of families from the Growing Up in Ireland child cohort. Growing Up in Ireland is the national longitudinal study of children in Ireland. Methods: A purposive sample of 120 families participated in the qualitative study and included children from a variety of backgrounds in terms of family structure, socio-economic status and geographical location. Numerous topics were explored in the semi-structured interviews with parents and children. The Integrated Model of PA Parenting (Davison et al. 2013) was used to consolidate PA parenting practice data from the interviews. The model proposes three key domains of PA parenting practices: neglect/control, autonomy support, and structure. The parent and child transcripts were analysed using the constant comparison analysis (Boeije, 2002). Results: The PA parenting constructs of encouragement, involvement, facilitation and co-participation feature dominantly in the data, especially in relation to structured sport activities in comparison to unstructured activities. Parents who indicated an active lifestyle or who valued PA adopted PA parenting practices that promote child PA. Parents who perceived their child to be athletically competent reported positive PA parenting practices (autonomy and structure). Conclusions: This study identifies how Irish parents engage in PA parenting practices and complements the international knowledge base on how parents influence children’s PA behaviour. Identifying and improving parents’ knowledge about all PA parenting practices is an essential step for PA parenting interventions.

Does movement ability in adolescence matter in young adulthood? A longitudinal study of “taste for sport and physical activity”.

Friday, 27th July - 11:00 - Oral - Physical activity - Oral

Dr. Anna Tidén (The Swedish School of Sport and Health Sciences), Dr. Gunilla Brun Sundblad (The Swedish School of Sport and Health Sciences), Dr. Suzanne Lundvall (The Swedish School of Sport and Health Sciences)

The focus in this study is whether movement ability at the age of 15 matters for people’s interest in physical activities later in life. The study examines the possible long-term association between movement ability levels at the age of 15 and “taste for sport and physical activity” nine years later. In 2001, 560 (283 girls, 277 boys) pupils completed a movement assessment tool and a lifestyle questionnaire. In 2010, the participants were contacted and asked to respond once more to a questionnaire. Central to this study were questions about physical activity, leisure time habits and attitudes towards physical activity. A total of 341 responded and form the sample for this study. 160 participants’ results were evenly divided into two groups: a low level group (LLG, n=80) and a high level group (HLG, n=80). Of specific significance to the analysis of a “taste for sport and physical activity” is Bourdieu’s concepts of habitus and capital. The assumption that an acquired high level of movement ability plays a central role for being physically active is challenged.

It should be noted that over 70 % in the LLG group listed the recreational activities that they enjoyed doing in their leisure time and 44 % regarded themselves as physically active in 2010. 73% of in the also viewed themselves as having been active in PEH in upper secondary school. Having friends who were physically active was more common in the HLG group (61%) than in the LLG (39%). Even though pupils aged 15 with a low level of assessed movement ability, it did not prevent them from acquiring a “taste for sport and physical activity” later in life. Unlike previous studies, this study indicates that the relationship between movement ability and the interest in physical activities is more multifaceted than straight forward.
Does sports club participation contribute to physical activity among children and adolescents? A comparison across six European countries

Friday, 27th July - 11:00 - Oral - Physical activity - Oral

Dr. Sami Kokko (University of Jyväskylä, Faculty of Sport and Health Sciences), Dr. Susanna Geidne (Örebro university)

Background and purpose: The majority of children and adolescents in Europe fail to meet the Physical activity (PA) recommendations. However, it remains that sports club activity is the most prevalent form of organised leisure activity for youth in many countries. While participation in sports club activities is known to enhance the probability of reaching the recommended moderate-to-vigorous PA (MVPA) level, less is known about the contribution of sports club participation to vigorous PA (VPA) and few international comparisons have been carried out. Therefore, the aim is to present if participation in sports club activities contributes to meeting the MVPA and VPA recommendations among children and adolescents across six European countries, namely Belgium (Flanders), Czech Republic, Finland, France, Ireland and Sweden.

Methods: Analysis were carried out on previous national (mostly HBSC) and regional data sets using descriptive statistics and logistic regression.

Results: Results indicate that approximately two-thirds (60-69%) of children and adolescents take part in sports clubs activities. Sports club participants were more likely to meet the MVPA recommendation (OR 2.4-6.4) and the VPA recommendation (OR 2.8-5.0) than non-members in these countries.

Conclusions and implications: Sports clubs have an important position in PA promotion for younger populations. However, there are shortcomings that still need to be tackled, as there still is a significant proportion of sports club participants who do not meet the recommendations for PA. Girls participate less in sport club activities than boys and also less frequently meet the recommendations. More can be done to get different groups of children and adolescents to participate in sports clubs activities. One way to recruit and retain sports clubs participants is to work according to the concept of health promoting sports clubs (HPSC), in which the core-business of the clubs is linked to health promotion.
Social disparities in adolescents’ physical activity - direct and indirect paths to explain the social heritage of physical (in-)activity

Mr. Johannes Vollmer (Albert-Ludwigs-Universität Freiburg), Prof. Petra Giess-Stueber (Albert-Ludwigs-Universität Freiburg)

Objective
Despite the importance of physical activity for the health of adolescents, recent studies have shown substantial evidence of social disparities in adolescents’ physical activity. The state of knowledge is primarily based on re-analyses of comprehensive surveys. Therefore, the relationships and interdependences between socio-cultural factors are not yet identified in relation to physical activity in adolescence. Thus, the aim of this study was to develop and prove a theory-based model of the relationships between Bourdieu's types of capital and adolescents’ physical activity behavior as well as examining indirect pathways.

Design and method
This cross-sectional survey involved 966 adolescents (\(M_{age} = 14.80, SD = .75; N = 524\) female). The participants were recruited from 47 Grade 9 classes from 22 secondary schools (seven general secondary schools, six intermediate secondary schools, and nine higher secondary schools). Multilevel path analysis was used to investigate direct and indirect effects between the variables and to account for the hierarchical data structure.

Results
The path-model shows a good fit to the empirical data, \(\chi^2 = 29.169, df = 4, p < .001\) (scaling correction factor for MLR = 0.940), CFI = .969, RMSEA = .082, 90% CI [.056, .112], SRMR = .030 and explains 6% of the variance in physical activity. Furthermore, the path-model indicates that the relationship between parental institutionalized culture capital and leisure-time physical activity of adolescents was parallel mediated by parental physical activity behavior, parental occupational prestige and adolescents’ social capital, as well as sequentially mediated via parental occupational prestige and social capital.

Conclusions
The results suggest that the theoretical approach by the French sociologist Pierre Bourdieu can be used to explain hidden mechanism in social disparities in the context of leisure time physical activity in adolescents. In particular, the social capital is an important mediator of the effects of social disparities.
Implementing comprehensive school physical activity programs in urban under-resourced schools

Friday, 27th July - 11:00 - Oral - Sports clubs/schools - Oral

Dr. Sarah Doolittle (Adelphi University)

Background: A “whole of school” approach or comprehensive school physical activity program (CSPAP) has been recommended as the best means to provide 60 minutes of safe and engaging physical activity (PA) for all K-12 students. In many urban and under-resourced communities, this model is particularly salient since such students have few alternatives to school programs for PA and sport. Practical implementation of CSPAPs, however, is has been slow and uneven, and was the focus of this study.

Method: Field research was conducted in a large urban northeastern urban public school district to understand the perspectives of physical educators in schools, and external sport and PA coaches from agencies working in schools. A socio-ecological framework informed analysis of interviews, observations of trainings, classes and PA sessions, and examination of school and agency policy documents. Participation and other impact data, where available, were also examined.

Results: Successful CSPAP schools depended on physical educators and principals who did not feel overburdened with traditional educational goals, and assumed, or came to believe that sport and PA helped alleviate students’ behavior issues, supported a sense of community, and provided a positive atmosphere at school. Strong training for external coaches helped shift attention toward making PA inviting and successful for all types of students. Interpersonal issues related to authority in schools were addressed through collaboration on specific goals and concerns. Principals who were resourceful with “creative budgeting” and could find ways to share limited facilities and equipment addressed organizational barriers.

Conclusions: Adoption of the CSPAP model implies a re-examination of deep organizational structures in urban schooling and beliefs about role of sport and physical activity for youth in schools and communities. For effective urban professional preparation, new strategies and process models are needed. Those from the field may be more compelling than generic recommendations heretofore provided.
Child, family and environmental correlates of physical activity parenting: The Skilled Kids – study.

Dr. Arto Laukkanen (University of Jyväskylä), Mrs. Donna Niemistö (University of Jyväskylä), Prof. Taija Jautinen (University of Jyväskylä), Prof. Marja Cantell (University of Groeningen), Dr. Arja Sääkslahti (University of Jyväskylä)

The support parents provide to their children's physical activity (PA), i.e. physical activity parenting (PAP), has been shown to be a consistent correlate of children’s PA. Although a wide range of factors are shown to associate with PAP, a comprehensive perspective on the correlates of PAP is still lacking. In the current study, child, family, and environmental correlates of PAP were investigated in families (n = 840) with young children (n = 993; 5.40 ± 1.14 years) and parents (n = 993; 35.8 ± 5.29 years). Parents' self-reports of PAP (co-participation, (in)direct support, encouragement), child specific (sex, age, temperament, outdoor time, organized physical activity or sports, sedentary time, media time, PA enjoyment, motor skills compared to peers, PA and sport facility use), family specific (respondent's sex, age, education, exercise frequency, family income, family status, number of children in the family, child's birth order, and partner's PAP and exercise frequency), and environment specific (residential density, access to sport and outdoor facilities, type of house, access to electronic devices) factors were collected. Children's motor skills and anthropometrics were measured. After adjusting for family cluster effect, child, family, and environmental factors were entered into linear mixed effects model with PAP as response variable. Final model consisted of statistically significant factors, except parental education was forced into the model. Nine child- and family factors explained 15 % of parenting variance between the children and 52 % between the families. Partner's PAP (B = .68, p < .001) had the strongest association, whereas the child's temperament (B = .08, p < .001) and birth order (B = -.10, p < .001) had smaller but novel associations with the respondent's PAP. Partner's physical activity parenting practices and a range of child and family factors should be considered when promoting parental support on child's PA.
‘We don’t receive information on pupils in care”: Beginning to understand care experienced young people’s (dis)engagement with physical education

Friday, 27th July - 11:00 - Oral - Sports clubs/schools - Oral

Dr. Thomas Quarmby (Leeds Beckett University)

Young people's (dis)engagement from/with physical education has received considerable attention in recent years. Yet one ‘group’ (care experienced young people), remain ‘hidden’ within the prevailing literature. In light of the paucity of this research, this novel study aims to provide insights into this challenging and complex arena and seeks to gain some understanding of care experienced young people's (dis)engagement from/with physical education. In attempting to address the domination of adult voices in the few studies that explore the broader physical culture experiences of care experienced youth, this paper combines data from two studies conducted in 2016. As such, it gives voice to the experiences of 4, male care experienced young people aged 12-17, alongside 5 residential children's home staff, 5 foster carers and 5 physical education teachers. Data were derived from participatory research methods with the young people and semi-structured interviews with the adults who work with/for them. Drawing from Bourdieu and his notions of field, habitus and capital, the findings suggest that some care experienced young people may be at a pedagogic disadvantaged since they are not as well positioned to access opportunities for learning and participation and develop, maintain and extend those skills and dispositions that are recognised as valued ‘capital’ in physical education. In addition, as a sub-field of physical education, the changing room may act as a space that care experienced young people, due to prior abuse, may view as an obstacle and, as such, choose to engage in opting out strategies. This study calls for further research in this area, exploring care experienced young people's experiences of physical education and teacher’s understandings, coupled with how teacher's pedagogic practice might shape (dis)engagement from/with physical education.
The Role of Character in Talent Identification and Development

Friday, 27th July - 11:00 - Oral - Sports clubs/schools - Oral

Mr. Ryan Rosevear (University of Otago), Prof. Tania Cassidy (University of Otago)

Background

Diverse definitions and interpretations of ‘character’ exist (Rudd, 2005) and Hewetson (2016) concluded there is a need for evidence-based research into the role assessment of character plays within talent identification and development processes. The aims of the study were to investigate how character is understood in NZ Rugby (NZR) talent identification and development processes and policies; and how the Player Development Manager (PDM) of one provincial rugby union negotiated interpretations of character within talent identification and development practices. The research questions were: How is character understood in the NZR ecology?; How does the PDM negotiate, construct and operationalize interpretations of character within talent identification and development practices?

Methods

The study design was informed by Bronfenbrenner’s (1979) ecological systems model of development. The primary methodology was case study. The participant in the study was the PDM who worked for one provincial rugby union and NZR. Data was gained using; interviews, document analysis and observations. An iterative strategy was employed when adopting the deductive and inductive analysis.

Results

The study highlighted the relationship between values, behaviour and character. The explicit character values held by NZR reflected only a social focus. Yet the ruthless selection environment at the national level saw self-reliance being an implicitly desired character trait in players. The provincial rugby union explicitly focused on assessing players’ social and moral character. There was a reciprocal relationship between the PDM and the organisations with whom he worked. His understanding of character was influenced and shaped by the policies and practices of NZR, the provincial rugby union and his own experiences, yet the PDM also influenced the understandings of character adopted by the organisations.

Conclusion

It is challenging for coaches to develop moral character in players when they are assessed on successful performances not character building.
Physical education (PE) in countries around the world fails to meet the needs of many children, in part because dominant models have not yielded optimal conditions for PE teachers. These shortfalls are attributable in part, to outdated school structures that encourage one-size-fits-all models of education. In the United States, for example, the industrial age school promotes a standardized model of education that meets some students’ needs, fails others, and has a negligible effect on many more (Lawson, in press).

In light of these persisting structures and with the needs of particular sub-populations of young people and their teachers, Drucker’s (2008) generative question is timely. If we had not inherited PE in the way that we see it today in our host nation, would we do it the same way?

There is another stimulus for redesign. The rise of alternative models of schooling constructed to meet contemporary learners’ needs in countries around the world (Lawson & van Veen, 2016) suggests it is time for PE leaders to consider redesign alongside the continuous improvement of effective programs.

Firmly grounded in the assumption that some PE services need to be reimagined to meet the needs of today’s youth, this two-part symposium embraces appreciative inquiry (Enright et al., 2014) to envision favorable futures for PE. Contributors from seven countries (i.e., Australia, Canada, Ireland, Italy, New Zealand, Scotland, and the United States) respond to twin questions: What is going on in the name of PE’s redesign in your country? And what is needed to move redesign forward?

Authors consider these questions from three perspectives: (a) school PE, (b) PE teacher education, and (c) relations between the two. The symposium will conclude with a discussion of similarities and differences in these redesign agendas, also offering recommendations for future research, practice, and action within the PE community.
Mapping complexity perspectives on PE pedagogy: Developing a post-behaviourist paradigm

Saturday, 28th July - 11:00 - Symposium - Symposium

Dr. Tim Hopper (University of Victoria), Dr. Alan Ovens (The University of Auckland), Dr. Nicola Carse (University of Edinburgh), Dr. Jesse Rhoades (University of North Dakota)

The turn to complexity within social sciences, and the debates around the idea of a complexity theory, has generated a range of theoretical frameworks for modeling and analyzing complex systems within a variety of domains. Complexity has proven to be a fundamental feature to our world that is not easily accessed in education through reductionist methods of modern science commonly associated with behaviourist and cognitivist approaches to human learning. In this symposium we study the pedagogy of PE as forming a complex learning system with students and their teachers as agents of that system. The series of papers in this symposium apply complexity thinking to consider how the relationship between the agents of a system give rise to the collective behaviour of the system, and how that system interacts, shapes and forms relationships with its environment. In this symposium we will share individual insights on a set of core commonalities that over the past few decades have come to be recognized as a generic framework for studying complex systems. We will present the following composite of four main areas that encompasses the different major perspective on complex systems and how we have interpreted them in PE,

- Self-organization and emergence
- Nonlinear systems and chaos theory
- Connections and relationality and the struggle to be relevant, and
- Complex adaptive systems with many parts acting and reacting to each others behaviour based adaption

In these papers we discuss how theories of complexity have allowed us to engage with the idea of human learning in ways that extend beyond the limitations imposed by traditional, more predetermined, linear theories of learning associated with behaviourism. In a post-behaviourist view of human learning we focus on the environmental affordances, social connections, co-evolving inter-actions and poised instability of dynamic systems as precursors to natural, sustaining and meaningful human learning.
Curriculum enactment in physical education: a case of reinterpreting policy and pragmatic innovation

Saturday, 28th July - 11:00 - Oral - Teachers, teaching and curriculum - Oral

Dr. Andrew Horrell (University of Edinburgh)

Scotland’s curriculum framework gives teachers greater autonomy and freedom to interpret and design school curricula. This paper reports the findings of an interpretive study of nine schools within a single local authority. The aim was to explore and understand the interplay between the nested layers of the education system, with a specific focus on how national and local policy had an impact on the curriculum design decisions teachers made. The study focused on the lead teachers tasked with designing a new curriculum for physical education within a newly formed curriculum area of health and wellbeing. The main sources of data were policy texts and repeated interviews with the teachers, exploring their interpretation of curriculum guidance and the curricula they planned to enact. Data were analysed by drawing on a form of critical discourse analysis advocated by Fairclough (2005). This approach sought to explore the connections between policy and teachers’ interpretation and reinterpretation of policy. Analysis of data indicated that, although government policy and curriculum frameworks focused on health and wellbeing can and do produce organisational effects, these are subject to a complex process of reinterpretation as they map on to local conditions. Ultimately, the form a curriculum takes within an individual school is dependent on the structural conditions and professional action of teachers. ‘Pragmatic innovation’ perhaps best describes the teachers’ collective efforts at curriculum enactment. The findings of this study appear to suggest that regimes of accountability at national and local levels exert a powerful influence on schools and teachers’ responses. Discourses of accountability appear to have had the most prevalent influence in curriculum design decisions, overshadowing the discourses of health and wellbeing. This study suggests that if policymakers are seeking transformational change in physical education, regimes of accountability that shape decisions in curriculum design need more careful consideration.
Teachers perceptions about physical education: a typology

Prof. Lucia Gomes (Portuguese University of Humanities and Technologies), Prof. Madalena Ramos (University Institute of Lisbon), Prof. Joana Claro (Portuguese University of Humanities and Technologies), Prof. João Martins (University of Lisbon), Prof. Francisco Carreiro da Costa (Portuguese University of Humanities and Technologies)

**Background:** Schools and Physical Education (PE) are recognised as important contexts for promoting active lifestyles. According to the socio-ecological model of PE (O’Connor, 2012), a shared vision and sustained collaboration among school community members is required for this process to be successful. Considering that little is known about the role that other subject teachers assume regarding PE, the purpose of this study was to analyse their perceptions about the value and the aims of PE in the school curriculum.

**Methods:** 297 teachers answered a questionnaire (Carreiro da Costa & Marques, 2011) about: past experience in PE, opinion about PE status and aims, relationship between physical activity (PA) and academic performance (AP), knowledge of PA guidelines. Multiple correspondence analysis (MCA) in articulation with analysis of clusters was used to identify teachers’ profiles.

**Results:** Profile 1 was characterized by considering that: PA does not affect AP, PE must be optional, PE promotes learning about sports, and a neutral past experience in PE. Profile 2 was mainly composed by teachers who have had very good experiences in PE, associated with the idea that the promotion of good morals is the aim of PE, PE should be compulsory and examinable, and that PA benefits AP. Profile 3 refers to teachers who had bad PE experiences, considerer that PA negatively affects AP, state that PE could be compulsory but non-examinable, and judge PE as a way of catharsis. All profiles identify PE as important for promoting healthy lifestyles.

**Conclusions:** These results support the significance of the earliest good experiences in PE to generate attitudes that value PE. PE is still a peripheral subject in schools. PE teachers in addition to their work in classes should be able to function in the school with other subject teachers, advocating the importance of PE among school community members.
Preschool teachers’ attitudes and perceived competence to promote physical activity and motor learning

Saturday, 28th July - 11:00 - Oral - Teachers, teaching and curriculum - Oral

Dr. Ann-Christin Sollerhed (Kristianstad University), Dr. Jan-Eric Ekberg (Malmö University)

Introduction
Almost 90% of Swedish children in the age of 1-5 years daily attend preschool. Motor development which allow for interaction with the environment in play, physical activities (PA) and later on sports activities is most intensive during these ages. Preschool has a compensatory assignment to reduce differences from the home environment.

The aim was to investigate preschool teachers’ attitudes towards PA and motor learning and perceived competence to teach motor skills.

Methods
Data collection was conducted through surveys. The questionnaire covers in addition to background issues, questions about education, perceived capability to lead PA and motor learning, questions about attitudes to PA, personal exercise habits. An open question with requested narratives describing experiences of PA and motor learning in preschool was included.

Results
About 50% of the students considered that the knowledge of motor learning was good among staff in preschools and perceived that preschools worked deliberately with promoting PA and motor learning. In terms of perceptions of their own skills and education 87% considered that they were highly capable to promote children’s motor and physical development. At the same time only 53% felt they were well educated in motor learning through their teacher education. In terms of own PA habits 45% said they never exercised, 28% once a week and 27% twice or more per week.

Discussion
Nine of ten preschool teachers considered themselves as highly capable to work with children’s PA and motor learning. However, half of them considered that they had no education at all in motor learning and many considered their competence from teacher education as low and insufficient. Almost half of the students stated that they were not physically active themselves, which also generates questions about their own interest and habits for PA and motor learning. There is a need to include a high quality motor learning education in preschool teacher education.
In this presentation we use the key idea of 'a focus on educative purposes' to explore how Health and Physical Education can simultaneously promote ongoing learning and sustained participation in physical activity and sport. The starting point is an exploration of the sort of learning and similarly, forms of participation, that are relevant to young people's lives now and in the future. We argue that we need different visions of 'pathways' to open up, rather than close down, the potential for HPE to support lifelong and lifewide learning and participation. The presentation will systematically consider the role of curriculum, pedagogy, and assessment in achieving this outcome for students with diverse abilities and interests.
The Effects of a Physical Literacy and Physical Education Professional Development Intervention with Welsh- Medium Year Six (10 – 11 years old) Primary School Teachers on Pupils’ Physical Literacy

Saturday, 28th July - 11:00 - Oral - Pedagogy and assessment in primary physical education - Oral

Ms. Lowri Edwards (Swansea University), Dr. Anna Bryant (Cardiff Metropolitan University), Dr. Kevin Morgan (Cardiff Metropolitan University), Dr. Anwen Jones (Cardiff Metropolitan University), Dr. Stephen-Mark Cooper (Cardiff Metropolitan University)

The well-documented shortage of PE specialists in primary schools in the UK is deemed problematic as the primary school age is a critical period in the development of physical literacy. The aim of the present study was to evaluate the effects of a continual professional development (CPD) intervention to enhance primary teachers’ knowledge, understanding and application of physical literacy.

A three-month needs assessment period was conducted with three year six primary teachers from one ‘city’ and one ‘valley’ school. Based on teachers’ individual needs during the needs assessment phase, a six-month intervention was conducted with teachers. This included an interactive workshop and weekly collaborative discussions between the researcher and teachers to plan and reflect on the content and pedagogy of PE lessons. Year six pupils’ physical literacy development was quantitatively assessed every three months using validated tools of the physical literacy domains to support qualitative observations. Qualitative methods used included structured observations, reflections, semi-structured interviews and focus groups. Inductive and deductive thematic analysis was employed on qualitative data and general linear modelling statistical analyses on quantitative data.

Findings of the CPD intervention demonstrated three key themes, namely, a growth in teachers’ confidence and competence to deliver high quality PE lessons; activity-specific knowledge; and, knowledge of physical literacy. Creating a supportive, collaborative, ongoing, job-embedded and instructional-focused CPD intervention was successful in ensuring a sustained change in teachers’ PE practice. Year six pupils significantly improved their physical literacy beyond natural growth and maturation as a result of the change in teaching practice during the six-month intervention.

This project was the first to devise and implement a successful physical literacy CPD intervention with primary school teachers that pragmatically works within a complex, school-based environment. This research offered a set of processes that were applied in a nationally funded project by Sport Wales.
Primary pre-service teachers’ use of assessment strategies while on school placement

Saturday, 28th July - 11:00 - Oral - Pedagogy and assessment in primary physical education - Oral

Ms. Suzy Macken (Marino Institute of Education), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderón (University of Limerick)

Background and Purpose of the study
There is a growing interest in assessment literacy and how this can impact on teachers’ use of assessment for learning (AfL) to enhance teaching and support children’s learning (Leirhaug & MacPhail, 2015). Opportunities to optimise the development of assessment literate teachers should be sought by initial teacher educators where meaningful connections can be made between course content and school placements (Alkharusi et al, 2011). The purpose of this study was to 1) examine primary pre-service teachers’ use of assessment strategies while on school placement and, 2) identify potential opportunities for use of assessment strategies within primary pre-service teachers’ teaching of primary physical education.

Methods
One case (Dylan) is presented from a sample of five primary pre-service teachers within a qualitative study that adopted a longitudinal action research approach. Data collection involved researcher participant observation of primary pre-service teachers. Data was generated using researcher field notes, a primary pre-service teacher reflective journal and a semi-structured interview. Data was analysed using thematic coding.

Results
The findings indicate more effective application of AfL as the pre-service teacher gained greater exposure to teaching physical education. Challenges such as behaviour management and the positive impact on the use of AfL by the pre-service teacher emerged. The influence of the researcher as an observer proved effective through post-lesson debriefs that enabled the pre-service teacher to practice key elements of AfL in an authentic setting.

Conclusions and Implications
This study highlights the need for a greater emphasis on AfL and micro-teaching opportunities within the pre-service teachers’ physical education module as part of their teacher education programme. There is also a need for more direct instruction on assessment where complexities surrounding AfL can be explored not only in theory but also in the practical context of school placement.
The primary school age group is a significant period in the development of physical literacy and healthy lifestyle behaviours. Physical literacy is highly dependent on the nature of the interaction between the teacher and the pupil. However, there is a lack of training and confidence of many primary generalist teachers to teach PE in the UK. Building on a set of processes from a previously established continuing professional development (CPD) programme, the present research, funded by Sport Wales, aimed to develop a sustainable and replicable CPD process to improve primary generalist teachers’ knowledge and understanding of physical literacy and their PE pedagogy.

Adopting a collaborative participatory action research (PAR) approach, two primary generalist teachers from the same school, a secondary PE specialist and three university researchers participated in the study. Baseline data was collected from lesson observations over six weeks. Reflective logs, structured lesson observations and teacher interviews were used to collect the data over twenty three weeks. Inductive and deductive qualitative thematic analysis was used and the data was interpreted.

Findings revealed a key element to the success of the AR was the trusting relationships built by the secondary PE specialist with the primary teachers. The transfer of positive pedagogy from the classroom to the PE setting enhanced PE pedagogy. Findings also discovered the importance of collaborative PAR in ensuring rigorous, evidence-based CPD and providing the time and support required for fundamental sustainable changes in practice.

This research demonstrates the potential of government funded collaborative PAR between universities, secondary and primary schools to improve the knowledge and understanding of physical literacy and the PE pedagogy of primary generalist teachers.
The role of digital technology in the assessment of children’s movement competence during primary school Physical Education lessons

Saturday, 28th July - 11:00 - Oral - Pedagogy and assessment in primary physical education - Oral

Mr. David Morley (Sheffield Hallam University), Mr. Tom Van Rossum (Sheffield Hallam University)

There is currently limited support for teachers to assess children’s movement competence and this presents a problem in effectively supporting children’s movement development (Giblin, Collins and Button, 2014; Morley et al., 2015). To solve this problem, we explore the possibilities of using digital technology for the assessment, recording and monitoring of children’s movement competence within primary school physical education (PE). Resulting from the findings of a three-year research project undertaken to develop a movement assessment tool intended for teachers to use during PE lesson time, first-hand accounts of primary teachers and movement experts are used to detail the sequential and exploratory nature of the process of designing, developing and refining the app based assessment. Drawing upon theoretical constructs related to meaningful assessment within PE (Hay and Penney, 2009) and the generic use of digital technology, an applied and critical perspective on the realities of using digital technology to enhance our ability to assess children’s movement competence is provided. We discuss how we encountered experts’ and users’ dilemmas and how these are overcome. Finally, we provide a framework of practical principles for the use of digital technology to assess movement competence and establish a platform for future practice and research in this field.
Competence-based Coach Education in Germany - between Demands and Reality

Saturday, 28th July - 11:00 - Oral - Coach education and learning - Oral

Mr. Raphael Ptack (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg)

Background and purpose

The German ‘Olympic Sports Confederation’ (DOSB) formulates objectives for a competence-based coach education derived from three competence-categories (professional-, social- and methods-competence) in the ‘Framework Regulations for Qualification in the DOSB’. The so-called QuaTro-project compares the competence-based requirements (objectives and methods) of this framework with the educational reality of four member associations (ski, judo, alpine sports, hockey). In order to achieve the competence-based objectives, criteria of competence-based learning units, such as cognitive activation, reflection, openness as well as the role perception of the teachers, are discussed in the German sports- and education science under the term ‘Aufgabenkultur’ (task culture) (e.g. Kleinknecht, 2010). In coaching research, these criteria have not yet been explicitly discussed, however aspects of these criteria can implicitly be recognized. The aim is to check, to what extent the mentioned criteria are implemented in the coach education reality.

Methods

To analyze the coach education reality 75 learning units of 25 instructors were recorded by means of video observation and stimulated-recall interviews. The content analysis evaluation is based on the above-mentioned criteria.

Results

Initially the results show that the learning units are only partially systematically aligned with the formulated objectives. With regard to the methods, the instructors mainly describe a role perception which characterizes instructors as learning companions and assess the mentioned criteria of the task culture as very important. The video analysis shows that some criteria, e.g. cognitive activation, are largely implemented, but that other criteria, such as the systematic use of reflections, can only be observed in about 25% of the units.

Conclusions and implications

Only half of the learning units meet the demands of the competence-based frameworks. For a competence-based development, it seems necessary to bring the learning units more systematically into line with the demanded objectives and criteria of the task culture.
Sports coaching education policies from Italy, the Netherlands, Poland, Turkey, and the UK: Challenges for athletes with disabilities in becoming sports coaches

Saturday, 28th July - 11:00 - Oral - Coach education and learning - Oral

Mr. Özgür Yaşar Akyar (Hacettepe University), Prof. Gıyasettin Demirhan (Hacettepe University)

Empirical studies on coaches in disability sport are lacking (Cregan et al., 2007). Although research focuses on these coaches (Bush & Silk, 2012; Kohe & Peters, 2017; Martin & Whalen, 2014; Wilson & Khoo, 2013), much remains to study in this area, particularly the training and career development of athletes with disabilities. To address this, current research utilises the social model as a framework and United Nations Convention on the Rights of Persons with Disabilities (CRPD) as a paradigm to identify challenges for people with disabilities in becoming sports coaches. We first explore the status of coaching education regulations focusing on the training of athletes with disabilities as coaches, and, second, on their experiences in becoming coaches. National regulations for coaching education in different countries provided data for document analysis. Semi-structured interviews were conducted with 54 athletes with disabilities from Italy, the Netherlands, Poland, Turkey, and the UK. The analysis concluded that despite differences in partner countries, these athletes follow coaching programmes offered by disability and non-disability federations or universities to become sports coaches. Although athletes with disabilities benefit from sports physically, psychologically, and socially, obstacles at the interpersonal, organisational, community, and political levels hinder their participation as sports coaches. In all countries, the regulations in the field must be revised at the government level to overcome barriers and increase investment. Moreover, participants emphasised the importance of more visibility for sports for people with disabilities through awareness campaigns, educational initiatives, and media coverage to counter prejudices, enhance everyone’s participation in sports, and improve communication and information on career opportunities for athletes with disabilities in sport.
Sport coaching is an activity that is informed by and synonymous with rationalistic decision making and evidence based practice. The growth of sport sciences and the positivistic assumptions inherent in disciplines such as biomechanics and physiology have influenced this development. Indeed, it is not unusual within these disciplines to conceive of coaching as a technocratic, systematic and staged process. This perspective is most apparent in areas such as performance analysis where coaches seek to objectively review past performance and use data to inform present-day coaching practices. Even in areas, such as pedagogy and psychology, which recognise coaching as a relational and socially situated act, coaches have repeatedly been encouraged to critically reflect upon past endeavours to inform present practices. Thus, both these diverse paradigms have encouraged coaches to explicitly bring past experiences to their present-day practice.

This presentation seeks to move beyond a consideration of coaching through the past and present tense, by advocating that coaching is primarily a pedagogical act. As such, coaches (and coach researchers/educators) should not solely be concerned by what athletes have done and are doing, but also by what they may become and what they may achieve. Additionally, coaches need to consider what challenges athletes may face and what support athletes may need. To that end, this theoretically informed presentation postulates that coaching research needs to reappraise the value of future thinking within the coaching process. In so doing, it is argued that coaches’ present-day practice should not solely be informed by evidence from the past, but also by considering what may be. From this premise, it is posited that evidenced based knowledge, coupled with creativity and experimentation, may best help coaches and indeed sport scientists to support athletes. Accordingly, coach educators such as myself, may need to encourage practitioners to release their imagination.
Introduction
By creating and managing a learning climate that addresses the motivational demands of students, the PE-teacher can positively influence the engagement in and attitude towards physical activity within PE (Cox et al., 2008; Haerens et al, 2010). However, a substantial heterogeneity is often present within PE-classes, not only in the cognitive and psychomotor domain but also in student motivation. The purpose of this study was therefore to provide more insight into how the PE-context can be better tailored to the individual motivational demands of students. Based on Achievement Goal Theory (AGT) and Self-Determination Theory (SDT), we examined how different constructs of student motivation for PE combine into distinct student profiles.

Methods
Data were collected among over 2,562 secondary school students, age group 12-18 years, within 24 different secondary schools in The Netherlands. Data for establishing student profiles were collected using various previously validated instruments. Students’ perceived basic psychological need satisfaction and frustration were examined through items of the BPNSFS (Chen et al., 2014). Students’ perceived motivational learning climate was assessed through items based on MCSYS (Smith et al., 2008). Student profiles were constructed through a combination of factor analysis and cluster analysis.

Results and conclusions
Cluster analysis identified three meaningful clusters with differences in perceived psychological need support/frustration, perceived motivational climate and other variables. The results provide a basis for recommendations to better tailor PE-lessons to the motivational demands of secondary school students.

References
Learning Environments In Physical Education And The Motivation In The Early Childhood

Saturday, 28th July - 11:00 - Oral - Motivation - Oral

Dr. Andrea Hernández-Martínez (Universidad de Castilla-La Mancha), Dr. Irene González-Martí (UNIVERSIDAD CASTILLA-LA MANCHA), Ms. Pilar León González (Universidad de Castilla-La Mancha), Dr. Juan Gregorio Fernández-Bustos (Universidad)

Learning environments are understood as a studied organization of spaces and materials, which favours the emergence of spontaneous patterns or motor skills. In this way, students build their own learning, solving problems that may arise when interacting with their peers in an environment where the group sets the rules. In this case, the teacher has a secondary role, facilitating learning through the organisation of spaces and the reorientation of behaviours (Jurado, Aguilera, Calvo, Franco & García, 2006). This trend favours a free and active participation among the students (Blández, 2000), and we understand that it is a way to enhance creativity and autonomous work, avoiding reproductive work, so little useful in early childhood. In addition, with the creation of this environments, students are given the possibility of choosing tasks and activities, to control the time and space, and organizing on their own way, which increases their autonomy and therefore, their motivation (Deci & Ryan 1985, 2000; Ryan & Deci, 2000; Vallerand, 2007). The proposed objective sought to determine the level of enjoyment of students depending on whether the physical education activities were developed through a traditional approach, based on direct instruction, or whether those sessions were developed through the proposal of learning environments, previously designed by students of Castilla-La Mancha University. The sample was composed by 100 children 4 and 5 years of age from an educational centre, intentionally selected. The instruments used in the data collection were two. A record of observation to score the behaviour of the students based on the created environments, and another instrument called “smilyometer” in which the students’ enjoyment was recorded after each session. The data after the descriptive analysis showed that while the motor skills are developed with both approaches, the enjoyment of students was greater in the sessions organized by learning environments.
Understanding teachers’ motivation for using physical activity in teaching from a self-determination perspective: Results from a mixed methods study.

Saturday, 28th July - 11:00 - Oral - Motivation - Oral

Ms. Louise Stjern Knudsen (University of Southern Denmark), Mr. Thomas Skovgaard (University of Southern Denmark), Mr. Thomas Bredahl (University of Southern Denmark)

Background and purpose: In Denmark, daily physical activity (PA) has been mandatory in all Danish public schools (primary and lower secondary education) since 2014. The aim is to promote health and well-being among children and young people and to support motivation and learning in school subjects. Teachers play a key role in integrating PA into subjects. Little is known, however, about teachers’ motivation for using PA as part of teaching. The purpose of this study is to understand teachers’ motivation for using PA as part of teaching from a Self-Determination perspective.

Methods: The study uses a mixed methods approach. A survey, applying The Work Task Motivation Scale for Teachers, measured teachers’ level of motivation. Through semi-structured in-depth interviews, primarily guided by the self-determination principles competence, autonomy and relatedness, teachers’ motivation for using PA as part of teaching was investigated. Descriptive analysis was used to explore the quantitative data, and deductive thematic analysis was used for the qualitative data. The study included public school teachers and teacher assistants across subjects, year, age, experience, and gender.

Results: 211 teachers and teacher assistants participated in the survey. Nine teachers showing different levels of motivation participated in in-depth interviews. Thematic analysis of the interview data revealed that even though PA was integrated as part of a mandatory reform, teachers have a sense of autonomy regarding choice of PA activities and frequency. However, the analysis also revealed that teachers have a low sense of relatedness (e.g. connectedness with colleagues) and competence (e.g. knowledge of how to integrate PA into subjects).

Conclusion and implications: The findings from this study pinpoints key motivational drivers for teachers when integrating PA into teaching. Such findings can help frame new research questions and inform stakeholders, such as school management, decision-makers and subject advisers, on innovative ways to foster teachers’ motivation.
The motivational effects of the Singapore’s national steps challenge: How long can it last?

Dr. Lit Khoon Zason Chian (National Institute of Education, Nanyang Technological University), Mr. Fahmi Sahar (National Institute of Education, Nanyang Technological University)

Introduction
The Singapore national step challenge (NSC) is world’s first population-level initiative to promote a physically active lifestyle. In this challenge, participants are encouraged to clock 10,000 steps daily where they are converted into ‘sure-win’ rewards like grocery vouchers, as well as eligibility to participate in a grand lucky draw with the top prize of an attractive holiday destination. Given that such performance-contingent rewards have been found to undermine intrinsic motivation (Deci, Koestner, & Ryan, 1999), the present study intends to find out if participants are still physically active and what are their motivational levels four months after the NSC has ended.

Method
Past participants of the NSC (N = 74), aged 21 to 63 were sampled in the present study. Participants completed an online survey, which consisted of a physical activity (LTEQ; Godin & Shephard, 1997) and a motivation (BREQ-2; Markland & Tobin, 2004) questionnaire. A follow-up interview study was conducted to gain better understanding on the participants’ motivation.

Result
The statistical analyses provided some interesting findings. For example, identified regulation (M = 2.90, SD = .85) has the highest mean score among the different forms of extrinsic motivation. In addition, identified regulation has the highest correlation with the reported physical activity patterns (r = .62, p < .01). Qualitative data revealed that there was little change in the participants’ physical activity patterns before and after the NSC and that they participated in the NSC mainly for the rewards.

Discussion
The present study did not find any undermining effects of rewards on intrinsic motivation as hypothesised. However, it triggers further interest in exploring other relevant determinants (e.g. family and peer influence) that may influence the long-term interest of NSC participants. Findings in these determinants may provide useful strategies to the relevant authorities in designing future nation-wide physical activity programmes.
Determining the emotional profile of high-school students: a key to improve physical engagement?

Saturday, 28th July - 11:00 - Oral - Motivation - Oral

Dr. Christophe Schnitzler (University of Lille 2), Dr. François Potdevin (University of Lille 2), Dr. Mary Schirrer (University of Lorraine), Prof. Yvonne Delevoy (University of Lille 1)

According to the World Health Organization, adults should practice at least 30 min.day\(^{-1}\) and children 1h.day\(^{-1}\) of physical activity (PA) to adopt a healthy lifestyle. But surveys from this organization show that about 80% of school-aged children declare not achieving this objective. Things get even worse during adulthood, when Physical Education (PE) stops being a compulsory subject. Research related to psychology have pointed out different key elements to explain engagement in PA. Amongst the various elements of motivation for the activity, the pleasure to practice PA is an important psychological factor. Sociological studies also point out that uses of the human body is socially oriented, therefore the modality of a PA also impacts one's engagement in it. This study sought to determine to what extend the motivational profiles and the modality of practice impact the level of engagement in PE.

The motivational, preferred modality of practice and the level of engagement in different types of PA was recorded in 500 senior high-school students using a selection of questionnaires. Cluster analyses revealed the existence of 5 different motivational profiles, each of which could be linked to a modality of practice. A logistic regression suggested that motivational level for PA was the single best predictor of engagement in PA. However, at an individual's level, a greater level of engagement was observed in the preferred modality of practice only, for which more pleasure during practice was recorded.

These results indicate that although the level of activity is mainly determined by the motivational level of pupils for PA, the pleasure of a session is an important variable to consider when trying to unravel the resistance to engagement in those practice sessions proposed by PE teachers in high-school pupils.
The impact of the outsourcing of Health and Physical Education on curriculum, pedagogy, and assessment

Saturday, 28th July - 11:00 - Oral - Motivation - Oral

Ms. Leigh Sperka (The University of Queensland)

Background
Health and Physical Education (HPE) futures are currently the focus of much speculation. The outsourcing of curricular work to external agencies is one such change that is already influencing HPE. There is, however, currently a dearth of information on how HPE curriculum, pedagogy, and assessment are being shaped by the interests, agendas, and knowledge of external agencies as well as the pedagogical experiences of students in externally provided HPE lessons and their perspectives on outsourcing.

Purpose
This paper seeks to examine how partnering with external agencies impacts curriculum, pedagogy, and assessment within HPE as well as how students view the involvement of external agencies in the subject.

Methods
Data were generated about one external organisation, Tennis Australia, through Internet searches, which included collecting their advertising, product materials, and teacher resources; and a semi-structured group interview with three of their employees. A critical discourse analysis was undertaken on these data sources. A co-educational secondary school in Australia employing Tennis Australia products was then selected and semi-structured individual interviews with four school staff, focus groups with 25 Year Eight students, and observations of externally provided lessons were completed. This school data was then thematically analysed. Both analyses were informed by Bernsteinian theory.

Findings and Conclusion
While Tennis Australia worked to align their product with the HPE curricular requirements, they also brought specific interests and agendas into the subject. HPE teachers, therefore, need to be enacting their pedagogical and curriculum expertise to bridge, broker, and translate knowledge from external agencies. Further, they must also listen and respond to students’ perspectives on the outsourcing of HPE as students raised significant pedagogical and ethical issues relating to teaching and learning in their externally provided HPE classes. Together, this new knowledge can facilitate the creation of policy guidelines on the outsourcing of HPE curricular work.
Coaching and teaching the millennial: Keys to mutual survival

Saturday, 28th July - 11:00 - Oral - Teacher knowledge, learning and pedagogy - Oral

Dr. Craig Stewart (Montana State University-Bozeman)

Program description: The millennial student/athlete presents the coach and teacher with significant challenges. However, delving on the shortcomings and our frustrations is futile. By presenting their characteristics beyond the stereotypes and applying some modified principles of teaching/coaching, hopefully we all will strive and survive.

Extended description: The time for emphasizing the characteristics of the millennial is over. Without specific recommendations based on those descriptions and sound teaching/coaching principals, all the parties will continue to struggle. By observing and recording this culture’s (student athletes) values and beliefs, this presentation takes selective input from over 1000 students in an introduction to coaching class over a 15-year period. Over 95% of those individuals had been or still were athletes who had competed at the varsity high school level or above. A similar percentage had participated for over 10 years and in over 2 sports in their careers. Using their recollections of the characteristics of their best and worst coaches along with their rankings of the ten general characteristics of a coach, a global picture of today's athlete was developed.

Then, using the work of Ericsson, Krampe & Tesch-Romer (1993) and the work of Weinberg (2013) the modified application of ‘deliberate practice’ and the development of mental toughness was used to recommend approaches that could consider the characteristics of today’s student athlete with coaches/teachers commitment to quality performance and lifetime involvement in learning and physical activity through sport.

The results of participation will be specific recommendations for teachers and coaches as to how to consider the characteristics of today's students and athletes in the presentation of material and activities/practices while improving and maintaining performance.
Teachers’ content knowledge has been recognized as essential for effective teaching (Ball et al., 2008; Shulman, 1987; Siedentop, 2002). Content knowledge is a necessary prerequisite to making good instructional decisions (Ball et al., 2008; Shulman, 1987; Ward et al., 2015). Content knowledge has been defined as comprised of common content knowledge (CCK) and specialized content knowledge (SCK; Ball et al., 2008; Ward, 2009). The focus of this study is on CCK that consists knowledge of rules, techniques, and tactics and can be used to define the scope of what teachers teach in their lessons. Developing reliable and valid measures of teacher knowledge such as CCK strengthens the understanding of what teachers know, hence, the field's ability to help teachers in their practice. However, there are few validated tests of CCK for teachers. The purpose of this study was to provide content and concurrent validity evidence for a 19-question test of the CCK for gymnastics required in Turkish elementary and secondary schools. Participants were 240 preservice teachers who had previously taken a class in content knowledge for gymnastics in six state universities. Rasch modeling was used to evaluate the validity and reliability of the CCK gymnastics test. The infit statistics ranging from .87 to 1.23 and the outfit statistics (.17 to 1.43) indicated that all 19 item scores were within the acceptable range of 0.5-1.5. High internal consistency for item difficulty (M= .29; SD = .67) and high internal consistency for person-ability (M= 9.4, SD= 3.3) were obtained. Overall analysis showed good evidence to support the validity and reliability of the CCK gymnastics test. The CCK test can be used in initial teacher education and continuing professional development to determine the CCK knowledge of preservice and inservice teachers and in turn a measure of what they learn from professional development efforts.
Background and Purpose: ‘Classroom Ecology’ (Doyle, 2006) research in Physical Education requires the integration of the wider contexts in which a Physical Education subject department presents a privileged professional development context. Consequently, this will facilitate the implementation of pedagogies that enhance the integration of different students' social agendas as a strategy to promote student engagement and success. This study aimed to explore the ‘Bioecology of Human Development Model’ (Bronfenbrenner, 2005) in the classroom ecology research, for its under-utilized yet significant potential to facilitate the conceptual and empirical framing of classroom management within the Physical Education department.

Methods: During one school year, two teachers with differing pedagogical dispositions, working in the same Physical Education department, were observed during four of their Physical Education lessons (Siedentop, 1994). Data on the teachers' pedagogical dispositions towards the students' social agenda was gathered through a questionnaire. Students' social agenda dispositions were collected through a questionnaire and analysed for emerging social agenda profiles. Data from both collection points were triangulated with good reliability scores.

Results: Four pedagogical profiles emerged, ranging from integrative to hybrid negotiation. In each teacher's class, three student profiles emerged, ranging from a social-academic hybridism to academic social agendas. Across the two classroom ecologies, situated on department's work, patterns emerged for pedagogical and curricular principles, and task systems' management. Due to the teachers' different pedagogical dispositions, specific patterns of interaction within their classroom ecologies also emerged, favouring the integrative as more pedagogically coherent and subsequently more congruent across the different student profiles.

Conclusions: This study demonstrates the potential of Bronfenbrenner's model to open-up the “black-box” (classroom), providing a robustly contextualized framing to classroom ecology research. We conclude that, without the broader framing of the Physical Education department, the students' pedagogical and curricular experience would be more dependent on the teachers' individual capacity.
Enhancing student achievement through high quality education is a common global concern across the nations. The research literature has constantly supported that teachers’ continuing professional development (CPD) is a critical component of teacher changes and enhancing student learning outcomes (Armour et al., 2017; Guskey, 2002; Yoon et al., 2007). Despite significant financial investment by the Korean government, there is little awareness of effective CPD in this context, and how this is framed by Korean values.

The purpose of this study was to examine characteristics of Korean secondary teachers’ participation in PE-CPD programs in terms of design, content, practitioner engagement and perceived effectiveness. Data were collected from online-based open-ended questionnaires (n=251) and in-depth interviews with secondary PE teachers (n=20). Quantitative data were analyzed SPSS 20.0 and qualitative data were analyzed thorough NVivo11 for content analysis.

Findings revealed that the local education authority and in-service teacher training center played a major role in providing PE-CPD programs, while the role of university/teacher education programs was limited to providing upper level teacher certificates. Secondly, PE teachers’ reasons for participating PE-CPD were centered on improving knowledge and skills, sharing issues and finding solution for their problems, and extending teacher network. Interestingly, beginning teachers got more pressure from administrators to participate in PE-CPD when compared with more experienced teachers. Thirdly, dominance of sport skills-centered content of PE-CPD was disconnected from changing trend of national curriculum. Finally, teachers’ perceptions of effectiveness of PE-CPD were determined by changes in teachers (i.e., knowledge, skills, and attitude), program characteristics (i.e., content, structure), and support from staff/facilitators.

The findings suggest that the PE-CPD in Korea should be re-designed and enhanced by reflecting characteristics of effective CPD (e.g., school-based, sustained, contextualized, autonomous), and expanding horizon of PE teacher professionalism beyond traditional notion of sport skills development.
To be or not to be? That is the question: A narrative inquiry into the experiences of a young Physical Education teacher-researcher.

Mr. Vincent Coleman (University of Edinburgh)

This study is a Narrative Inquiry into my experiences as a teacher-researcher in the first two years of teaching. The main aim of the study was to explore the ways in which I identified myself as a teacher-researcher within the political landscapes of schools. Using Narrative Inquiry and Dewey's (1916, 1938) theories of experience, I created a thread of stories which were interpreted and analysed from within a 3-dimensional inquiry space (Clandinin and Connelly 2000). Stories arose from entries in a personal journal, an audio-diary, lengthy formal conversations with tutors, fellow teachers, friends, and family; and conversations within the 3-dimensional inquiry space with participants. I discovered and explored feelings of otherness, isolation, and identity crisis. The political landscapes of schools proved to have a lasting effect on the ways in which I negotiated my identity. For example, tensions were evident in my interactions in PE departments, school meetings, job interviews, and in research seminars. With PE colleagues, tension was implicit and often expressed in humour. After job interviews, senior teachers implied my research as a lack of commitment to classroom teaching numerous times. Findings from this study are subject to my perspective and should be treated accordingly. Notwithstanding, PE teachers who seek to become teacher-researchers require the tools to navigate the political landscapes of schools during their initial years of teaching. Questions about the image and expectations of PE teachers in schools needs closer attention if schools cannot, or do not, support teachers to develop their professional identity in multiple ways. As such, more research conducted from within these landscapes is required to generate dialogue about how young teachers can be supported to develop their identities in ways that meets the needs of Physical Education in an ever-changing world.
A Narrative Inquiry into pre-service PHETE student’s advocacy for social justice

Saturday, 28th July - 11:00 - Oral - Innovative research approaches - Oral

Dr. Lee Schaefer (McGill University), Dr. Douglas Gleddie (University of Alberta), Mrs. Hayley Morrison (University of Alberta), Mrs. Lauren Hennig (McGill University)

Advocating for more culturally responsive and socially just forms of health and physical education (HPE) that brings attention to racism, colonialism, sexism, and other social issues has been largely overlooked by Canadian physical and health education teacher education (PHETE) researchers (Halas, 2014). Research shows pre-service teachers' beliefs and values shift very little by engaging in teacher education programs (Hickey, 2000). For this reason, we chose to explore how we might engage PHETE students in thinking differently about social justice issues that arise through PHE. The study featured an autobiographical intervention with 120 pre-service PHETE teachers at two different universities. Phase one included the above intervention with 4 PHETE classes couch between a pre and post survey on social justice (Schaefer & Gleddie, in process). Phase two of the study, presented in this session, was a narrative inquiry alongside 7 of these pre-service teachers. The objectives were to better understand how the students experienced the intervention as well as their experiences of learning about social justice in teacher education. Phase two data was analyzed using the three-dimensional narrative inquiry space (temporality, sociality and place) while looking for resonant threads across their experiences. Although still early in the analysis phase the threads that have become apparent through the analysis are:1) Questions around PHETE teacher knowledge; 2) Invisible marginality; 3) Weight of the world; 4) Enduring gender roles/ stereotypes; 5) The power of relationships. Phase two showed that each of the students found the autobiographical narrative inquiry to meaningful for a variety of reasons. It has also shown the complex nature of how pre-service teachers conceptualize social justice, how they experience learning about advocating for social justice, and how much pressure they feel to advocate for a physical and health education that attends to social justice issues.
Picture this! Using drawings to explore pupils’ conceptions of ‘health’

Saturday, 28th July - 11:00 - Oral - Innovative research approaches - Oral

Mr. Oliver Hooper (Loughborough University), Dr. Jo Harris (Loughborough University), Dr. Lorraine Cale (Loughborough University)

Introduction
Concerns have been expressed over what children know, understand and conceive about ‘health’ and calls have been made for further research in this area (Harris et al., 2016). However, exploring pupils’ conceptions can be a challenging endeavour, and there is a need for innovative techniques/tools to be employed when researching the concept of health with children in order to develop understanding and inform pedagogical practice.

Methods
Data were gathered from 120 pupils (aged 11-12) across two case study schools in the East Midlands region of England between October and December 2015. Pupils participated in a semi-structured focus group, involving several interactive tasks, including producing drawings which depicted ‘health’. The interactive tasks sought to generate in-depth discussion and elicit pupils’ conceptions of ‘health’, enabling them to ‘speak’ in alternative ways (i.e. through drawings). Data were subsequently organised within NVivo10 and analysed using discourse analysis.

Results
The data (derived from pupil drawings and related discussions) revealed that many pupils had dichotomous views of health, readily defining ‘healthy’ and ‘unhealthy’ practices. Pupils also had a tendency to conceptualise health in negative terms, with much discussion being about what not to do to be healthy, rather than what to do. Furthermore, pupils demonstrated a preoccupation with the corporeal aspects of health, with almost all describing health predominantly in the physical sense. Allied to this, they often considered diet and exercise to be the sole moderators of health.

Conclusions
Drawings proved to be a useful research tool that pupils responded well to and which facilitated productive discussions, enabling pupils to articulate their conceptions of ‘health’. The findings generated from these drawings (and related discussions) suggest that pupils have rather limited and limiting conceptions of health and the way in which these were articulated (in negative terms) presents challenges for pedagogical practice in this area.
CREATEing Research with Children and Young People: Values, Voice and Ethics

Saturday, 28th July - 11:00 - Innovative research approaches - Oral

**Dr. Fiona Chambers (University College Cork), Dr. Rachel Sandford (Loughborough University), Dr. Lee Schaefer (McGill University), Dr. Joanne Moles (University of Limerick), Mr. Oliver Hooper (Loughborough University)**

Introduction
There should be a distinction between research on youth and research with youth. While research on youth positions the researcher as expert, research for youth takes into account broader academic debates around the need for researchers to reflect on ‘ethically important moments’ (McEvoy et al., 2016) and show a greater ‘ethic of care’ (Heath et al., 2007). Funded by the European Educational Research Association (EERA), this project comprised three pan-European design thinking symposia where early career researchers, experienced academics and youth co-developed a set of “Principles of Research with, for and by Youth;” that offer exciting methodological implications.

Methods
Using the BERA Ethical Guidelines (2014) as a framework, each of the three symposia employed a four stage design thinking approach [Clarify, Ideate, Develop and Implement] (Goligorsky, 2012), focusing on distinct youth populations (1) Research for Youth: General principles (Ireland) (2) Research for Looked After Children (UK) (3) Research for Indigenous Youth (Canada). Data from 90 participants were analysed using a thematic, inductive form of grounded theory (Charmaz, 2006) using both Nvivo and Voyant.

Results
While acknowledging challenges in the process e.g. the ‘fragility’ of youth voice (Cook-Sather, 2002), findings revealed six broad, interconnecting guiding principles for conducting meaningful research with, for and by young people: The CREATE Principles [Connections; Reflexivity; Empathy; Adherence; Transparency; Empowerment].

Conclusions and implications
The methodological implications of using design thinking as a form of both study design and method offers new ways forward in research with youth. CREATE (i) enhances the ethic of care and positions youth as knowledge holders (ii) affords researchers flexibility to use the principles in varied research contexts and with diverse youth populations, and (iii) offers imagined possibilities (Greene, 1995) for research with youth, as opposed to on them.
Exploring Social Justice Issues in Physical Education Teacher Education

Saturday, 28th July - 14:45 - Symposium - Symposium

Dr. Jennifer Walton-Fisette (Kent State University), Dr. Sue Sutherland (Ohio State University), Dr. Joanne Hill (University of Bedfordshire), Dr. Eimear Enright (The University of Queensland), Dr. Louise McCuaig (The University of Queensland)

Social justice has been steadily gaining traction in physical education and physical education teacher education (PETE) for more than 40 years. During that time, scholars have argued for the importance of explicating the hidden curriculum (Bain, 1975), educating pre-service teachers about equality (e.g., Evans, 1990), sociocultural perspectives and issues (e.g., Tischler & Sanders 2014) critical pedagogy (e.g., Fernandez-Balboa, 1997) and most recently, taking action through social justice initiatives (Tinning, 2016). A growing body of PETE literature has highlighted issues such as racism (Fitzpatrick 2013), body image (Kirk 2006), gender (Dewar 1991), and motor elitism (Evans 2004); however, limited research has focused specifically on how social justice education is enacted in PETE programs throughout our global society, particularly within the current neoliberal culture.

The aim of this symposium is to explore how social justice issues are addressed and implemented in PETE programs internationally. Concerns for teachers oriented to issues of social justice continue to be at the forefront of educational debate. Globalization presents new challenges to education and to issues of social justice. Therefore, theorists, critical pedagogues, and teacher educators have called attention to the intensification of diversity that is now occurring inside and outside of school, while critically engaging with the detrimental effects of globalization on equity, diversity, and social justice. In the current global context, several scholars have observed 21st century education as increasingly being reduced to a commodity—a corporate curriculum—that grants privileges to a few students while marginalizing many others because of their social class, race, disability, gender and sexuality. Thus, this symposium seeks to underscore the need to examine how contemporary teacher educators approach teaching about sociocultural issues and for social justice within their PETE programs.
Monitoring the Quality of Physical Education: EuPEO, a ongoing Project from the European Physical Education Association

Saturday, 28th July - 14:45 - Symposium - Symposium

Prof. Marcos Onofre (University of Lisbon), Dr. João Costa (University College), Prof. Roland Naul (University of Münster), Dr. Claude Scheuer (European Physical Education Association), Prof. Mary O’Sullivan (University of Limerick)

The EUPEA Symposium in the 2018 AIESEP World Congress, Monitoring the Quality of Physical Education: EuPEO, an ongoing Project from the European Physical Education Association aims to discuss the value of improving a systematic process of collecting and analysing data on European Physical Education (PE), School Sport (SS) and other forms of promoting Physical Activity in school (OPAS).

EUPEA developed a project submitted to Erasmus Plus Sport called Eupeo – European Physical Education Observatory. This ongoing proposal will be based on many former initiatives developed both at international and national levels. EUPEA wants to discuss this with other experts, namely with AIESEP participants. The symposium will start with a review of the antecedents of EuPEO, namely by reporting the EUPEA former initiatives to know about what was going on in PE, SS and OPAS, presented by Claude Scheuer. After this, the EuPEO project will be presented by João Costa referring its aims and designed process. Finally, Roland Naul will present a rational on the existing possibilities for monitoring indicators and methodologies.

The three presentations will be discussed by two AIESEP board members, Mary O’Sullivan and Erin Gerlach.
Lesson Study as Professional Learning in Primary Physical Education

Saturday, 28th July - 14:45 - Symposium - Symposium

Dr. Seiichiro Kihara (Hiroshima University), Dr. Nan Lin (Zhejiang University), Dr. Gro Næsheim-Bjørkvik (University of Stavanger), Dr. Mike Jess (The University of Edinburgh), Dr. Paul McMillan (The University of Edinburgh)

Teachers’ professional learning within physical education has increasingly become a topic of interest across the academic and professional literature (e.g. Petrie & lisahunter, 2011). However, a concern has consistently been voiced about the limitations of the short, off-site CPD courses that have long been dominant as the main source of teachers’ professional development. With calls for more on-site and long term professional learning opportunities for teachers becoming more common, this symposium focusses on the potential that lesson study may hold as a key feature of teachers’ physical education professional learning in the future. Initially developed in Japan in the late nineteenth century, lesson study has recently become a more prominent feature of teacher’s professional learning across the world. This symposium consequently explores recent examples of lesson study in primary and secondary physical education in four different settings. Following a short introduction to lesson study, the first two presentations will focus on developments within Japan and China, where lesson study has long been a feature of the physical education landscape. As such, both papers will consider how lesson study has been used as a catalyst to support teachers’ reflective practices within primary physical education. The third presentation investigates the impact of initial Lesson Study experiences on student teachers in Norway, while the final paper will consider how lesson study has recently been introduced as part of initial teacher education and in-service teacher education within Scotland. The symposium will conclude by considering how these recent developments in lesson study may act as a foundation for future developments across a wider range of contexts.

Amongst the many models and theories that are being positioned to influence the future direction of our subject area, social ecology and complexity theory are considered important. Yet because physical education scholars invest substantial time and effort developing a knowledge base, synthesizing thinking and enthusiastically presenting personalized frameworks, there is a real risk these ideas get lost in specialist terminology and navel gazing. Accordingly, the physical education landscape has become messy for academics and practitioners as they grapple with the multiple ideas that are presented as different, with unique language, yet appear to possess many similarities. This presentation describes what happens when we make deliberate and systematic attempts to seek synergies that build upon a shared set of common ideas albeit embedded in different contexts. To this end, we have adopted a comparative analysis approach to explore two different but similar systems-based frameworks, complexity and social ecology, that have been applied in physical education on two different sides of the globe (Scotland and Australia). We draw upon two related data sets, our own publications and a series of five online conversations. A detailed analysis of these data revealed two emergent themes for discussion: 1) our shared understandings and contradictions across systems frameworks; and 2) our views on the application of the related overarching frameworks. Our presentation will explore the method of our collaboration, the key themes that emerged from this and implications for future attempts to create physical education as a more connected and integrated subject area.
Religion as an other(ed) identity within physical education: A scoping review of relevant literature and suggestions for practice and inquiry

Dr. Daniel Robinson (St. Francis Xavier University)

In recent years, physical education pedagogues and researchers have studied, theorized about, and provided practical suggestions related to diverse and intersecting identities (e.g. class, [dis]ability, gender, racialized identity, sexual orientation, etc.). Such efforts have had a profound impact upon those who have suffered the consequences of being ‘othered’ within physical education, and more globally within schools, communities, and societies. This impact notwithstanding, few physical education scholars have focused closely upon the role that religion, particularly as an other(ed) identity, might play within physical education. Given this current context, I have undertaken the task of writing this paper with two goals in mind: 1) to offer a scoping review of peer-reviewed literature about religion as it relates to physical education, and 2) considering that scoping review, to offer suggestions for future practice and inquiry.

Key findings are related to the following themes: 1) Christianity’s foundational influence and ongoing privilege; 2) today’s focus: Muslim students within physical education; 3) religion as it intersects with gender and culture, in particular; and 4) research-based and conceptual positions on accommodation(s). Suggestions for future practice are related to PETE and in-service training programs, physical education accommodations, and welcoming religiosity and spirituality. Suggestions for future inquiry are related to male (and Muslim) students as well as critical and culturally relevant programming.
School versus club sport: Institutional consequences of school-centred elite sports development

This paper investigates school sports as a basic unit for the South Korean elite sport development system. Informed by new institutionalism from the field of political science that highlights institutions' structuring power, resultant costs and path dependency, the investigation focuses on two major institutional devices that regulate South Korean elite sports: ‘the Sports-Specialty Student System’ (SSSS) and ‘the National (Junior) Sports Festival’ (N(J)SF). Utilising a critical realist, qualitative approach that includes document analysis and interviews with policy actors within and around the educational system, this paper analyses the institutional consequences of using the school system as a legitimate path for elite sports development. The results reveal that: (1) the SSSS restricts access to elite-level competitions to school team athletes enabling them to enter upper-class schools (including university) regardless of academic performance, thus shifting responsibility for the task of developing elite sports to the educational system; and (2) the inter-city competition structure of the N(J)SF motivates the educational system to pursue sporting success by offering incentives (e.g., promotion points, special bonuses) to school supervisors, PE teachers and coaches. Consequently, the school-centred elite sports regime can easily secure a sufficient number of student-athletes through schools, and maintain a certain level of athletic performance, by winning complete commitment of student-athletes to train for sport with no concern about academic performance. However, the costs are arguably sports organisations' limited capacity to independently recruit and foster athletes and the deprivation of balanced youth development for student-athletes. By examining the institutional conditions for South Korean school sports, this paper suggests that the school system has been established as the cradle of elite sports not only because of the costs that would otherwise have been paid by sports organisations in the under-developed Korean civil society, but because of the costs of securing unwavering athletic commitment of student-athletes.
Teacher Educator’s and Pre-Service Teachers’ Experiences of Collectively Experiencing Action Research within a Physical Education Teacher Education Programme

Saturday, 28th July - 14:45 - Oral - Issues and debates in physical education - Oral

Dr. Deniz Hunuk (Pamukkale University), Prof. Ann MacPhail (University of Limerick)

Introduction
Although much of the literature on teacher education explores in-service teachers’ and teacher educators’ action research (AR), minimal teacher education research examines pre-service teachers’ (PSTs’) engagement in AR as well as the relationship between the PST and teacher educator in supporting a positive disposition to AR.

Method
Participants were six physical education PSTs and a physical education teacher-educator who supervised their teaching practice, introduced them to AR and facilitated them through the AR process. Mertler’s (2009) AR cycles (planning, acting, developing and reflecting) guided the phases of this study. Data included (i) audio-taped weekly discussions between the teacher educator and PSTs, (ii) the teacher educator’s field notes, (iii) audio-recorded weekly discussions between the teacher educator and critical friend, and (iv) semi-structured post interviews with PSTs and the teacher educator. Data were analysed qualitatively using the constant comparison approach (Glaser and Strauss, 2012).

Results
Findings indicated that the centrality of a critical friend, the teacher educator sharing her experiences about AR with PSTs, and creating a collaborative and supportive learning environment across AR cycles are three crucial infrastructures of designing an effective AR experience. Strategies (such as peer observation, video-taping of practices, survey use, task cards, open presentation) that were utilized effectively by the teacher educator to facilitate PSTs experiences of AR are shared.

Conclusion
PSTs’ engagement with AR appears to be heightened when the teacher educator parallels and shares their corresponding experience of AR with PSTs. It is therefore important that, if teacher educators are genuinely concerned in introducing PSTs to a meaningful AR experience, they strive to model and share best AR practice.
Teaching Primary Physical Education...beginning the journey

Saturday, 28th July - 14:45 - Oral - Professional learning in physical education - Oral

Dr. Maura Coulter (Institute of Education, Dublin City University, Ireland), Ms. Susan Marron (Institute of Education, Dublin City University, Ireland), Dr. Frances Murphy (Institute of Education, Dublin City University, Ireland)

Helgevold et al., (2015) argue that internships for pre-service teachers (PSTs) in schools are assumed to have an impact on PSTs' learning. Mentoring can sometimes be an element of internships. Orland-Barak (2014) defines mentoring as ‘the mediation of professional learning’, where mentors constantly engage in mediation between persons and content in value-laden contexts of practice.

This study sought to examine the impact of mentoring by three teacher educators on PSTs' (N=25) learning. The PSTs were preparing to become primary generalist teachers with a specialism in primary physical education. This was a descriptive study analysing the PSTs' lesson plans; their reflections prior to the Physical Education School Experience (PESE); their weekly reflections written after they had co-taught each of three lessons and critically observed the PE lessons taught by their peers; and their post-PESE reflections. The teacher educators followed the same practice reflecting prior to the PESE, systematically during the PESE and on completion of the PESE.

The data were entered into NVivo (QSR NVivo V11) and analysed using an interpretive-descriptive approach. All transcripts were categorized and themes using systematic content analysis (Charmaz, 2006) were generated.

Initial findings suggest that the PSTs valued co-teaching with their peers and mentoring from all sources. They identified particularly important aspects of their learning as (i) their growing understanding of planning for particular contexts and (ii) their application of a range of classroom organisation strategies. With regard to mentoring, this study provides evidence that contexts for focused teaching of physical education that supplement the opportunities provided within their standard primary school placements were considered very important not only by the teacher educators but by the PSTs themselves. The study suggests that placement opportunities where the focus is on physical education are crucial elements of the professional journey of PSTs towards quality teaching of physical education.
Are you ready? Physical readiness is there a mismatch in understanding and knowledge?

Saturday, 28th July - 14:45 - Oral - Professional learning in physical education - Oral

Dr. Kristy Howells (Canterbury Christ Church University)

The Family and Childcare Trust (2017) have highlighted concerns from policymakers and head teachers about the perceived lack of ‘school readiness’ among large numbers of young children when they enter the first year of primary (elementary) school. The majority of previous research has focused on young children's cognitive, social-emotional and behavioural readiness for school (Whitebread and Bingham, 2011). In contrast, there has been a paucity of research, which asks what it means to be physically ready for the demands of formal schooling. This paper seeks to address this gap in knowledge and understanding. It will explore primary teachers’ and practitioners’ beliefs about ‘physical readiness’ at the beginning of school life, which in England can be as early as just after the child’s 4th birthday.

Ofsted (2014) identified that in over one in eight young children settings from disadvantaged areas, children were arriving with low levels of physical development on entry. Some children were up to 12 months behind in their development and could not manage activities such as; riding a trike / scooter / throwing / catching / kicking. School readiness in the physical development sense has been defined by NAHT and Family and Childcare Trust (2017) identify physical development readiness as issues with coordination, control and movement. The paper will questions if there is a mismatch within practice between early years' practitioners expectations of what children can physically do and how they move, as they exit their care and then what primary education teachers expect the children in terms of physical development and 'readiness' to enter their care and school setting. It is believed that there is a potential mismatch of understanding and knowledge. The paper will offer novel perspectives of practice and support potential developments that are needed to support both our workforce and our children's physical development.
Policy on classroom teachers’ continuing professional development for teaching physical education in Taiwanese primary school

Saturday, 28th July - 14:45 - Oral - Professional learning in physical education - Oral

Dr. CHINGWEI CHANG (National Taiwan Normal University Department of Physical Education), Dr. DENG-YAU SHY (National Taiwan Normal University), Prof. Ching Ping Lin (National Taiwan Normal University/Department of Physical Education), Mrs. CAI-LING WU (National Taiwan Normal University)

To deliver quality physical education in primary school by classroom teachers has been considered as challenges in many countries. In Taiwan, this challenging situation is no exception. Over the last three years, there were in average 70% (n=8,000 classroom teachers) physical education classes that had been taught by classroom teachers. Therefore, the policy on classroom teachers’ continuing professional development was made by the government’s white paper in order to reduce the percentage of untrained classroom teachers. In this case, the Physical Education Instructional Modules for Primary Schools (PEIM-PS) project was launched in 2015. PEIM contained a package of learning situations (movement education, ball games etc.) for classroom teachers. The classroom teachers’ continuing professional development has been conducted by an accredited certification framework. 100 seed teachers (specialist teacher in PE), selected from 22 counties of Taiwan, were trained with the PEIM-PS in order to train classroom teachers in 22 counties. Seed teachers could get an accredited certification as module-trainer through 3 steps: (1) three-days active learning workshop (21 hours); (2) 6 to 12 lessons of module teaching practice; (3) a half day group discussion and reflection on module teaching practices. Classroom teachers could get an accredited certification as module-teacher through 3 steps: (1) one-day active learning workshop (6 hours); (2) 1 lesson of module teaching practice (shared on the member’s website); and (3) on-line survey regarding professional development. The more classroom teachers participated the project, the more he or she could collect the module certifications. At the end of the first year of the project, one had organized 40 one-day workshops that represented 1600 classroom teachers or PE teachers. Moreover, 500 teachers finalized the 3 steps and received a module certification. The on-line survey results will be showed and the further challenges will be discussed.
Edinburgh 2018 AIESEP World Congress: Creating Thriving and Sustainable Futures

Developing a pedagogical model for ‘slow adventure and friluftsliv’ in physical education

Saturday, 28th July - 14:45 - Oral - Professional learning in physical education - Oral

Mr. Kristian Abelsen (Norwegian School of Sport Sciences), Dr. Petter Leirhaug (Western Norway University of Applied Sciences)

In Scandinavian countries, adventure and outdoor education has its companion in the term friluftsliv, a tradition of outdoor life that emphasizes environmental awareness and joy of nature. In Norway, friluftsliv has been an explicit part of the National Curriculum for physical education (PE) since 1974, and is a learning area throughout 13 years of schooling.

Recognizing models-based approaches in PE as a way for teachers and students to concentrate on a manageable number of learning goals, the aim of this paper is to suggest a new pedagogical model for PE called ‘slow adventure and friluftsliv.’ We argue that the value and experience of nature is not well represented in existing pedagogical models facing the outdoors. To reveal the features essential in describing a model, we have conducted a systematic review of empirical studies on friluftsliv in Norwegian schools 1974-2016. We find that students enjoy friluftsliv and especially appreciate the social benefits. However, the review also show teachers struggling with constrains, and indicates a crucial need for the empowerment of teachers and the development of innovative approaches.

To meet this challenge, this paper explains the theoretical background for the model and outlines five essential ‘non-negotiable’ features of the ‘slow adventure and friluftsliv’ model: (1) environment with nature qualities, (2) focusing nature experience rather than skill development, (3) emphasizing cooperation and methods that stimulate student participation, (4) providing time for individual experience and dwelling, and (5) emphasizing assessment that focuses on being in nature, cooperation and self-reflection on the learning process.

We conclude with some reflections on the central learning outcomes, pedagogical implications for PE teachers, and manageable teaching strategies related to each of the five essential features. We also share some thoughts on how the model ‘slow adventure and friluftsliv’ relate to other instructional and pedagogical models.
The inclusion of pupils with special educational needs and disabilities (SEND) in mainstream/regular school physical education (PE) has been explored from the perspective of teachers, pupils and key support staff (Fitzgerald, 2012; Maher, 2016; Vickerman and Blundell, 2012). Much of the research available suggests that many PE teachers lack the knowledge, skills and experience to include pupils with SEND in mainstream contexts (Vickerman and Coates, 2009). What is missing, however, is research that explores the teacher education experiences of special school PE teachers. This absence is indicative of the apathy existing in England and internationally when it comes to researching special school PE. In part, this has been fuelled by an ideology that positions mainstream education and inclusion as the preferred means of provision for pupils with SEND.

In order to begin to shed light on special school PE, this presentation will report on a small-scale research project that aimed to explore the teacher education experiences of special school PE teachers. For this, qualitative interview data were generated from deliverers of PE. The findings explore: (1) initial teacher education (ITE) experiences and their relevance to PE and SEND; and (2) the type and usefulness of training offered by schools to PE teachers as part of their continued professional development (CPD). The presentation will conclude by exploring what more can be done during ITE and as part of CPD to ensure that special school teachers are adequately trained to include pupils with SEND in PE.
This presentation focuses on secondary professional socialization of doctoral students, who are also working professionals, into scholarly professionals (Gill, Brown, & Reifsteck, 2014). Students who are working professionals and not fully immersed in typical PhD programs face unique challenges that are interwoven with the complexity of their personal and professional lives (Watts, 2008). To date, little research has been done on secondary professional socialization in kinesiology. A recent study suggests that professional organizations provide valuable socialization experiences for graduate students (Richards, Eberline, & Templin, 2016). More research is needed to consider how graduate students transition into their doctoral studies. This presentation considers secondary professional socialization during the first year of an online doctorate of education program. Participants (N = 80) represent a variety of kinesiology subdisciplines including K-12 physical education teachers, PETE faculty, and athletic training professionals, among others. Data sources include open-ended surveys and internal program evaluations. Findings suggest that several program structures enhanced the student experience and promoted high levels of retention in the program. The findings are categorized in three themes that benefited students transition into their doctoral studies: 1) an on-site campus orientation program, 2) developing an online community of learning, and 3) integrating students into the culture of academia. This presentation will offer practical strategies that have been successful in helping students in an online professional doctoral program deal with challenges and become engaged scholars who can apply scholarly approaches to advance professional practice. Moreover, this study considers the secondary professional socializations of graduate students in a new model of doctoral education. Findings may provide future research directions for individuals interested in engaging working professionals in graduate education.
Long-term development of game-play decision-making, efficiency and efficacy: combining Sport Education-Tactical Games across three consecutive invasion games units

Saturday, 28th July - 14:45 - Oral - Issues and challenges in physical education - Oral

Dr. Cláudio Farias (Faculty of Sport, University of Porto), Prof. Isabel Mesquita (Faculty of Sport, University of Porto), Prof. Peter Hastie (Auburn University)

Recent Sport Education-Tactical Games coalitions promoted student engagement with social-interactive dimensions of sport, high levels of appropriate decision-making (DM), and skill-execution (SE). However, most research on models-based physical education has explored student participation in single, isolated units. This study examines the long-term development of students’ game-play across three consecutive Sport Education-Tactical Games seasons. It further examines how learning in reference to frameworks of tactical problems impacted the evolution of components of appropriate/inappropriate DM, and efficient/inefficient and successful/unsuccessful SE. A seventh-grade class of 26 students (10 girls, 16 boys; average age 12.3±1.3) participated in three seasons of invasion games (1-basketball: 20 x 45-mins lessons, 2-handball: 12 x 45-mins lessons; 3-football: 16 x 45-mins lessons). In each season, the pre-test and post-test performance of 10 sampled students was measured. There were found significant pre- to post-test increments in appropriate DM (handball and football) and successful SE (handball), and significant decreases in inefficient SE (football). Whereas pre-test scores of DM stabilized across the three sports, students showed higher entry scores of efficient and successful SE in seasons two and three when compared to season one. The post-test scores of appropriate DM and efficient and successful SE in seasons two and three were significantly higher than scores in season one. The decrease of the inappropriate DM and inefficient and unsuccessful SE in seasons two and three was superior to that found in season one. Whereas the DM components were affected positively by the program, the levels of successful/unsuccessful SE were less susceptible to modifications. The internal tactical configuration of the sports and specificity of games design were influential of the outcomes. Further inspection at the micro-level of instructional processes utilised in models-based physical education is warranted.
INTRODUCTION: Recent efforts in developing the quality of teacher education raise the question how further potentials within domain-specific structures of study programmes can be made accessible (BMBF, 2013). The presented study focuses on university-based practical courses and motor learning processes of students as an important component of Physical Education Teacher Education (PETE). To reflect upon possible improvements in PETE didactics, it seems essential first to empirically investigate the assumed potential. The research question therefore aims at students’ experiences and behavioural patterns in the context of a specific, self-set motor learning task.

METHOD: Students of six parallel seminar groups focusing on gymnastics were asked to choose one skill on the floor as well as one on another apparatus. At the beginning the state of the skill was videotaped. Subsequently the students chose self-set learning objectives, planned their personal training comprising at least three training sessions and carried it out. Finally, the new level of skill was videotaped. The training process was reflected upon in a learning diary. The data base of N = 110 written documents has been catalogued according to the criteria (among others) chosen skills, number and duration of training sessions and level of skill (pre/post). In the light of the research question, the documents are analysed using the qualitative content analysis with a combination of a theory-based deductive and data-based inductive approach.

RESULTS & CONCLUSION: The results are expected to give a differentiated insight into students’ experiences evoked by a skill-oriented motor learning process. The relevance for a domain-specific enhancement of quality in PETE is discussed in the context of embodied learning (Stolz, 2015).

REFERENCES
Exploring present moment awareness through movement: A diary study of participants’ experiences of a 10-week free improvised dance intervention

Saturday, 28th July - 14:45 - Oral - Embodied practice - Oral

Dr. Mattias Johansson (Örebro university), Dr. Therése Skoog (University of Gothenburg), Dr. Carolina Lunde (University of Gothenburg)

Many forms of physical activity are structured and have instrumental goals, such as losing weight or getting a fit body. Less focus is on exercisers’ experience of bodily, psychological and social aspects of movement that takes place in the present moment. Becoming more mindful is related to a number of beneficial outcomes. A physical activity that allows exercisers to explore present moment awareness without stressing instrumental goals, is free improvised dance. In free improvised dance, exercisers move, dance and express themselves to music freely and spontaneously. The aim was to gain a deeper understanding of exercisers’ subjective bodily, psychological, and social experiences of dancing. Participants were 10 women (mean age 49.4 years) who were part of a randomized controlled 10-week Free improvised dance intervention. Data were collected via diaries. At the onset of the intervention the participants were given diaries in which they were instructed to document their experiences of the dance sessions. They were specifically instructed to write about the sessions, how they felt in their bodies and about themselves when dancing and afterwards, any reflections they had, and any other experiences of importance. Thematic analysis (Braun & Clarke, 2006) was used to analyze the diaries. The experience of participating in the dance intervention is presented through nine themes: The group, Freedom of movement, Music and instructor, Insights, Acceptance, Safety, Getting in touch with oneself, Letting go of control and Expectations. By taking part in the Free improvised dance intervention the participants felt they could explore movement and express themselves freely in a safe environment. Many participants also expressed getting insights and new perspectives on themselves and their lives. Practicing free improvised dance, that is spontaneous and focus on the present moment may give the exerciser other experiences that traditional physical activity may not provide.
Physical Education from the Perspective of Adolescent Peer Groups: A Study on the Reconstruction of Collective Orientations regarding Physical Education

Saturday, 28th July - 14:45 - Oral - Embodied practice - Oral

Mrs. Lara Stamm (TU Dortmund University), Dr. Benjamin Zander (University of Goettingen)

Background and Purpose
Physical education (PE) from a pupil’s perspective is well researched, e.g. regarding interactive or teaching processes. According to the current state of research, however, studies on collective orientations of peer groups in PE are lacking. This presentation addresses this desideratum: Which collective orientation patterns do pupils show in PE lessons and how can these be bundled?

Methods
In total, 16 peer group discussions (N = 71) with seventh-grade pupils were carried out and evaluated through the documentary method (cf. Bohnsack, 2010).

Results
The different categories of reconstructed orientation patterns in PE can be categorised as orientations towards:

a) Peer culture: Directed at the peer groups which pursue non-sport interests within a relational orientation framework
b) Participation: Physical active class attendance of all pupils; sports practice is implemented individually against the background of variable sporting orientation frameworks
c) Achievement: Construction of achievement through e.g. sport competitions (higher - faster - further) within a sports-related orientation framework
d) Learning: Target-oriented and serving the development of sports motor skills and knowledge in the sense of an educational framework

Conclusions and Implications
The reconstructed orientation patterns indicate that a close understanding of PE as a place of learning at school does not apply to all surveyed pupils. Except for pattern d), the characteristics of the other three can be interpreted as a relativisation of learning requirements in PE. Three of the four patterns focus on sports and relationship-related relevance. The causes of this need to be further explored, including the sociogenesis of orientation patterns (e.g. regarding gender).

Literature
Korfball was invented in a mixed Primary School in Amsterdam in the 1900s (IKF, 2006; Summerfield and White, 1989). The main catalyst for the development of korfball was a need for a competitive mixed sport that relied on cooperation, and meant boys and girls could participate on a level playing field (Summerfield and White, 1989).

Previous research into gender in physical education (PE) has found that young people gain gender-related understandings through PE (Azzarito, 2009; and Azzarito and Solomon, 2009; Chalabaev, et al., 2013; Azzarito and Solomon, 2010; Wright, 1995). Thorne (1993) argues that to remove binary thinking and notions of hegemonic masculinity and femininity, PE lessons should promote equality between girls and boys, reflect cooperation and teamwork between all, and demonstrate to students that gender inclusivity is achievable.

This paper will discuss findings from a larger study which adopted an interpretivist approach, and used ethnographic methods such as participant observation and interviews to investigate how junior korfball players understand gender. Players frequently referred to the limitations with their current PE experiences, suggesting that the mixed element of korfball provides opportunities for boys and girls to come together in PE lessons. Players described how the structure of the korfball game reflects a need to use both sexes, and this might improve mixed PE lessons since, currently, PE involves the boys excluding the girls. Players also discussed preconceived ideas about girls playing boys’ games and boys playing girls’ games, which led to problematic actions and interactions in current mixed PE settings. Findings suggest that embodied practices which demonstrate the abilities of girls as well as boys, could lead to resistance of dominant discourses which reinforce gender difference and the physical inferiority of girls. Additionally, korfball might provide a space which alters dominant discourse often reproduced in a PE and sporting environment.
Empowering Physical Educators to deliver effective PE-for-Health Pedagogies

Saturday, 28th July - 14:45 - Oral - Teaching and researching health in physical education - Oral

Ms. Lara Tonna (Loughborough University), Dr. Lorraine Cale (Loughborough University), Dr. Jo Harris (Loughborough University), Dr. Rebecca Duncombe (Loughborough University)

Physical Education (PE) is claimed to be a subject that can promote health yet ‘a credible role for PE in public health’ (Armour & Harris, 2013, p.17) still needs to be identified through the development of effective PE-for-health pedagogies. Within the Maltese National Curriculum Framework (NCF) (DQSE, 2012), PE is included in the area of Health Education (HE) and specific learning outcomes centre on students becoming health literate. This calls for a need to develop more effective PE-for-Health pedagogies. This paper presents preliminary data from an ongoing doctoral study, part of which explores the expression of health within PE in Maltese schools. Phase 1 focused on the expectations of PE with regards to health, explored from the perspective of different stakeholders. Data were collected via semi-structured interviews with 32 participants from three stakeholder groups: policy makers and writers; PE officials and teacher trainers; and PE teachers from state, independent and church schools. Data analysis was carried out using a constructivist grounded theory approach (Charmaz, 2014). The findings revealed a disparity between health policy and practice. Whilst there was consensus that health in PE was important, there was a lack of clarity amongst all concerning the specific aims of the subject with respect to health and confusion regarding its expression in PE. The findings suggest physical educators need to be supported in order to meet PE for health expectations. Phase 2 of this study will therefore involve the development of a professional development programme that is innovative and needs-based, to deliver effective PE-for-health pedagogies.
The topic ‘Health’ in PETE in Bavaria, Germany – cooperative planning and changes in attitudes and mindsets

Saturday, 28th July - 14:45 - Oral - Teaching and researching health in physical education - Oral

Mrs. Mandy Lutz (University of Augsburg), Prof. Hans Peter Brandl-Bredenbeck (Augsburg), Dr. Julia Hapke (Eberhard Karls Universität Tübingen), Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nürnberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nürnberg)

Introduction

Health education plays a central role in German physical education curricula. In PE pupils should acquire sport-related health competence (SRHC), which enables them to maintain and restore health by physical activity in own responsibility (Töpfer, 2017). The presentation focuses on how PE teacher educators attitudes and mindsets change by a specific intervention.

Methods

Cooperative planning groups (cf. Bergmann et al. 2012) consisting of scientists, university lecturers, seminar-school teachers and students worked together to agree upon a common understanding of health and health competencies. From this common ground the groups elaborated new contents for their teaching. 12 teacher educators from 2 institutes of sports science (1st phase of teacher education) and 4 seminar-schools (2nd phase of teacher education) were surveyed by video observation and problem-centred and stimulated recall interviews pre and post. The data was transcribed and interpreted by content analysis.

Results

The exchange between the stake holders was considered to be extremely helpful. All stake holders dealt more consciously with the topic health in their respective setting. Thus, cooperative planning groups might be a good tool for changing reality. The data analysis is still ongoing. Preliminary insights indicate that the dichotomy of developing SRHC on the one hand and movement time on the other hand remains a core challenge for modern PE lessons.

Conclusion

In the next three years of the project (health.edu+) the focus will be on the implementation and evaluation of newly developed lesson plans in the school setting. The challenge will be to bridge the gap between conveying SRHC and the demand for „enough“ movement time in PE lessons.

References

Physical education (PE) teachers have increased access to digital/online continuous professional development (CPD) activities, notably through social media (Gleddie et al., 2016), blogs (Fletcher et al., 2016), and recently, Massive Open Online Courses (Griffiths et al., 2017). Yet there are few robust accounts of the types of online/digital professional development activities that teachers engage with, as well as their perceptions of these environments and the related impacts on their learning (Goodyear et al., 2015). The purpose of this study was to explore PE teachers’ engagement with digital/online PE-CPD.

A case study design was adopted of Korean secondary PE teachers. Data were generated from: (i) an open-ended online questionnaire (n=251); (ii) semi-structured interviews (n=20) with teachers. Quantitative data were analyzed for measures of central tendency and variance, and qualitative data were analyzed inductively. The data suggested that teachers engage with both digital/online CPD in formal (e.g., online course) and informal contexts (e.g., instant messenger). Formal digital/online CPD was engaged with to meet mandatory CPD requirement, yet the content was considered to be weak. Many teachers engaged with informal online-CPD program through, for example, a Mobile Instant Messenger chat Kakao Talk. In this informal space, teachers could access information that was relevant to their school and practices. However, discussions were often ‘hyjacked’ by a small group of teachers, and a number of teachers were unwilling to actively post for a fear of leaving a digital footprint. Overall, teachers preferred face-to-face CPD experiences and this was reflected in the lower satisfaction scores for digital/online CPD when compared to offline.

Despite new opportunities for teachers to engage in CPD in digital/online environments, data highlights the importance of providing complimentary offline CPD opportunities. The pedagogical design of community and discussion based chat forum requires privacy, structure and facilitation to support teacher engagement and learning.
The Relationship between Diagnostic Competence and Lesson Structuring by Physical Education Teachers and Its Benefit for student’s motivation and anxiety

Saturday, 28th July - 14:45 - Oral - Competence and capability - Oral

Prof. Miriam Seyda (University of muenster)

Introduction
Diagnostic competence represents an important prerequisite in the approach to teaching, as pedagogical decisions and actions, e.g. task selection, feedback to learners or evaluations, are carried out against the backdrop of the diagnosis of learning and learning performance prerequisites (Hoge & Coladarci, 1989; Südkamp, Kaiser & Möller, 2012). Schrader and Helmke (1987) found that high diagnostic competence in particular, coupled with a wide range of structuring measures in the classroom, best supported cognitive learning of students. Whether or not both also have an effect of student's motivation and anxiety in physical education class will be examined.

Methods
43 physical education teachers (3rd/4th grade) assessed the physical performance of each child in their class (754 students in total) on a scale of 1 to 5. The teachers’ assessment was connected to the student's physical performance data, which was measured in a test (5 test tasks, 5-point scale). The diagnostic competence was determined through the ranking component and the teachers were split into two groups (high vs. low). 754 students completed a questionnaire (5-point scale) comprising items to measure structuring in physical education class (Hermann et al., 2015), as well as items to measure anxiety and motivation. The 43 classes were differentiated by a median split according to high structuring and low structuring. It was furthermore considered whether the physical education teachers surveyed had a high or low diagnostic competence. Differences among students concerning motivation and anxiety were determined.

Results and conclusion
Those students whose physical education teachers had high diagnostic competence and demonstrated high structuring showed a significant higher level of motivation (F = 6.276; df = 3; p = .000; eta²:03) and an almost significant lower level of anxiety (F = 2.499; df = 3; p = .058, eta² = .01) in physical education class than the other students.
Diagnostic Competence of Physical Education Teachers and their Influence on Adaptive Teaching Structure in Sport

Introduction
Adapting classroom teaching to the individual learning needs and requirements of students necessitates teachers to be capable of an adequate evaluation of their students' learning performance requirements (diagnostic competence) (Artelt & Gräsel, 2009, pg. 157). To achieve an adaptive teaching structure, one must be able to derive suitable classroom measures (didactic competence) and combine them with diagnostic competence. This makes individual support possible and represents a significant foundation for the planning and realization of lessons (Brühwiler, 2017, pg. 123). How adaptively physical education teachers structure their lessons, and what the respective significance for diagnostic competence is, has hardly been researched in the physical education setting to date and will be examined within a sub-study of the DFG project ‘diagnostic competence of physical education teachers’ (Seyda, 2016-2018).

Methods
Ten physical education teachers (170 students) from primary schools in Germany were selected from a pool of 43 teachers (754 students): five with high and five with low diagnostic competence (contrastive approach). The quality of diagnostic competence was calculated from teacher questionnaires and the physical testing of students using the ranking component (Spinath, 2005). The teachers were systematically observed during 3 physical education lessons regarding the adaptive teaching structure (CLASS©) (Pianta, La Paro & Hamre, 2008) and also interviewed (evaluation utilises the documentary method).

Discussion
The degree to which differences or commonalities can be identified in the adaptive teaching structure or student assessments, and which orientation physical education teachers demonstrate regarding the structuring of lessons, will be evaluated by a comparative analysis across all interview cases (due to the documentary theory) and is also used to identify the teaching context. In a follow up the results will be compared within the two groups (high and low diagnostic competence) and the results of the interview evaluation will be presented at the conference.
Teaching and learning movement capability in PE: learning to run differently

Saturday, 28th July - 14:45 - Oral - Competence and capability - Oral

Dr. Gunn Nyberg (Dalarna university)

One aim with PEH in Sweden is to develop students all round movement capability. What movement capability means is however unclear and subsequently also what students are supposed to learn and know. Also, capability to move seems to be a taken-for-granted prerequisite for, or outcome of, being physically active.

This presentation reports an action research project taking a departure from previous research exploring what movement capability can mean. The result from this study indicated that knowing one's own way of moving was a significant specific way of knowing as a part of movement capability. The aim with this action research project was a) to investigate what it means, from the perspective of the students, to know one's own way of moving when running in different settings and with different purposes and B) to investigate how learning situations can be formed to provide possibilities for students to develop their knowing.

The project was conducted in collaboration with two PE teachers and two of their classes including a total of 40 students in upper secondary school in Sweden. A Learning study was carried out which included a pre-test, a phenomenographic analysis of the pre-test, planning teaching based on a phenomenographic approach to learning, implementing the teaching and a post-test. Then, based on analysis of the teaching and the pre-test, another cycle was carried out. Data was generated with the help of video- and audio recording.

The findings show a nuanced picture of what it means to know one's own way of running which was not possible to know from start. Also, the findings suggest that a phenomenographic approach to teaching can help students develop their awareness of their own ways of moving as well as challenging implicit 'standards of excellence', embedded in a common approach to teaching and learning movements in PE.
An Action Research of Implementing TPSR in High School Dragon Parade Classes

Saturday, 28th July - 14:45 - Oral - Competence and capability - Oral

Prof. Si Man Lei (University of Macau), Dr. Tanjian Liang (Central Washington University), Mr. Chin Ip Choi (Saint Paulo Secondary School), Mr. U Kei Wong (University of Macau)

**Introduction:** Dragon parade is one of the traditional and historical activities in Chinese culture. Students can potentially develop how to be responsible persons through learning in dragon parade. A high school physical education teacher, as a researcher, intended to develop a Teaching Personal and Social Responsibility (TPSR) program (Hellison, 2011) for student development in first four levels of TPSR. The ultimate goal is to help students develop themselves as positive models of others and physically active life-long learners. Therefore, the purpose of this study was to explore high school students’ attitude pertaining to respect, self-motivation, self-direction, and caring while teaching in dragon parade.

**Methods:** An action research as a qualitative research method intends to solve problems through cyclical process of thinking, acting, data collection and reflection (Savin-Baden & Major, 2013). Participants were 26 high school students: 19 males and 7 females. Data sources included: teacher journals and unit plans, teaching artifacts, semi-structured interviews, videotaping, and questionnaires. Trustworthiness was established through data triangulation, peer review, and member checks.

**Results:** The implementation of TPSR model in dragon parade classes seemed positively impact students’ learning in relation to respect, self-motivation, self-direction, and caring for others. Through considerable planning, teaching, and reflection, the physical education teacher acquired practical experience to enhancing students’ learning efficacy, refining TPSR program design as well as developing an interactive teaching and learning environment.

**Conclusions:** Results implied that physical education teachers should maintain favorable and positive attitudes in teaching and learning setting. In addition, being relational with students in class should be practicing through the use of TPSR model (Hellison, 2011). In general, it begs the questions as to the assessment for student learning of how they transfer learning to impacting others in the community.

**Keywords:** Action Research, TPSR, Dragon parade, Teaching of physical education
Quality physical activity programs in higher education should be developmentally and instructionally appropriate for all students, regardless their previous experiences and abilities (NASPE, 2007). To accomplish this goal, scholars suggest the implementation of selected curriculum models in college-level physical activity courses, including Sport Education (André & Hastie, 2017; Bennet & Hastie, 1997; Jenkins & Alderman, 2011).

This study explored college students’ perceptions of the Sport Education Model in a beginning volleyball class. Participants included 15 students (3 male; 12 female) from various degree programs enrolled in a one-credit beginning volleyball course at a public university in California. The course included the following key features of the Sport Education curriculum model: affiliation, diverse roles, formal competition, keeping records, culminating event, and festivity (Siedentop, 1994).

Data were collected across one semester through student generated journals, faculty memos, and focus groups. Data analysis followed an inductive content analysis, in which two researchers coded segments of data according to their meanings and clustered them into categories containing similar patterns of response. In this process, researchers compared and contrasted their codes and categories continuously through multiple debrief meetings.

Findings revealed three overarching themes describing students’ perceptions of the Sport Education model: 1-Being part of a team, 2-Learning the game, and 3-Taking responsibility. Each theme depicts students’ thoughts and feelings regarding the key features of a Sport Education season included in the volleyball course. These themes are also aligned with the tenants of the Self Determination Theory, suggesting that adopting the Sport Education model in higher education physical activity courses might motivate students to participate by meeting their needs for relatedness, competence and autonomy (Sun & Chen, 2010).
A (re)turn towards the critical? A narrative inquirer and a critical sociologist meet at a cafe to discuss research in ‘marginalized’ sport and PE communities

Saturday, 28th July - 14:45 - Oral - Reflections on Practice - Oral

Dr. Lee Schaefer (McGill University), Dr. Jordan Koch (McGill University)

Understanding how research paradigms shape research decisions is an important aspect of conducting qualitative research (Sparkes & Smith, 2009). However, in an effort to better understand how qualitative paradigms shape a project, researchers often establish hard paradigmatic binaries between what they do and the work of others. While on paper these binaries seem to work out neatly, as we engage in actual research, the apparent neatness of competing paradigms often dissolves into a messiness that is far less clear. One of these overlapping spaces, what Clandinin and Rosiek (2007) called a borderland space, exists between critical theory and narrative inquiry in their shared-commitment to understanding human experience. For the critical scholar, research and analysis act jointly as an intervention that seeks to both identify and change the material conditions that underlie oppressive social situations. In contrast, narrative inquiry, in its conventional sense, takes the immediacy of lived experiences, especially its narrative properties, as a fundamental reality that merits examination in and of itself. According to this view, all representations of experience – including representations of the macrosocial influences that shape peoples’ experience – ultimately arise in first-person narrative accounts and, thus, drawing attention to these accounts (Clandindin & Rosiek, 2007, pp. 49-50). In this presentation, we draw on empirical data from two ongoing studies with ‘marginalized’ sport and PE populations to illustrate how paradigmatic commitments to critical theory and narrative inquiry bump and overlap in situ. We tentatively argue that, when confronted by conditions of overwhelming material poverty, the ability to insulate theory from action remains an increasingly untenable position to hold. Nevertheless, we also argue that the narrative inquirer possesses a unique skillset and capability to incite social change, by way of mobilizing emotion through narrative-techniques that emphasize the ‘rawness’ of human experience in tough times.
This research provides insights into the experiences of a cohort of H&PE teachers and consultants as they were learning to become instructional coaches amidst curriculum change in one Canadian province. Moments of curriculum change offer critical periods through which teachers can be supported through targeted and ongoing professional learning and development (Hargreaves & Fullan, 2012; Patton, Parker, & Pratt, 2013). Instructional coaching is a job-embedded, sustained, and collaborative form of professional learning that “provides intensive, differentiated support to teachers so that they are able to implement proven practices” (Knight, 2009, p. 30) based on their context-specific needs.

METHODS: Over one year, instructional coaches (n =13) participated in three focus group interviews at the beginning, middle, and end of the professional learning initiative. They also contributed open-ended survey items at the beginning and end points. Data were first analyzed deductively (generating codes that reflected expectancy-value theory: self-efficacy, importance-value, and usefulness-value) and then inductively, where codes were generated that represented salient ideas, concepts, or experiences that did not necessarily represent a pre-identified theoretical framework.

RESULTS & IMPLICATIONS: Participants reported very positive experiences learning about and using instructional coaching. From their experiences, participants suggested that instructional coaching was an important and useful approach to professional learning that carried the potential to improve teachers’ abilities to implement the new H&PE curriculum in authentic and meaningful ways. Providing deep learning opportunities to fewer teachers was seen as mostly beneficial in the long-term. With that said, they also identified the substantial investment of time and money required to make instructional coaching effective for both instructional coaches and teachers. The mostly positive outcomes suggest that organizations that provide professional learning opportunities for teachers in H&PE may find instructional coaching to be a promising approach to supporting teachers’ sustained professional learning during times of curriculum change.
**Sub-theme 1: Physical education, policy engagement and economic liberalism**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Wyant &amp; Emi Tsuda</td>
<td>The physical education student teaching experience under edTPA</td>
</tr>
<tr>
<td>Stefan Meier &amp; Sebastian Ruin</td>
<td>ATIPE – An international comparative study on attitudes of PETE-students towards inclusive PE</td>
</tr>
<tr>
<td>Christophe Schnitzler, Elisabeth Regnault &amp; Jean Saint Martin</td>
<td>Developing competences or promoting sustainable development? What French and Norwegian curriculum in PE through outdoor education tells us about their respective school’s policy engagement?</td>
</tr>
</tbody>
</table>

**Sub-theme 2: Empowering practitioners and supporting professional learning**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathrin Kohake</td>
<td>Development and Validation of two Questionnaires for Children in Extracurricular Sports and Physical Education based on Self-Determination Theory</td>
</tr>
<tr>
<td>Juan Gregorio Fernández-Bustos, Andrea Hernández-Martínez, Alvaro Infantes Paniagua &amp; Sergio Picazo Flores</td>
<td>Weight status, physical fitness and their relationship with academic achievement among students in the 5th and 6th years of Elementary School</td>
</tr>
<tr>
<td>Christopher Wirth, Debra Vinci &amp; Alexandra Venezia</td>
<td>PACC Inoculation Intervention: Coaching Follow-up to Improve Curriculum Integration</td>
</tr>
<tr>
<td>Wu Pei-Yi &amp; Lin Ching Ping</td>
<td>Professional knowledge of school athletic coaches in Taiwan</td>
</tr>
<tr>
<td>Jonas Wibowo &amp; Claus Krieger</td>
<td>When and how do teachers cooperate? An interview study in the context of school internships in Physical Education Teacher Education</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Delphine Tremblay-Gagnon &amp; Maurice Tardiff</td>
<td>Teachers knowledge about students: the particularity of the Physical Education and Health (PEH) field</td>
</tr>
<tr>
<td>Kevin Patton &amp; Melissa Parker</td>
<td>All Roads Lead to Rome: Four Cases of Becoming a Physical Education Teacher Educator</td>
</tr>
<tr>
<td>Chen Shao-Wei &amp; Chinwei Chang</td>
<td>Professional Development of Taiwanese Primary Physical Education Teachers in Teaching Tactical Games Instructional module</td>
</tr>
<tr>
<td>Chen Chiu-Tsu &amp; Chinwei Chang</td>
<td>A Case Study of High School Principal’s Instructional Leadership and Physical Education Teacher’s Professional Development</td>
</tr>
<tr>
<td>Steffen Greve, Jessica Süßenbach, Bianca Troll, Michael Besser &amp; Simone Abels</td>
<td>Preparing Pre-Service Teachers for Inclusive Education: Analyzing the Status Quo and Comparing the Effect of Different Types of Subject-Specific Learning Opportunities at University on Beliefs, Self-Efficacy and Pedagogical Content Knowledge</td>
</tr>
<tr>
<td>Ming-Sheng Tseng &amp; Chinwei Chang</td>
<td>Classroom Teachers’ Professional Development for Teaching Movement Education Instructional module in Taiwanese Primary Schools</td>
</tr>
<tr>
<td>Anne-Sophie Aubin &amp; Cecilia Borges</td>
<td>How novice physical and health education (PHE) teachers in elementary and high schools experience their professional insertion in Quebec?</td>
</tr>
<tr>
<td>Mara Manson</td>
<td>Perceptions of Self-Efficacy and its Impact on Student Learning</td>
</tr>
<tr>
<td>Xiaoping Fan, Kevin Patton, Craig Buschner, Luciana Braga &amp; Cathrine Himberg</td>
<td>&quot;There Was Never Enough to Learn&quot;: The Role of Professional Conference Attendance on Teacher Candidates’ Development</td>
</tr>
</tbody>
</table>

**Sub-theme 3: Transformative learning and teaching in physical education and sports pedagogy**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patricia Barrington, Daniel Drost, Keith Young, Svetlana Mett &amp; Abubaker Elrashid</td>
<td>Transformative Learning Through Interdisciplinary Collaboration: Perspectives of Doctoral Students</td>
</tr>
<tr>
<td>Helena Baert, Matthew Madden &amp; Erica Pratt</td>
<td>Applying movement analysis skills in physical education teacher education: An online mastery-based learning approach</td>
</tr>
<tr>
<td>Ya-Chi Hsieh &amp; Chinwei Chang</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Students' learning outcomes through a literacy oriented teaching in primary school physical education</td>
<td>Patricia Barrington, Daniel Drost, Keith Young, Svetlana Mett &amp; Abubaker Elrashid</td>
</tr>
<tr>
<td>Transformative Learning Through Interdisciplinary Collaboration: Perspectives of Doctoral Students</td>
<td>Janelle Griffo &amp; Pamela Hodges Kulina</td>
</tr>
<tr>
<td>Merging Content in Physical Education</td>
<td>Tiago Lavoura &amp; Rui Neves</td>
</tr>
<tr>
<td>The educational purposes of physical education - curricular dialogues between Brazil and Portugal</td>
<td>Helena Baert, Matthew Madden &amp; Erica Pratt</td>
</tr>
<tr>
<td>Applying movement analysis skills in physical education teacher education: An online mastery-based learning approach</td>
<td>Irene González-Martí, Luis García-López, Andrea Hernández-Martínez &amp; Cristina Cuesta Zamora</td>
</tr>
<tr>
<td>Benefits of Cooperative Learning in Physical Education with disaffected children</td>
<td>Jennifer Mead</td>
</tr>
<tr>
<td>Sub-theme 4: Innovative perspectives on physical education, physical activity, health and wellbeing and sport</td>
<td>Manolis Adamakis &amp; Ioannis Papanikolaou</td>
</tr>
<tr>
<td>Physical Education Activation System (PEAS): A movement model with the future in mind</td>
<td>Karen Lambert &amp; Justen O’Connor</td>
</tr>
<tr>
<td>Assertiveness as a positive developmental outcome of interscholastic sport participation</td>
<td>Ya-Chi Hsieh &amp; Chinwei Chang</td>
</tr>
<tr>
<td>Preliminary validation study of children’s cycling skills test</td>
<td></td>
</tr>
<tr>
<td>Learning Environment in Physical Education and motivation in early childhood</td>
<td></td>
</tr>
<tr>
<td>Sub-theme 3: Transformative learning and teaching in physical education and sports pedagogy</td>
<td></td>
</tr>
</tbody>
</table>

**FRIDAY 27 JULY**

**Sub-theme 3: Transformative learning and teaching in physical education and sports pedagogy**
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' learning outcomes through a literacy oriented teaching in primary school physical education</td>
<td>Li Po-Ang &amp; Keh Nyit Chin</td>
</tr>
<tr>
<td>The Implementation of Teaching Personal and Social Responsibility Model on the Elementary School Frisbee PE Program: An Action Research</td>
<td>Juanita Sin Ting Cheung, Amy Ha &amp; Johan Ng</td>
</tr>
<tr>
<td>Need Thwarting Predicts Students' Autonomous Motivation and Controlled Motivation in Secondary Physical Education</td>
<td>Kuo Chin Lin &amp; Hui-Chun Hung</td>
</tr>
<tr>
<td>The effectiveness of adopting tablet and Facebook for badminton skill learning in physical education</td>
<td>Quin He, Amy Ha, Juanita Sin Ting Cheung &amp; Johan Ng</td>
</tr>
<tr>
<td>Exploring Female Students’ Motivation Towards Physical Education in Hong Kong Secondary Schools</td>
<td>Pan Yi-Hsiang, Chen-Hui Huang, Shih-Ping Chang, Hung-Lin Yu &amp; Wei-Ting Hsu</td>
</tr>
<tr>
<td>The learning effects of Teaching Games for Understanding integrated into Sport Education seasons</td>
<td>Christopher Wirth, Adam Woods &amp; Daniel Drost</td>
</tr>
<tr>
<td>Improving PETE Lesson Study Using Swivl Robot Classroom Observation Technology</td>
<td>Stephen Virgilio</td>
</tr>
<tr>
<td>Comprehensive School Physical Activity Programs-Model for Change</td>
<td>Tanjian Liang &amp; Melissa Parker</td>
</tr>
<tr>
<td>Physical Education Teacher Candidates' Development of Caring Relationships</td>
<td>Choi Siu Ming &amp; Raymond Kim-Wai Sum</td>
</tr>
<tr>
<td>Perceived Physical Literacy and Physical Education Teaching Efficacy among Hong Kong Pre-service Physical Education Teachers: A Preliminary Study</td>
<td>Kim Youngjoon, Lee Unjong &amp; Lee Okseon</td>
</tr>
<tr>
<td>Life Skills Development and Assessment in Elementary Physical Education Classes</td>
<td>Chang Shih-Ping, Yu Hung-Lin, Hsieh Ying-jung &amp; Pan Yi-Hsiang</td>
</tr>
<tr>
<td>Both teachers and students' experience after implementing TPSR integrated into sport education model program</td>
<td>Matthew Madden, Helena Baert &amp; Erica Pratt</td>
</tr>
<tr>
<td>Impact on student learning in Health and Physical Education: Perceptions of ‘new’ in-service teachers.</td>
<td>Cathal Óg O’Sullivan, Melissa Parker &amp; Tom Comyns</td>
</tr>
<tr>
<td>Enhancing Fundamental Movement Skills: Understanding Student Voices.</td>
<td>John Todorovich &amp; Daniel Drost</td>
</tr>
<tr>
<td>Learning an Unfamiliar Motor Skill in the Absence of Augmented Teacher Feedback</td>
<td></td>
</tr>
</tbody>
</table>
Tsai Yu-lin & Chingwei Chang
Integrating Mobile Learning into Mosston's Reciprocal Style of Teaching: A case of Junior High School Students’ basketball learning

Wei-Ting Hsu, Min Pan & Yi-Hsiang Pan
The Role of Student Perceived RISE-support in Physical Education

Hseng Zyung Neo & Nyit Chin Keh
The Reflection of a Physical Education Student Teacher’s Teaching Experience

En-Hua Chan, Nyit Chin Keh & Chingwei Chang
Constructing the Concept of Literacy-Oriented Physical Education Curriculum in Taiwan

Min-Hua Chung
Study of culturally relevant physical education in elementary schools

Cai-ling Wu & Chingwei Chang
Integrating mobile-learning with aerobic dance for PE class: The effects of students’ learning outcomes

Naho Matsumoto
What students learn at net ball game play?; student’s conception in children’s drawings

Xiuye Xie, Weidong Li & Daekyun Oh
Effects of Situated Game Teaching through Situated Set Plays on Secondary Students’ Tactical Knowledge and Situational Interest in physical education

Physical Education in Primary Education in Portugal: a case study on teaching models
Juliana Rodrigues & Rui Neves

SATURDAY 28 JULY

Sub-theme 4: Innovative perspectives on physical education, physical activity, health and wellbeing and sport

Rosalind Whitworth, Lorraine Cale & Jo Harris
Developing a feasible, sustainable and inclusive physical activity intervention in a case study primary school

Felix Berrigan, Pascale Morin, Irma Clapperton, Gino Perreault & Christine Giguère
Managing screen viewing in children: a challenge for many families

Stefania-Maria Aggelaki & Nikolaos Digelidis
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school students’ physical activity and readability performance at school: Is there any connection?</td>
<td>Katsuro Kitamura &amp; Tokuka Inn</td>
</tr>
<tr>
<td>Impact of using digital pens on flipped learning in athletic activities of high school students</td>
<td>Léo Bessette, Sylvain Turcotte &amp; Sylvie Beaudoin</td>
</tr>
<tr>
<td>Describing the physical activity of high school students who have participated in Global Health approach in elementary school.</td>
<td>Ann-Christin Sollerhed &amp; Gerth Hedov</td>
</tr>
<tr>
<td>Physical activity among children with Down Syndrome</td>
<td>Nicola Beirne, Victoria Goodyear &amp; Mark Griffiths</td>
</tr>
<tr>
<td>How is health understood by young people through social media?: an exploratory study</td>
<td>So Nemoto, Yusuke Okada &amp; Saki Tohkairin</td>
</tr>
<tr>
<td>Why do People Become Amateur Runners? The Process of Acquiring a Physically Active Lifestyle in Japan</td>
<td>Silvio Addolorato, Gabriella Frattini, Paola Vago &amp; Francesco Casolo</td>
</tr>
<tr>
<td>Sports and online social networking: existing ways of using in a population of 2255 developmental aged subjects</td>
<td>Laura Power, Kristy Howells &amp; Laura Gubby</td>
</tr>
<tr>
<td>The impact of wellbeing on the physical activities of occupational therapy (OT) for a child with dyspraxia.</td>
<td>Kristy Howells &amp; Tara Coppinger</td>
</tr>
<tr>
<td>'Drive to drink!'</td>
<td>Christian Herrmann, Christopher Heim, Fabienne Enningkeit &amp; Harald Seelig</td>
</tr>
<tr>
<td>Diagnosis and development of basic motor competencies</td>
<td>Jérémy Bonni, Jean-Philippe Dupont, Benoit Vercruysse, Catherine Draye &amp; Marc Cloes</td>
</tr>
<tr>
<td>Development of an affective learning observable framework in physical education: a feasibility study.</td>
<td>William Patx, Victoria Goodyear &amp; Mark Griffiths</td>
</tr>
<tr>
<td>The physical education reform in Wallonia-Brussels Federation (Belgium)</td>
<td>Debra Vinci, Christopher Wirth, Alexandra Venezia &amp; Jordan Freeze</td>
</tr>
<tr>
<td>Walkers Finds His Wiggle: Formative Process in Developing a Picture Book to Foster Physical Literacy in Young Children</td>
<td>Félix Berrigan, Marc Bélisle &amp; Rémi Richelme</td>
</tr>
<tr>
<td>Combining mindfulness and physical activity: effects on executive functions and perceived stress in elementary school children</td>
<td>Sylvai Turcotte, Félix Berrigan, Sylvie Beaudoin, Jonathan Chevrier &amp; David Bezeau</td>
</tr>
<tr>
<td>Implementation of school-based physical activity interventions in secondary school: facilitators and barriers</td>
<td>Debra Vinci, Christopher Wirth, Alexandra Venezia &amp; Jordan Freeze</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Cecilia Chan, Amy Ha &amp; Johan Ng</td>
<td>Parent and Child Fundamental Movement Skill Competence: Do Physically Skilled Parents Have Physically Skilled Children?</td>
</tr>
<tr>
<td>Nollaig McEvilly</td>
<td>What is physical education (PE), and who teaches it? Undergraduate PE students’ views and experiences of the outsourcing of PE in the UK.</td>
</tr>
<tr>
<td>Marc-André Duchesneau &amp; Cecilia Borges</td>
<td>Measuring developmental experiences of student-athletes participating in “Programme Sport-études”, an intensive training program offered in Québec, Canada.</td>
</tr>
<tr>
<td>Yuko Hatano &amp; Rumi Otake</td>
<td>A Practical Study of Noguchi Taiso in Creative Lesson School in Japan</td>
</tr>
<tr>
<td>Nikolaos Digelidis, Xrysa Sevdali, Styliani Katsantoni &amp; Spyridoula Vazou</td>
<td>Classroom break physical activities and students’ active engagement</td>
</tr>
<tr>
<td>Maria João Silva, Mariana Pereira, Rafaela Queirós, Samuel Ferreira &amp; Rui Neves</td>
<td>Physical Education Interim Benchmarks Assessment at Elementary School in Portugal – teachers’ expectations</td>
</tr>
<tr>
<td>Hirokazu Matsuo &amp; Tsuyoshi Matsumoto</td>
<td>Effectiveness of the “Shoulder-Tackle” program on tackling safety and performance in American football</td>
</tr>
<tr>
<td>Jing Qi, Wenhong Xu &amp; Lijuan Wang</td>
<td>Social Interaction between Students with and without Disabilities in General Physical Education: A Chinese Perspective</td>
</tr>
</tbody>
</table>
## Authors Index

<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abel, T.</td>
<td>114</td>
</tr>
<tr>
<td>Abelsen, K.</td>
<td>208</td>
</tr>
<tr>
<td>Adamakis, M.</td>
<td>126</td>
</tr>
<tr>
<td>Akyar, Ö.</td>
<td>182</td>
</tr>
<tr>
<td>Alagul, O.</td>
<td>8</td>
</tr>
<tr>
<td>Albione, S.</td>
<td>225</td>
</tr>
<tr>
<td>Amorose, A.</td>
<td>84</td>
</tr>
<tr>
<td>Anderson, H.</td>
<td>58</td>
</tr>
<tr>
<td>Anderson-Butcher, D.</td>
<td>61, 84</td>
</tr>
<tr>
<td>Araújo, R.</td>
<td>32</td>
</tr>
<tr>
<td>AVSAR, Z.</td>
<td>35</td>
</tr>
<tr>
<td>Backman, E.</td>
<td>124</td>
</tr>
<tr>
<td>Bardid, F.</td>
<td>81, 146</td>
</tr>
<tr>
<td>Barker, D.</td>
<td>46, 124</td>
</tr>
<tr>
<td>Barrett, J.</td>
<td>156</td>
</tr>
<tr>
<td>Bartsch, F.</td>
<td>151</td>
</tr>
<tr>
<td>Beaumont, L.</td>
<td>6, 96</td>
</tr>
<tr>
<td>Becker, B.</td>
<td>18</td>
</tr>
<tr>
<td>Beighle, A.</td>
<td>137</td>
</tr>
<tr>
<td>Belton, S.</td>
<td>77, 130</td>
</tr>
<tr>
<td>Beni, S.</td>
<td>36, 119</td>
</tr>
<tr>
<td>Berg, S.</td>
<td>34</td>
</tr>
<tr>
<td>Bierens, J.</td>
<td>146</td>
</tr>
<tr>
<td>Bindel, T.</td>
<td>18</td>
</tr>
<tr>
<td>Bohler, H.</td>
<td>131</td>
</tr>
<tr>
<td>Bojesen, E.</td>
<td>72</td>
</tr>
<tr>
<td>Borges, C.</td>
<td>138</td>
</tr>
<tr>
<td>Borghouts, L.</td>
<td>160, 184</td>
</tr>
<tr>
<td>Bowles, R.</td>
<td>26, 69</td>
</tr>
<tr>
<td>Braga, L.</td>
<td>223</td>
</tr>
<tr>
<td>Brandl-Bredenbeck, H.</td>
<td>91, 153, 217</td>
</tr>
<tr>
<td>Brazier, R.</td>
<td>44</td>
</tr>
<tr>
<td>Bredahl, T.</td>
<td>186</td>
</tr>
<tr>
<td>Breithecker, J.</td>
<td>91, 153</td>
</tr>
<tr>
<td>BROWN, P.</td>
<td>147</td>
</tr>
<tr>
<td>Brown, P.</td>
<td>210</td>
</tr>
<tr>
<td>Brun Sundblad, G.</td>
<td>164</td>
</tr>
<tr>
<td>Brusseau, T.</td>
<td>145</td>
</tr>
<tr>
<td>Bryant, A.</td>
<td>177, 179</td>
</tr>
<tr>
<td>Bund, A.</td>
<td>80</td>
</tr>
<tr>
<td>Burns, D.</td>
<td>22</td>
</tr>
<tr>
<td>Butler, J.</td>
<td>22</td>
</tr>
<tr>
<td>Bükers, F.</td>
<td>108</td>
</tr>
<tr>
<td>Cairney, J.</td>
<td>137</td>
</tr>
<tr>
<td>Calderón, A.</td>
<td>98, 115, 178</td>
</tr>
<tr>
<td>Cale, L.</td>
<td>1, 196, 216</td>
</tr>
<tr>
<td>Camacho-Mañano, M.</td>
<td>113</td>
</tr>
<tr>
<td>Cantell, M.</td>
<td>168</td>
</tr>
<tr>
<td>Carbinatto, M.</td>
<td>59, 159</td>
</tr>
<tr>
<td>Carraro, A.</td>
<td>20, 54, 139</td>
</tr>
<tr>
<td>Carreiro da Costa, F.</td>
<td>68, 174</td>
</tr>
<tr>
<td>Carse, N.</td>
<td>2, 37, 172</td>
</tr>
<tr>
<td>Carson, R.</td>
<td>143</td>
</tr>
<tr>
<td>Casey, A.</td>
<td>74, 162</td>
</tr>
<tr>
<td>Cassidy, T.</td>
<td>170</td>
</tr>
<tr>
<td>Castle, N.</td>
<td>13</td>
</tr>
<tr>
<td>Castro, J.</td>
<td>32</td>
</tr>
<tr>
<td>Chambers, F.</td>
<td>67, 71, 125, 197</td>
</tr>
<tr>
<td>Chan, C.</td>
<td>78, 144</td>
</tr>
<tr>
<td>CHANG, C.</td>
<td>207</td>
</tr>
<tr>
<td>Chang, W.</td>
<td>76</td>
</tr>
<tr>
<td>Charalambous, C.</td>
<td>117</td>
</tr>
<tr>
<td>Charzewská, J.</td>
<td>53</td>
</tr>
<tr>
<td>Cheng, I.</td>
<td>76</td>
</tr>
<tr>
<td>Chian, L.</td>
<td>187</td>
</tr>
<tr>
<td>Choi, C.</td>
<td>222</td>
</tr>
<tr>
<td>Choi, E.</td>
<td>193, 218</td>
</tr>
<tr>
<td>Clarke, H.</td>
<td>130</td>
</tr>
<tr>
<td>Claro, J.</td>
<td>174</td>
</tr>
<tr>
<td>Cloes, M.</td>
<td>4</td>
</tr>
<tr>
<td>Colby, R.</td>
<td>15</td>
</tr>
<tr>
<td>Coleman, V.</td>
<td>194</td>
</tr>
<tr>
<td>Coolkens, R.</td>
<td>100, 142</td>
</tr>
<tr>
<td>Cooper, S.</td>
<td>177</td>
</tr>
<tr>
<td>Costa, J.</td>
<td>71, 125, 192, 199</td>
</tr>
<tr>
<td>Coulter, M.</td>
<td>161, 205</td>
</tr>
<tr>
<td>Craig, M.</td>
<td>55, 73</td>
</tr>
<tr>
<td>Cronin, C.</td>
<td>94, 183</td>
</tr>
<tr>
<td>Cropley, B.</td>
<td>3</td>
</tr>
<tr>
<td>Cunha, M.</td>
<td>32</td>
</tr>
<tr>
<td>Cushion, C.</td>
<td>93</td>
</tr>
<tr>
<td>Cuthbert, B.</td>
<td>67</td>
</tr>
</tbody>
</table>
Czarniecka, R. 53
Dagkas, S. 45
Daum, D. 89
De Martelaer, K. 19, 146
Delevoy, Y. 188
Demirhan, G. 182
Dervent, F. 191
devrilmez, e. 191
Digelidis, N. 4
DinanThompson, M. 57
Dong, J. 11
dong, j. 38
Dooley, A. 23
Doolittle, S. 167
Downham, L. 93
Drijvers, H. 142
Dudley, D. 137
Duncan, M. 79
Duncombe, R. 216
Dyson, B. 15, 171
Eather, N. 14, 79
Eberline, A. 48, 128
Edwards, K. 158
Edwards, L. 177, 179
Ehalt, S. 4
Ekberg, J. 175
Enright, E. 1, 69, 103, 198
Enright, K. 94
Erhan, E. 132
Fairclough, S. 77
Fan, X. 223
Farias, C. 92, 211
Fernández-Bustos, J. 185
Ferry, M. 148
Fitzgerald-Bustos, H. 209
Fjortoft, I. 105
Fletcher, T. 103, 119, 225
Fossøy, J. 21
Franck, N. 4
Fretland, R. 21
García-López, L. 60, 149
Geidne, S. 52, 165
Giess-Stueber, P. 40, 166
Gill, D. 147, 210
Gleddie, D. 34, 155, 195
Glover, K. 225
Gobbi, E. 20, 54
Gomes, L. 174
Goncalves, L. 159
Gong, Y. 127
Gonzalez-Calvo, G. 118
González-Martí, I. 185
Goodway, J. 132, 158
Goodyear, V. 1, 218
Gray, S. 37, 82, 88, 111
Griffiths, M. 95, 193
Griffo, J. 145
Grimminger-Seidensticker, E. 140
Gubby, L. 13, 215
Guberman, A. 127
Gursel, F. 8
Gutierrez-Diaz del Campo, D. 60, 149
Ha, A. 78, 144
Haapala, H. 70
Haerens, L. 19, 160
Halliday, C. 99
Han, S. 203
Hapke, J. 217
Hargreaves, S. 121
Harris, J. 196, 216
Harvey, B. 157
Harvey, S. 25, 31
Hastie, P. 92, 211
Haughey, T. 71
Hemphill, M. 141, 147, 210
Hennig, L. 195
Herb, J. 40
Hernández-Martínez, A. 185
Herold, F. 27
Herrmann, C. 9, 80
Hill, J. 110, 198
Hodgin, K. 143
Holst, J. 104
Hooper, O. 196, 197
Hopper, T. 2, 172
Hordvik, M. 36
Horrell, A. 37, 55, 173
Hovdal, D. 39, 42
Howells, K. 13, 66, 105, 206
Huang, Y. 76
Hunuk, D. 204
Hyndman, B. 31
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iannucci, C.</td>
<td>120</td>
</tr>
<tr>
<td>Imig, S.</td>
<td>14</td>
</tr>
<tr>
<td>Ince, M.</td>
<td>7, 191</td>
</tr>
<tr>
<td>Isaac, T.</td>
<td>23</td>
</tr>
<tr>
<td>Isaka, T.</td>
<td>75</td>
</tr>
<tr>
<td>Iserbyt, P.</td>
<td>100, 138, 142</td>
</tr>
<tr>
<td>Issartel, J.</td>
<td>77, 130</td>
</tr>
<tr>
<td>Jancer Ferreira, H.</td>
<td>81</td>
</tr>
<tr>
<td>Jenkins, J.</td>
<td>138</td>
</tr>
<tr>
<td>Jess, M.</td>
<td>200, 201</td>
</tr>
<tr>
<td>Jidovtseff, B.</td>
<td>105</td>
</tr>
<tr>
<td>Johansson, M.</td>
<td>213</td>
</tr>
<tr>
<td>John, A.</td>
<td>158</td>
</tr>
<tr>
<td>Jones, A.</td>
<td>177</td>
</tr>
<tr>
<td>Jones, E.</td>
<td>128</td>
</tr>
<tr>
<td>Jung, H.</td>
<td>193</td>
</tr>
<tr>
<td>Juutinen, T.</td>
<td>168</td>
</tr>
<tr>
<td>Juutinen-finni, T.</td>
<td>63</td>
</tr>
<tr>
<td>Kaitell, E.</td>
<td>102</td>
</tr>
<tr>
<td>Kehne, M.</td>
<td>91</td>
</tr>
<tr>
<td>Kelly, J.</td>
<td>111</td>
</tr>
<tr>
<td>Kennedy, L.</td>
<td>3</td>
</tr>
<tr>
<td>Kerner, C.</td>
<td>140</td>
</tr>
<tr>
<td>Kihara, S.</td>
<td>200</td>
</tr>
<tr>
<td>Klic, K.</td>
<td>7</td>
</tr>
<tr>
<td>Kim, Y.</td>
<td>24, 203</td>
</tr>
<tr>
<td>Kinnerk, P.</td>
<td>25</td>
</tr>
<tr>
<td>Kirk, D.</td>
<td>1, 50, 69, 81, 102, 140, 171</td>
</tr>
<tr>
<td>Klemola, U.</td>
<td>5</td>
</tr>
<tr>
<td>Knipe, R.</td>
<td>128</td>
</tr>
<tr>
<td>Knowles, Z.</td>
<td>94</td>
</tr>
<tr>
<td>Knudsen, L.</td>
<td>186</td>
</tr>
<tr>
<td>Koch, J.</td>
<td>224</td>
</tr>
<tr>
<td>Kohake, K.</td>
<td>150</td>
</tr>
<tr>
<td>Kokko, S.</td>
<td>106, 165</td>
</tr>
<tr>
<td>Korte, J.</td>
<td>140</td>
</tr>
<tr>
<td>Krause, J.</td>
<td>143</td>
</tr>
<tr>
<td>Kroll, L.</td>
<td>153</td>
</tr>
<tr>
<td>Kujala, T.</td>
<td>85</td>
</tr>
<tr>
<td>Kulinna, P.</td>
<td>145</td>
</tr>
<tr>
<td>Kurihara, T.</td>
<td>75</td>
</tr>
<tr>
<td>Kyriakides, E.</td>
<td>117</td>
</tr>
<tr>
<td>Kämppi, K.</td>
<td>106</td>
</tr>
<tr>
<td>Lam, K.</td>
<td>16</td>
</tr>
<tr>
<td>Lambert, K.</td>
<td>12, 86</td>
</tr>
<tr>
<td>Landi, D.</td>
<td>43</td>
</tr>
<tr>
<td>Langer, A.</td>
<td>220</td>
</tr>
<tr>
<td>Larsson, H.</td>
<td>162</td>
</tr>
<tr>
<td>Lask-schoenmaekers, M.</td>
<td>40</td>
</tr>
<tr>
<td>Laukkanen, A.</td>
<td>63, 168</td>
</tr>
<tr>
<td>Lauritsalo, K.</td>
<td>5</td>
</tr>
<tr>
<td>Lauritzen, Å.</td>
<td>21</td>
</tr>
<tr>
<td>Lawson, H.</td>
<td>97, 103, 171</td>
</tr>
<tr>
<td>Lee, O.</td>
<td>193, 218</td>
</tr>
<tr>
<td>Lee, W.</td>
<td>218</td>
</tr>
<tr>
<td>Leeder, T.</td>
<td>6, 96</td>
</tr>
<tr>
<td>Legrain, P.</td>
<td>33</td>
</tr>
<tr>
<td>Lei, S.</td>
<td>16, 64, 222</td>
</tr>
<tr>
<td>Leineweber, H.</td>
<td>152</td>
</tr>
<tr>
<td>Leirhaug, P.</td>
<td>21, 208</td>
</tr>
<tr>
<td>Lenartowicz, M.</td>
<td>53</td>
</tr>
<tr>
<td>Leong, C.</td>
<td>16</td>
</tr>
<tr>
<td>León González, P.</td>
<td>185</td>
</tr>
<tr>
<td>Li, Z.</td>
<td>64</td>
</tr>
<tr>
<td>Liang, T.</td>
<td>222</td>
</tr>
<tr>
<td>Liang, Y.</td>
<td>38</td>
</tr>
<tr>
<td>Lin, C.</td>
<td>207</td>
</tr>
<tr>
<td>Lin, K.</td>
<td>76</td>
</tr>
<tr>
<td>Lin, N.</td>
<td>200</td>
</tr>
<tr>
<td>Lodewyk, K.</td>
<td>225</td>
</tr>
<tr>
<td>Lofstesnes, J.</td>
<td>39, 42</td>
</tr>
<tr>
<td>Lopes, P.</td>
<td>59</td>
</tr>
<tr>
<td>Louise, M.</td>
<td>69</td>
</tr>
<tr>
<td>Lubans, D.</td>
<td>154</td>
</tr>
<tr>
<td>Lugueti, C.</td>
<td>59, 107, 159</td>
</tr>
<tr>
<td>Lunde, C.</td>
<td>213</td>
</tr>
<tr>
<td>Lundvall, S.</td>
<td>112, 164</td>
</tr>
<tr>
<td>Lutz, M.</td>
<td>217</td>
</tr>
<tr>
<td>Lynch, S.</td>
<td>116</td>
</tr>
<tr>
<td>Lyons, M.</td>
<td>25</td>
</tr>
<tr>
<td>Macdonald, D.</td>
<td>69</td>
</tr>
<tr>
<td>MacDonncha, C.</td>
<td>25, 163</td>
</tr>
<tr>
<td>MacIsaac, S.</td>
<td>111</td>
</tr>
<tr>
<td>Macken, S.</td>
<td>178</td>
</tr>
<tr>
<td>MacLean, J.</td>
<td>37</td>
</tr>
<tr>
<td>MacPhail, A.</td>
<td>35, 59, 97, 98, 103, 120, 127, 162, 163, 178, 192, 204</td>
</tr>
<tr>
<td>Maher, A.</td>
<td>209</td>
</tr>
<tr>
<td>Main, K.</td>
<td>17</td>
</tr>
<tr>
<td>Mangione, J.</td>
<td>134</td>
</tr>
<tr>
<td>Marcelino, R.</td>
<td>32</td>
</tr>
<tr>
<td>Markwell, K.</td>
<td>3</td>
</tr>
<tr>
<td>Marron, S.</td>
<td>161, 205</td>
</tr>
<tr>
<td>Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Martin, A.</td>
<td>62</td>
</tr>
<tr>
<td>Martins, J.</td>
<td>68, 90, 125, 174</td>
</tr>
<tr>
<td>Martins, M.</td>
<td>192</td>
</tr>
<tr>
<td>Marttila, M.</td>
<td>85</td>
</tr>
<tr>
<td>Marttinen, R.</td>
<td>89, 141</td>
</tr>
<tr>
<td>Martínez-Alvarez, L.</td>
<td>118</td>
</tr>
<tr>
<td>Martínez-Baena, A.</td>
<td>133</td>
</tr>
<tr>
<td>Mavilidi, M.</td>
<td>154</td>
</tr>
<tr>
<td>McCuaig, L.</td>
<td>198</td>
</tr>
<tr>
<td>McCullick, B.</td>
<td>23</td>
</tr>
<tr>
<td>McCullick, B.</td>
<td>67</td>
</tr>
<tr>
<td>McCulloch, E.</td>
<td>122</td>
</tr>
<tr>
<td>McGrane, B.</td>
<td>77</td>
</tr>
<tr>
<td>McChlachlan, A.</td>
<td>72</td>
</tr>
<tr>
<td>McMillan, P.</td>
<td>55, 56, 200</td>
</tr>
<tr>
<td>McMillan, P.</td>
<td>2</td>
</tr>
<tr>
<td>McMullen, J.</td>
<td>70, 143</td>
</tr>
<tr>
<td>Meegan, S.</td>
<td>130</td>
</tr>
<tr>
<td>Mehtätä, A.</td>
<td>106</td>
</tr>
<tr>
<td>Meier, S.</td>
<td>138</td>
</tr>
<tr>
<td>Meroño, L.</td>
<td>115</td>
</tr>
<tr>
<td>Mesquita, I.</td>
<td>92, 211</td>
</tr>
<tr>
<td>Miller, A.</td>
<td>14, 79</td>
</tr>
<tr>
<td>Mitchell-Williams, E.</td>
<td>179</td>
</tr>
<tr>
<td>Moles, J.</td>
<td>197</td>
</tr>
<tr>
<td>Molina, P.</td>
<td>133</td>
</tr>
<tr>
<td>Morgan, A.</td>
<td>155</td>
</tr>
<tr>
<td>Morgan, K.</td>
<td>177, 179</td>
</tr>
<tr>
<td>Morgan, P.</td>
<td>154</td>
</tr>
<tr>
<td>Morley, D.</td>
<td>180</td>
</tr>
<tr>
<td>Morrison, H.</td>
<td>195</td>
</tr>
<tr>
<td>Mulhearn, S.</td>
<td>145</td>
</tr>
<tr>
<td>Murphy, F.</td>
<td>101, 205</td>
</tr>
<tr>
<td>Murray, A.</td>
<td>102</td>
</tr>
<tr>
<td>Mäkinen, T.</td>
<td>5</td>
</tr>
<tr>
<td>Mäntylä, E.</td>
<td>63</td>
</tr>
<tr>
<td>Möhwald, A.</td>
<td>140</td>
</tr>
<tr>
<td>Nagano, A.</td>
<td>75</td>
</tr>
<tr>
<td>Naul, R.</td>
<td>199</td>
</tr>
<tr>
<td>Neutzling, M.</td>
<td>131</td>
</tr>
<tr>
<td>Ng, J.</td>
<td>78, 144</td>
</tr>
<tr>
<td>Niemistö, D.</td>
<td>63, 168</td>
</tr>
<tr>
<td>North, C.</td>
<td>2</td>
</tr>
<tr>
<td>Nyberg, G.</td>
<td>221</td>
</tr>
<tr>
<td>Næsheim-Bjørkvik, G.</td>
<td>200</td>
</tr>
<tr>
<td>Ní Chróinín, D.</td>
<td>26, 70, 119</td>
</tr>
<tr>
<td>Nørager Johansen, D.</td>
<td>135</td>
</tr>
<tr>
<td>O’Dwyer, A.</td>
<td>26, 36</td>
</tr>
<tr>
<td>O’Sullivan, M.</td>
<td>134, 199</td>
</tr>
<tr>
<td>O’Brien, W.</td>
<td>71, 130</td>
</tr>
<tr>
<td>O’Connor, J.</td>
<td>12, 176, 201</td>
</tr>
<tr>
<td>Odipo, T.</td>
<td>114</td>
</tr>
<tr>
<td>Oesterhelt, V.</td>
<td>212</td>
</tr>
<tr>
<td>Oliver, K.</td>
<td>107</td>
</tr>
<tr>
<td>Olszewska, E.</td>
<td>53</td>
</tr>
<tr>
<td>Onofre, M.</td>
<td>68, 71, 125, 192, 199</td>
</tr>
<tr>
<td>Opstoel, K.</td>
<td>19</td>
</tr>
<tr>
<td>Otomo, S.</td>
<td>75</td>
</tr>
<tr>
<td>Otsuka, M.</td>
<td>75</td>
</tr>
<tr>
<td>Owens, A.</td>
<td>2, 172</td>
</tr>
<tr>
<td>Padaruth, S.</td>
<td>48</td>
</tr>
<tr>
<td>Pang, B.</td>
<td>110</td>
</tr>
<tr>
<td>Papaioannou, A.</td>
<td>139</td>
</tr>
<tr>
<td>Parker, M.</td>
<td>134, 159</td>
</tr>
<tr>
<td>Patel, B.</td>
<td>102</td>
</tr>
<tr>
<td>Pearson, J.</td>
<td>72</td>
</tr>
<tr>
<td>Penney, D.</td>
<td>47, 99, 176</td>
</tr>
<tr>
<td>Pesce, C.</td>
<td>171</td>
</tr>
<tr>
<td>Phelan, S.</td>
<td>95</td>
</tr>
<tr>
<td>Polemitou, I.</td>
<td>117</td>
</tr>
<tr>
<td>Potdevin, F.</td>
<td>188</td>
</tr>
<tr>
<td>Powell, D.</td>
<td>77</td>
</tr>
<tr>
<td>Pratt, E.</td>
<td>141</td>
</tr>
<tr>
<td>Prins, F.</td>
<td>19</td>
</tr>
<tr>
<td>Provenzano, J.</td>
<td>61, 84</td>
</tr>
<tr>
<td>Ptack, K.</td>
<td>51</td>
</tr>
<tr>
<td>Ptack, R.</td>
<td>181</td>
</tr>
<tr>
<td>Quarmby, T.</td>
<td>169</td>
</tr>
<tr>
<td>Quennerstedt, M.</td>
<td>1, 162</td>
</tr>
<tr>
<td>Quitério, A.</td>
<td>68</td>
</tr>
<tr>
<td>Ramos, M.</td>
<td>174</td>
</tr>
<tr>
<td>Randall, L.</td>
<td>156</td>
</tr>
<tr>
<td>Randall, V.</td>
<td>72</td>
</tr>
<tr>
<td>Reifsteck, E.</td>
<td>147, 210</td>
</tr>
<tr>
<td>Reuker, S.</td>
<td>109</td>
</tr>
<tr>
<td>Rhoades, J.</td>
<td>172</td>
</tr>
<tr>
<td>Richards, K.</td>
<td>30, 120, 141</td>
</tr>
<tr>
<td>Richardson, K.</td>
<td>131</td>
</tr>
<tr>
<td>Richartz, A.</td>
<td>150</td>
</tr>
<tr>
<td>Riley, N.</td>
<td>14, 79, 154</td>
</tr>
<tr>
<td>Rischke, A.</td>
<td>109</td>
</tr>
<tr>
<td>Robinson, D.</td>
<td>34, 156, 202</td>
</tr>
<tr>
<td>Rodrigues, A.</td>
<td>68</td>
</tr>
<tr>
<td>Name</td>
<td>Page References</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Romar, J.</td>
<td>41</td>
</tr>
<tr>
<td>Rosevear, R.</td>
<td>170</td>
</tr>
<tr>
<td>Routen, A.</td>
<td>70</td>
</tr>
<tr>
<td>Ruin, S.</td>
<td>87</td>
</tr>
<tr>
<td>Rulofs, B.</td>
<td>151</td>
</tr>
<tr>
<td>Russell, K.</td>
<td>6</td>
</tr>
<tr>
<td>Rylander, P.</td>
<td>46, 124</td>
</tr>
<tr>
<td>Sacmalioglu, G.</td>
<td>8</td>
</tr>
<tr>
<td>Sahar, F.</td>
<td>187</td>
</tr>
<tr>
<td>Sahin, O.</td>
<td>35</td>
</tr>
<tr>
<td>Sanchez-Mora Moreno, D.</td>
<td>60</td>
</tr>
<tr>
<td>Sandford, R.</td>
<td>197</td>
</tr>
<tr>
<td>Santiago, J.</td>
<td>89</td>
</tr>
<tr>
<td>Sargent, J.</td>
<td>74</td>
</tr>
<tr>
<td>Sarrazin, P.</td>
<td>139</td>
</tr>
<tr>
<td>Saunders, J.</td>
<td>3</td>
</tr>
<tr>
<td>Scanlon, D.</td>
<td>98</td>
</tr>
<tr>
<td>Schaefer, L.</td>
<td>97, 137, 195, 197, 224</td>
</tr>
<tr>
<td>Schembri-Portelli, J.</td>
<td>99</td>
</tr>
<tr>
<td>Schempp, P.</td>
<td>23</td>
</tr>
<tr>
<td>Scheuer, C.</td>
<td>80, 139, 199</td>
</tr>
<tr>
<td>Schirrer, M.</td>
<td>188</td>
</tr>
<tr>
<td>Schnitzler, C.</td>
<td>188</td>
</tr>
<tr>
<td>Seelig, H.</td>
<td>9</td>
</tr>
<tr>
<td>Seghers, J.</td>
<td>100</td>
</tr>
<tr>
<td>Segovia-Domínguez, Y.</td>
<td>60</td>
</tr>
<tr>
<td>Semiz, K.</td>
<td>123</td>
</tr>
<tr>
<td>Serra-Olivares, J.</td>
<td>149</td>
</tr>
<tr>
<td>Seyda, M.</td>
<td>219</td>
</tr>
<tr>
<td>Sheehy, D.</td>
<td>131</td>
</tr>
<tr>
<td>SHY, D.</td>
<td>136, 207</td>
</tr>
<tr>
<td>Silverman, S.</td>
<td>89</td>
</tr>
<tr>
<td>Sinelnikov, O.</td>
<td>30</td>
</tr>
<tr>
<td>Skoog, T.</td>
<td>213</td>
</tr>
<tr>
<td>Skovgaard, T.</td>
<td>135, 186</td>
</tr>
<tr>
<td>Slade, D.</td>
<td>62</td>
</tr>
<tr>
<td>Slingerland, M.</td>
<td>160, 184</td>
</tr>
<tr>
<td>Sobrinho, D.</td>
<td>59</td>
</tr>
<tr>
<td>Sohun, R.</td>
<td>163</td>
</tr>
<tr>
<td>Sollerhed, A.</td>
<td>175</td>
</tr>
<tr>
<td>Son, H.</td>
<td>193, 218</td>
</tr>
<tr>
<td>Sperka, L.</td>
<td>189</td>
</tr>
<tr>
<td>Sproule, J.</td>
<td>55</td>
</tr>
<tr>
<td>Stamm, L.</td>
<td>214</td>
</tr>
<tr>
<td>Starck, J.</td>
<td>30</td>
</tr>
<tr>
<td>Stewart, C.</td>
<td>190</td>
</tr>
<tr>
<td>Stolz, S.</td>
<td>104</td>
</tr>
<tr>
<td>Strobl, H.</td>
<td>51</td>
</tr>
<tr>
<td>Sulz, L.</td>
<td>34, 155</td>
</tr>
<tr>
<td>Sutherland, S.</td>
<td>198</td>
</tr>
<tr>
<td>Svendsen, A.</td>
<td>129</td>
</tr>
<tr>
<td>Sygusch, R.</td>
<td>51, 181, 217</td>
</tr>
<tr>
<td>Sääkslahti, A.</td>
<td>4, 63, 105, 168</td>
</tr>
<tr>
<td>Tak, M.</td>
<td>203</td>
</tr>
<tr>
<td>Templin, T.</td>
<td>36, 48, 103, 171</td>
</tr>
<tr>
<td>Teraoka, E.</td>
<td>81</td>
</tr>
<tr>
<td>Thedin Jakobsson, B.</td>
<td>112</td>
</tr>
<tr>
<td>Thorburn, M.</td>
<td>28, 104</td>
</tr>
<tr>
<td>Tidén, A.</td>
<td>164</td>
</tr>
<tr>
<td>Tittlbach, S.</td>
<td>51</td>
</tr>
<tr>
<td>Tolgfors, B.</td>
<td>29</td>
</tr>
<tr>
<td>Tonna, L.</td>
<td>216</td>
</tr>
<tr>
<td>Treacy, J.</td>
<td>83</td>
</tr>
<tr>
<td>Tsangaridou, N.</td>
<td>117</td>
</tr>
<tr>
<td>Tsuda, E.</td>
<td>132</td>
</tr>
<tr>
<td>Tynjälä, P.</td>
<td>5</td>
</tr>
<tr>
<td>Töpfer, C.</td>
<td>51, 217</td>
</tr>
<tr>
<td>Valenciano, J.</td>
<td>133</td>
</tr>
<tr>
<td>Van Dijk-van Eijck, B.</td>
<td>160</td>
</tr>
<tr>
<td>Van Driel, J.</td>
<td>146</td>
</tr>
<tr>
<td>Van Hoeye, A.</td>
<td>52</td>
</tr>
<tr>
<td>Van Rossum, T.</td>
<td>180</td>
</tr>
<tr>
<td>van Tartwijk, J.</td>
<td>19</td>
</tr>
<tr>
<td>Varea, V.</td>
<td>118</td>
</tr>
<tr>
<td>Vasily, A.</td>
<td>137</td>
</tr>
<tr>
<td>Villamón, M.</td>
<td>133</td>
</tr>
<tr>
<td>Villberg, J.</td>
<td>106</td>
</tr>
<tr>
<td>Vinci, D.</td>
<td>105</td>
</tr>
<tr>
<td>Virtanen, A.</td>
<td>5</td>
</tr>
<tr>
<td>Vollmer, J.</td>
<td>166</td>
</tr>
<tr>
<td>Vos, S.</td>
<td>184</td>
</tr>
<tr>
<td>Wagner, I.</td>
<td>151</td>
</tr>
<tr>
<td>Wainwright, N.</td>
<td>3, 158</td>
</tr>
<tr>
<td>Wallhead, T.</td>
<td>142</td>
</tr>
<tr>
<td>Walton-Fisette, J.</td>
<td>198</td>
</tr>
<tr>
<td>wang, b.</td>
<td>38</td>
</tr>
<tr>
<td>Wang, Y.</td>
<td>11</td>
</tr>
<tr>
<td>Warburton, V.</td>
<td>96</td>
</tr>
<tr>
<td>Ward, P.</td>
<td>100, 132, 191</td>
</tr>
<tr>
<td>Ward, S.</td>
<td>36, 141</td>
</tr>
<tr>
<td>Watson, G.</td>
<td>62</td>
</tr>
<tr>
<td>Weeldenburg, G.</td>
<td>184</td>
</tr>
<tr>
<td>Wei, C.</td>
<td>76</td>
</tr>
<tr>
<td>Author</td>
<td>Page Number</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Wei, F.</td>
<td>136</td>
</tr>
<tr>
<td>Weiß, K.</td>
<td>153</td>
</tr>
<tr>
<td>wen, x.</td>
<td>10</td>
</tr>
<tr>
<td>Whatman, S.</td>
<td>17, 47</td>
</tr>
<tr>
<td>Whewell, E.</td>
<td>72</td>
</tr>
<tr>
<td>Whitehead, A.</td>
<td>94</td>
</tr>
<tr>
<td>Wibowo, J.</td>
<td>108</td>
</tr>
<tr>
<td>Wiesche, D.</td>
<td>65</td>
</tr>
<tr>
<td>Williams, R.</td>
<td>49</td>
</tr>
<tr>
<td>Wong, S.</td>
<td>16</td>
</tr>
<tr>
<td>Wong, U.</td>
<td>222</td>
</tr>
<tr>
<td>Woods, G.</td>
<td>102</td>
</tr>
<tr>
<td>Wright, P.</td>
<td>82, 88</td>
</tr>
<tr>
<td>WU, C.</td>
<td>207</td>
</tr>
<tr>
<td>Yu, H.</td>
<td>145</td>
</tr>
<tr>
<td>Zander, B.</td>
<td>214</td>
</tr>
<tr>
<td>Zhang, J.</td>
<td>78, 144</td>
</tr>
<tr>
<td>Zhong, Y.</td>
<td>38</td>
</tr>
<tr>
<td>Úbeda-Colomer, J.</td>
<td>133</td>
</tr>
</tbody>
</table>