

ULRR

PESS e-Zine vol 3 Feb 2014

Item Type	Other
Authors	Sohun, Rhoda;Kenny, Ian C.
Download date	2026-05-16 17:05:44
Item License	https://creativecommons.org/licenses/by-nc-sa/1.0/
Link to Item	https://hdl.handle.net/10344/3705



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH



Physical Education
and Sport Sciences
University of Limerick

PESS e-Zine

PESS | *e-Zine* | February 2014

3rd Edition



Research

Outreach

Features

News

Head of Department Welcome

On behalf of the Department of Physical Education and Sport Sciences (PESS) I wish to welcome you to the third edition of the PESS e-Zine. My thanks go again to all those involved in the editing and contribution of submissions to the e-Zine.

We mark the retirement of Dr. Deborah Tannehill in this edition. On retiring, Deborah takes on the title of Emeritus Lecturer within PESS which allows us to retain to some extent the passion and expertise that has led to her status on an international front.

The Department hosted the inaugural All-Ireland Postgraduate Conference in Sport Sciences and Physical Education towards the end of January 2014 and we were delighted with the number of postgraduate students who contributed to the programme. It is anticipated that this would be an annual event and positive feedback from the event supports this. You can read more about the Conference in this edition.

PESS will advertise in March 2014 an opportunity for individuals to spend up to eight weeks in PESS gaining experience in one of four research areas, (1) Food for Health, (2) Physical Activity and Health, (3) Sport and Human Performance and (4) Sport Pedagogy. The internship allows individuals an opportunity to work with PESS faculty, explore further their interest and disposition to postgraduate study and / or to consider working in a university setting.

The opportunity to apply for PESS PhD Scholarships will also arise in March 2014. Scholarships are held for up to four years and the recipient is expected to work on a full time basis on their PhD and enroll on the Education and Health Sciences structured PhD programme. Scholarship recipients are also expected to contribute hours to PESS-related tasks (e.g., teaching, demonstrating, organisation of events) for the duration of their scholarship.

I trust you will find the third edition of PESS e-Zine as informative and engaging as previous additions. As always, if you have any interest in collaborating with PESS across areas of teaching and / or research please do not hesitate to contact me at Ann.MacPhail@ul.ie



Dr. Ann MacPhail and Emeritus Lecturer Dr. P.J. Smyth



Note from the Editors

Welcome to the third edition of the 'PESS e-Zine'. This issue looks at the breath of some of the research activities, and events that have happened or are ongoing in the Physical Education and Sport Sciences (PESS) Department since September 2013.

Many thanks to all our contributors to the February 2014 issue. The inaugural All-Ireland Postgraduate Conference in Sport Science and Physical Education is featured in detail in this issue. A special feature on the inductees of the UL Sports Hall of Fame who were graduates/staff of the department of Physical Education and Sport Sciences is also presented. Louise McCagh (World Taekwondo Champion 2013) describes what is like to be an international athlete and final year Sport and Exercise Sciences student in the department. Biomechanics research on total knee replacement and physical education research on communities of practice for teachers is included as well as a feature on a PESS visit to a primary school in Dublin during Science Week. Sport and Exercise Students also take time out to describe their Co-op placements in 2013. The e-Zine also highlights staff and student achievements since the last edition.

We hope you enjoy this edition.

Rhoda Sokun and Ian Kenny



The PESS E-Zine is published by the the Physical Education and Sport Sciences Department. We would be delighted to receive your comments and ideas for future editions.

The opinions and views in the publication are those of the contributors and not necessarily of the PESS Department. While every care is taken to ensure accuracy in the completion of this E-Zine, the PESS department cannot accept responsibility for any errors or omissions or effects arising thereof. However, such errors may be brought to the attention of the Editors. All material is copyright.

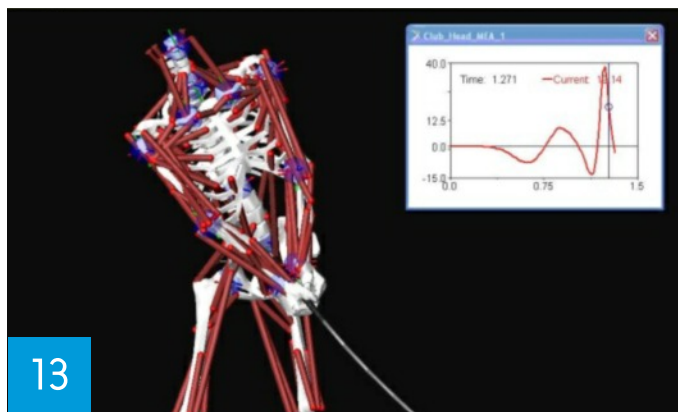


Find us on
Facebook

CONTENTS



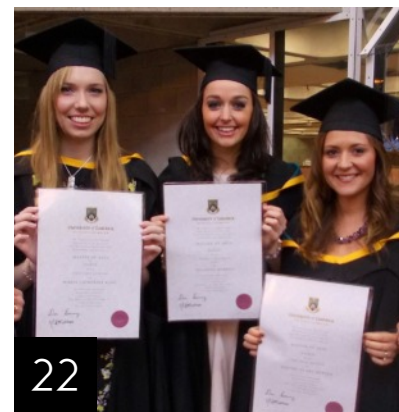
Physical Education & Sport Sciences | e-Zine | Feb 2014



13



4



22

Research

- 7 New Research Staff in PESS join the Food for Health Ireland Research Programme
- 8 C-PAHR Winter Seminar
- 13 Total Knee Replacement and Return to Sport
Dr. Ian Kenny
- 17 Leading by Example: Teacher Educators' Professional Learning through Communities of Practice
Dr. Melissa Parker



6

Outreach Activities

- 6 The Science of Sport - PESS visit to Booterstown Primary School
Dr. Mark Campbell and Ian Sherwin

Features

- 4 Inaugural Postgraduate Conference in Sport Sciences and Physical Education
- 10 Deborah Tannehill - 'An exemplary teacher educator and scholar'
Dr. Ann MacPhail & Prof. Mary O'Sullivan
- 16 Louise McCagh - World Taekwondo Champion and Sport and Exercise Sciences Student
- 14 Sport and Exercise Sciences Co-op Placements 2013
5 Student Experiences
- 18 UL Sport Hall of Fame

News

- 2 Head of Department Welcome
Dr. Ann MacPhail
- 9 'Dance in Schools' Dance Graduate Nicole MacDonald wins funding bid
Brigitte Moody
- 10 Setting Goals and Planning for Success
Dr. Jaimie McMullen and Colleagues
- 21 PESS Student Ball
- 22 PESS Winter Graduations 2014
- 23 PESS Staff, Student & Graduate Achievements
- 24 Publications



16

PESS host the inaugural All Ireland Postgraduate Conference in Sport Sciences and Physical Education in January 2014



All Ireland Postgraduate Conference in Sport Sciences and Physical Education



Physical Education and Pedagogy

Health and Physical Activity

Sports Performance

Friday 24th January



Dr. Mark Lyons



Dr. Ann MacPhail



Ms. Leanne Coll

On Friday 24th January the Department of Physical Education and Sport Sciences hosted the All Ireland Post Graduate Conference in Sport Sciences and Physical Education. The inaugural conference was organised by Dr. Mark Lyons, Dr. Ann MacPhail and Ms. Leanne Coll.

The aim of the one day conference was to give research students the opportunity to present their work to their peers and interested academics in a supportive and collaborative environment. The inaugural conference saw 60 delegates representing 13 different Irish institutions. Delegates undertaking research for a postgraduate qualification presented in the following thematic areas:

- Sports Performance (8 oral presentations and 11 posters presented)
- Physical Activity and Health (8 oral presentations and 11 posters presented)
- Physical Education and Pedagogy (4 oral presentations and 1 poster presented)



Keynote speakers included Dr. Niamh Murphy (Waterford Institute of Technology) who delivered a keynote on "Postgraduate Pathways to Practice and Policy - Reflections on the role of research in sport, health and physical activity" and Professor Alan Nevill (University of Wolverhampton) who delivered a presentation on "Careful preparation is the key to quality postgraduate research"

The conference also offered two workshops for delegates to attend which are discussed in more detail in the feature:

Workshop 1: "Getting Your Research Published"

Workshop 2: "Using Your Mind's Eye - Imagery in Sport, Exercise and Rehabilitation Contexts"

A Short Review of Workshop 1 'Getting your Research Published'

Hannah McManus
(Psychology Coop Student in PESS)



Professor Alan Nevill – the editor in Chief of the Journal of Sports Sciences (University of Wolverhampton) delivered the workshop "Getting Your Research Published" at the inaugural conference. During his lecture, Professor Nevill outlined the essential tips to help researchers getting their research published. In addition the workshop identified some of the common pitfalls authors fall into that lead to their articles being rejected.

Choosing a research question which will have impact is key to getting research published, particularly in the areas of quality of life, sports performance, health, social cohesion and/or education. Secondly, he emphasized the importance of journal selection. Professor Nevill indicated closed access journals as his preferred option for publication of research, instead of open access. In relation to rejection after submission of research for publication, Prof. Neville reminded the audience that if and when rejection occurs, the researcher should read the review comments, take them on board and make changes, and then publish the article to

another journal. In Prof. Neville's opinion, the main causes for articles getting rejected include: submission of article to the wrong journal, articles being too long or too short, poor grammar, article not being proofread, and poor presentation of article.

I found Professor Alan Nevill's workshop extremely informative, interesting and worthwhile. I am now aware of the steps I would need to take in order to increase my likelihood of publication in the future, and to decrease the chances of my research ever getting rejected, if I am to write research articles in the future. Professor Alan Nevill's workshop was well received by the delegates and much discussion was generated at the question and answer section.



Using Your Mind's Eye: Known Knowns & Unknowns



Hannah McCormack
PESS Postgraduate Student

The Psychological Society of Ireland accredited CPD workshop entitled "Using your mind's eye: Known knowns and unknowns" was headed by Dr. Tadhg MacIntyre (PESS), Dr. Alan Ringland (Paralympics Ireland), Dr. Olivia Hurley (IADT), and Dr. Laura McAvinue (Dept. of Psychology University of Limerick). Dr. Mark Campbell (PESS) and Dr. James Matthews (University College Dublin) were additional members of the team that developed the workshop concepts.

A pre-workshop survey evaluated the workshop attendees' perceptions of imagery, their practitioner experience of imagery, their imagery abilities and their individual motives for attending the workshop. Survey results indicated that the majority of those who attended were interested in performance psychology and predominately interested in the role of imagery in sport contexts. Attendees also included those who worked in rehabilitation contexts and the field of physical activity. The key survey findings were presented at the beginning of the ninety minute workshop to the 25 attendees who ranged from undergraduate students, to doctoral candidates to experienced practitioners working in the field.

Imagery is more than just seeing something in your mind's eye or visualising something, which is why the phrase *mental imagery* is preferred to the term *visualisation*. Imagery is now employed in multiple ways and the traditional approach of using mental practice has been superseded by other possible outcomes from imagery use (Guillot & Collet, 2008). Three areas were emphasised: the use of imagery in performance enhancement and performance restoration, the need for individualised interventions and the role of imagery ability assessment. It is hypothesised that imagery is grounded in our experience and consequently related to our expertise. For example, an architect may have an enhanced spatial imagery ability, a gymnast who uses imagery to rehearse a vault may have high motor imagery abilities, and a field game player who may be focused on simulating a dynamic open-skill, may require heightened abilities across a range of abilities. When an expert performer simulates a skill through imagery, the duration of that image will correspond to the time to execute the movement-the so-called *mental travel effect*.

Consequently, it was suggested that the correlation between the simulation time and motor execution time is an effective measure of imagery quality. Furthermore, the traditional recommendation of employing all your senses during imagery was called into question as the cognitive load or mental effort may diminish the accuracy of the imagery in the most pertinent senses (e.g. motor imagery). While imagery isn't constrained in the same way as physical practice, it may still be fatiguing-a possible contraindication being the use of imagery for long durations. Using mental imagery in order to practice a skill or movement can be exhausting; the areas of the brain are activated in the same way (the information is processed in the same way) as physically executing the skill or movement. The overlap between action observation

(watching someone perform a skill) and simulation (imagining a skill) are interrelated processes (Vogt et al., 2013).

Dr. Laura McAvinue, a cognitive neuroscientist at UL, discussed a case study on the use of motor imagery to reduce phantom limb pain (McAvinue & Robertson, 2011). Dr. McAvinue introduced us to the idea that although the body is physically damaged the neurons in the brain are unharmed, and lie idle. With no physical limb to activate, they may begin to randomly fire causing different sensations from a tickle or an itch, to an ache or stabbing pain in a limb that no longer exists. Rather than allow these neurons to remain idle, Dr. McAvinue employed motor imagery as an intervention and taught her participants the skills to activate the mind. Motor imagery activates similar pathways to the actual movement, and thus the idle neurons would no longer be idle and as a result, the phantom limb pain could be alleviated.



Dr McAvinue found contrasting results in her study, with some participants reporting a decrease in phantom limb pain and some reporting no affect from the treatment. What this study showed us was that there is potentially a way to recover from injury and manage pain by using mental imagery. The brain is tricked into thinking it is using a limb that is immobile or no longer there. What this means is that athletes can physically recover without having to put excess strain or stress on an injured limb. They will hopefully not lose the ability that they had pre injury and the mind stays focused on the task of recovery. Return to play is a much smoother process and the gap between physical readiness and psychological readiness can be reduced.

In the workshop we were presented with 3 cases studies. They included an international female rugby player (out-half); a 20 year old academy rugby player who had injured his ACL and was in recovery, and a 77 year old female who has suffered a stroke. All case studies challenged us to find the optimum use of mental imagery for the individual in question. As with every aspect of sport science support, it is not a one size fits all scenario. The timing and use of imagery will differ depending on the needs of the individual. The senses employed and the emotions evoked will also differ. A recovering athlete will utilise the sensations within the injured limb, mental imagery can decrease anxiety, aid intrinsic motivation and increase self-confidence in both the injured and non-injured athlete according to research by Guillot and Collet (2008).

Mental imagery just like any other skill needs to be practiced and developed. Instructing an athlete to change the way they think, how they think and when they think is like changing any other skill: it will take time getting used to it. During that time it is not unreasonable to expect for their performance to suffer, but once the skill has been honed through practice and implementation, imagery can improve performance, psychological well-being and aid recovery. Beyond the lessons learnt, connections were made across the community of practice and the images of this workshop will resonate with practitioners and researchers long into the future. **The workshop was based upon an expert statement which was funded by the British Association of Sport and Exercise Sciences (BASES).**

- <http://www.bases.org.uk/Use-of-Mental-Imagery-in-Sport-Exercise-and-Rehabilitation-Contexts>
- Guillot, A. & Collet, C. (2008). Construction of the motor imagery integrative model in sport: A review and theoretical investigation of motor imagery use. *International Review of Sport and Exercise Psychology*, 1 (1), 31-44.
- McAvinue, L. & Robertson, I. (20). Individual differences in response to phantom limb movement therapy. *Disability and Rehabilitation*, 33(23-24), 2186-2195.
- Vogt, S., Di Rienzo, F., Collet, C., Collins, A. & Guillot, A. (2013). Multiple roles of motor imagery during action observation. *Frontiers in Human Neuroscience*, 7, 807.

"The Science of Sport"

The Department of Physical Education and Sport Sciences take part in Science Week in a prominent Dublin School

Dr. Mark Campbell, Ian Sherwin
Department of Physical Education and Sport Sciences



Willow Park School is based in Booterstown, Co. Dublin and is a Primary School with a student population of approximately 650 boys. The parents association or WPA is heavily involved in the school and arranges various events and weeks during the school year to complement the existing curriculum. Science week, runs simultaneously to National Science week in November each year and is one of the biggest events undertaken by the WPA. The immense organisation of the week involves all of 6th form and their parents.



Pupils' reaction times are assessed on the BATAK stations

SCIENCE WEEK 2013

Science Week involves learning about Science in all its forms and its aim is to be fun and interactive for the pupils. The school's theme for the Science Week 2013 was 'How the Ordinary in our lives can be Xtraordinary'. The Human body, guide dogs and the Garda Mounted Unit featured prominently and for the first time since the event took on its high profile in the school the WPA included 'science in the sporting context'.

Willow Park School is a feeder school to Blackrock College with a combined attendance of 1800 boys with an emphasis on many sports including rugby, golf, cricket, swimming, football and tennis. There is also an emphasis on science and an opportunity to demonstrate the expertise of the Physical Education and Sport Sciences (PESS) department in UL was not to be missed. We were delighted to accept the invitation to highlight the research, teaching and various disciplines on offer in the University of Limerick.

MINI SPORTS PERFORMANCE EXHIBITION CENTRE

A variety of equipment was transported from the labs in PESS to create a mini exhibition centre in the school. Three stations were installed around the substantial gym with 5 'tests' for the pupils to sample. The exhibits at each station were both scientifically and practically explained to the boys so that they could equate each test to where it fits into sport. It's probably not disingenuous to say that 'the how' and 'the why' may have passed some of them by such was the enthusiasm to try everything and outdo their friends!



Pupils are assessed on the counter-movement jump and 10m Speed Tests

The pupils were rotated through the gym every 30 minutes, spending around 10 minutes at each station. Niamh Whelan (PhD Researcher) and Nuala O'Donovan (4th Yr SES) supervised the Counter movement jump and 10m Speed test exhibits. The counter movement jump was assessed using the Optojump and details of the scores were given to the pupils after their test. Background research was carried out

by the team to ascertain results for Elite sportsmen and some of the school's high profile past pupils so that the current students could compare their scores.

Hannah McCormack (PhD Researcher) and Ian Sherwin (PhD Researcher) entertained the more than willing subjects at two BATAK stations, 'upright' using a ten light reaction programme and the table top 12-light version. Some great reaction skills and bilateral dexterity were displayed by the pupils as they underwent the 30-second trials and immediately re-joined the end of the lengthening queues in an effort to better their score at the next trial.

There was no doubt about the most popular test, the golf putting test. Using SAMPutt technology software the movement variability of the putter was assessed for each stroke of the club as the boys attempted a 2.43m (8ft) putt on a practice putting green. Dr Mark Campbell was more than impressed by the metronomic stroke of one of the boys who although still in primary school is already playing off a single-figure handicap!



Pupils take part in the golf putting test (left) and the BATAK reaction time test (right)

Such was the popularity of the PESS visit, the exhibition over ran by 90 minutes and more than 250 pupils got a chance to experience the tests. The feedback from the teachers and WPA has been hugely positive *"in terms of interest, diversity and sheer entertainment.....your Sport Science experiments were undoubtedly the highlight of the week"*.

The feedback continued saying *".....Willow provides sport for every boy in the school, and is always looking to make it relevant for the talented children and importantly not so talented boys and so the teachers were delighted to have someone with your expertise at school"*.

We hope that this will become an annual event for the PESS department and cultivate a long and fruitful relationship with the school.

New Research Staff Join the Food for Health Ireland (FHI) Research Programme at the Department of Physical Education and Sport Sciences

Five new research staff have recently joined the department as part of phase 2 of Food for Health Ireland's (FHI) research programme. The researchers, Katie Hughes, Robert Davies, Beate Gillson, Alexandra Cremona and Dr. Orla Power work on different aspects of the FHI research programme. FHI is a research programme funded by Enterprise Ireland and is an academic-industrial collaboration. There are 7 public research organisations (UCC, UCD, NUIG, Maynooth, DCU, UL, Teagasc) and 5 industry partners (Kerry, Dairygold, Glanbia, Carbery, Irish Dairy Cooperative).

Within UL there are two main areas of research, healthy aging and performance nutrition (PESS) and milk mining (Life Sciences). The healthy aging and performance nutrition work programme is led by four principal investigators - Prof. Phil Jakeman and Dr Brian Carson (PESS), Dr Pat Kiely and Prof. Sean Arkins (Life Sciences). The University of Limerick has been awarded €3million in Phase 2 of FHI Ireland's research programme. The overall objective of the research is to design milk based nutrient formulations to:

- Maintain lean tissue mass and promote healthy aging
- Improve sports performance (reduce oxidative stress, improve muscle function and immune competence)
- Conduct human trials in order to provide scientific evidence to substantiate health claims associated with the products

The Healthy Aging and Performance Nutrition Health pillar requires a multidisciplinary approach and is guided under the direction of Prof. Phil Jakeman (lead Principal Investigator)

Katie Hughes – Research Assistant Physiotherapist

Katie is a graduate of UCD with a BSc and MSc in physiotherapy. Katie has worked clinically in both the geriatric and sports populations and continues to work clinically with a musculo-skeletal population. Within the FHI programme Katie will undertake analysis of body composition, muscle and activity of daily living function. In addition Katie will be involved in the delivery of the exercise interventions. Katie's principal research interest is the effect of exercise interventions for chronic medical conditions and long-term patient adherence to exercise interventions.



Robert Davies – Research Assistant Exercise Physiology

Rob is a graduate of Bangor University, North Wales with a BSc in Sports Science and an MRes Exercise Physiology. In the past Rob has worked as a research statistics tutor and strength and conditioning coach. Within the FHI programme Rob will undertake physiological measurement of human performance, focusing on optimal post-exercise recovery, immunity and augmentation of the adaptive processes stimulated through chronic exercise. Rob's principal research interest is exercise and manipulation of the



systems that regulate the physiological processes that underpin the adaptive response and consequently athletic performance.

Beate Gillson - Research Assistant Phlebotomy



Beate has a diploma in general nursing with specialist training in ENT and Oncology nursing. Beate has significant clinical experience having previously worked in University Hospital Limerick, Mater Private and in Germany. Within the FHI programme Beate will collect blood samples and perform DXA scans on participants. In addition, Beate will provide mentoring and supervision to new staff in the area of venepuncture.

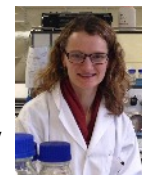
Alexandra Cremona – Research Assistant Nutrition & Dietetics/Performance Nutrition

Alexandra is a graduate of Strathclyde University with a BSc in Sports and Exercise Science and PGD in Dietetics from Glasgow Caledonian University. Within the FHI research programme Alexandra will be undertaking research to develop novel nutrient formulas to support immunity and performance, exercise recovery and post-exercise immunity. She will work towards extending the knowledge in the field of dietary antioxidant intake reference base to the athletic. Alexandra's principal research interests lie in lifestyle interventions in consort with nutrient product development as a means of exploiting anthropometrics and enhancing nutritional status to advance human health and sporting excellence.



Dr. Orla Power – Post Doctoral Researcher

Orla is a graduate of the University of Limerick, with a BSc in Biochemistry, MSc in Nutritional Biochemistry and a PhD in Food Science and Health. In the past Orla has worked in industry and in a government funded food research centre. Within the FHI research programme Orla will be involved in:



- Development and evaluation of novel nutrient formulations to support healthy aging and human performance;
- Evaluate the in vitro and in vivo bioactivity of novel peptides and related nutrients in the regulation of human skeletal muscle metabolism at rest, during and in the recovery from exercise.

Orla's principal research interest is the bioactive properties of milk peptides. She is particularly interested in understanding the relationship between in vitro bioactivities of peptides and the translation of these bioactive properties in humans.



"State of the Art in Physical Activity Measurement"

A Winter Seminar: Decemember 2013

The Centre for Physical Activity and Health Research (C-PAHR), based at the University of Limerick, conducts multidisciplinary and translational research in physical activity and health. The director of C-PAHR is Professor Alan Donnelly (PESS Department).



The centre's mission is to improve health, well-being and quality of life in individuals via the application of knowledge of physical activity, movement and health for optimum daily living, occupation and sport. C-PAHR aims to strategically enhance an existing network of successful partnerships between researchers from a range of disciplines who work within the domain of movement and health.

The Centre is a collaboration of researchers from physiology, biomechanics, sports and exercise science, physiotherapy, occupational therapy, psychology, nursing and midwifery, medicine, electronic engineering and ergonomics. The strength of the centre will be its multidisciplinary approach, linking health science researchers with technology focussed researchers to create an effective platform for research collaboration and productivity. The Centre has shared interests and links with NUI Galway and other research centres and units within the University of Limerick (PE PAYS, CSI-R, Centre for Interventions in Infection, Inflammation & Immunity (4i), and the Biomechanics Research Unit).

The Centre has identified three core areas of research:

- **Movement and Technology**
- **Movement for Function**
- **Physical Activity for Health across the lifespan**

In December 2013, C-PAHR hosted a winter seminar on "State of the art in physical activity measurement". Professor Alan Donnelly introduced the programme which included:

Current Issues in Physical Activity Assessment: Total Volume and Harmonizing Across Studies

Prof David Bassett, University of Tennessee, Knoxville, Tennessee, USA.

Professor Bassett presented the case of examining 'total volume' of physical activity instead of focusing on the amount of time accumulated in 'moderate to vigorous' physical activity. Total activity counts (TAC), a proxy total volume of physical activity energy expenditure (PAEE) offers health benefits to the individual.

The current public health recommendations for physical activity do not capture 'light physical activity' which when accumulated over the duration of a day can have a significant health benefit.



Measurement and quantification of physical behaviour from the perspective of Medicine: framework and research examples

Professor Hans Bussman, Erasmus MC University Medical Centre, Rotterdam, The Netherlands.

Professor Bussman discussed the issues of recording activity levels in specific clinical populations, including people with Spina Bifida, cerebral Palsy and Spinal Cord Injury. His presentation discussed the limitations of self-reported activity measurement, and the application of activity measurement in interventions to increase physical activity. The difference between measurement of specific activities such as walking and more generic activity measurement via accelerometry counts was also reviewed.



Event-based analysis of free-living Physical Behaviours

Professor Malcolm Granat, University of Salford, Manchester, UK.

Examination of free-living physical activities is important in understanding how physical activity and also sedentary behaviours impact on health. Quantification of these behaviours is important in determining how interventions might modify free-living behaviour to enhance health. Professor Granat presented a Physical Behaviour Model, which explained conceptual approaches to body motion. Through the use of accelerometers, movement data and activities can be classified. The volumes and patterns of these activities are a measure of human physical behaviour. With the integration of geographical information system (GIS) data and global positioning system (GPS) data, with accelerometer data, researchers can become more informed about physical behaviour of the individual, households and the community.



(L-R) Dr. John Nelson, Prof. Alan Donnelly, Prof. David Bassett, Prof. Hans Bussman, Prof. Malcom Granat, Dr. Susan Coote, Dr. Pepijn Van de Ven

The University of Limerick will be the host for the June 2015 "International Conference on Ambulatory Monitoring of Physical Activity and Movement"

www.ul.ie/cpahr

'Dance in Schools'

Dance Graduate Nicole MacDonald Wins Funding Bid

Brigitte Moody
Department of Physical Education and Sport Sciences

Nicole MacDonald is one of five graduates from the department of Physical Education and Sport Sciences (PESS) to receive her Masters in Dance award at the recent Winter Conferring Ceremony from the Faculty of Education and Health Sciences.

The 2 year part-time taught masters programme has been running in PESS for 16 years and attracts a wide range of people with a passion for dance and sharing it with others.

Its alumni includes officers from the Arts Council of Ireland, PESS BSc Physical Education graduates, primary and post primary teachers, professional dancers and those specialising in working with people with disabilities. In the last 6 years alone, twenty six students have successfully completed the programme and graduated with the post graduate degree.

Nicole follows a pattern of graduates to receive funding to promote dance in schools based on her Masters dissertation research. *Dance in Schools* is a new initiative funded by the Minister for Arts, Heritage and Gaeltacht, Jimmy Deenihan T.D. with sponsorship from Allianz. It is designed to support dance professionals going into schools and delivering dance as part of the Physical Education curriculum aiming to encourage young people to take part in and enjoy physical activity.

Nicole's application for this funding stood out from all the others because it was based on Master's level research. In short, as the promoting organisation for the project, 'Monica Loughman Ballet', said: 'It represents a starting point and a solution'. The Minister presented Nicole with her funding award at a ceremony in the INEC in December 2013. *Dance in Schools* is already rolled out in 6 schools and the hope is it will become a national programme.

Nicole brings a great deal of professional dance experience to her work with young people. She is the director Steptacular Performing Arts, in Dublin; is head of dance for Bull Alley Theatre Training College and the faculty at Sallynoggin College of Further Education.

Speaking about her Masters research Nicole says: *"My experience as a qualified teacher of dance in the private sector was the driving force behind the design and implementation of a dance programme for young adolescents as part of their physical education programme. Recently completing a Masters in Dance with Brigitte Moody, the programme director for the Masters in Dance in PESS, enabled me to develop my professional skills and teaching methods and learn to adapt approaches to teaching dance in a way that*



would suit me and my students. It also led me to recognise how important dance can be as part of second level education."

The dance programme designed by Nicole as part of her dissertation was a partnership between her and the students, recruited at Firhouse Community College, Dublin. This partnership enabled the cultural influences and interests of the students to be represented in the dance lesson content, allowing them to become co-creators of their dance programme and active agents in their own learning. It also led to a design that was age appropriate, physically challenging and which promoted a more meaningful experience for everyone taking part. A six week dance programme for 4th and 5th year students was delivered as part of their Physical Education curriculum, combining core strength and physical flexibility with improvisation and creativity.

Geraldine Murphy, the Head of Physical Education at Firhouse Community College, spoke of Nicole's research in the college: *"Our students loved the course and had the opportunity during their PE class to acquire new skills in a non-competitive environment. The dance programme added great value on top of the schools usual activities. It's an extremely welcome development."*

Graduate Diploma/MA Dance

This is a two year part time postgraduate programme designed to offer students the opportunity to continue to explore practical and theoretical aspects of dance. The strengths of the course are to encourage reflection on values and beliefs about dance, revisit choreographic practices, develop a somatic approach to movement and build confidence for planning and delivering dance workshops using innovative dance pedagogical approaches. A feature of the programme is an opportunity to develop knowledge and skills in dance for children or adults with disabilities. There is an option to exit the course at the end of year 1 with a Graduate Diploma in Dance (60 ECTS credits). Progression to Masters in year 2 (60 ECTS credits) is a research thesis. The programme is particularly suited to teachers, community dance artists and professional dancers.

Contact

Department: Physical Education and Sport Sciences.
Course Director: Ms. Brigitte Moody.
Tel : 353-61-202807
Email : brigitte.moody@ul.ie



Deborah Tannehill

An Exemplary Teacher Educator and Scholar

Dr. Ann MacPhail
Department of Physical Education and Sport Sciences

Prof. Mary O'Sullivan
Faculty of Education and Health Sciences



After eight years in the Department of Physical Education and Sport Sciences at UL, and a lifetime of contributing to teaching physical education in schools, coaching athletes and physical education teacher education, Deborah Tannehill retired in December 2013. Fortunately for the department, Deborah takes up the position of Emeritus Senior Lecturer on her retirement.

Deborah's research and scholarship over 35 years focused on contributing to the scholarship of teaching in physical education (be it curriculum models, assessment strategies) and teacher education (mentoring of cooperating teachers, communities of practice, and building partnerships among teachers, teacher educators and pre-service students). She connects with teachers and pre-service teachers in ways that allow them to grow and deepen their interest in the discipline and in providing students with quality school physical education experiences. She has done this across significant cultural boundaries and national states and continues to motivate and inspire members of the physical education



Professor Anne Flintoff presenting Deborah with a memento to mark her BERA PESP presentation as the 2013 Scholar Lecturer Community.

Deborah achieved her undergraduate degree in Physical Education from Washington State University (1970), her Masters in Guidance Counselling from Seattle University (1975) and her PhD in Teacher Education from the University of Idaho (1987). Deborah was a physical education teacher for ten years, a university coach for six years and a physical education teacher educator for 26 years. The latter took her to Ohio State University (1987-1998), Pacific Lutheran University (1999-2005) and University of Limerick (2005-2013).

Her contribution and dedication to the physical education profession has been unfaltering throughout her career. While based in the US she held positions as the President and Vice President of Washington American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), was a member of the Executive Board of North West District of AAHPERD and a Cabinet Member and Publications Coordinator of the National Association for Sport and Physical Education (NASPE).



Deborah Tannehill at Deniz Hünük's PhD viva with Prof. Dr. Levent Ince

Deborah was Co-Editor then Editor of the *Journal of Teaching in Physical Education* (2000-2004) and served on the Editorial Board of the same journal. She was the Feature Editor and Editorial Board member for *Journal of Physical Education, Recreation and Dance* (JOPERD) (2000-2008) and has served on the Editorial Board of *The Physical Educator* and *Quest*. Deborah was also the Taskforce Chair for NASPE Beginning Teacher Standards (1991-1995).

On arriving in Ireland Deborah very quickly supported the work of the Physical Education Association of Ireland and became Co-Director of the Physical Education, Physical Activity and Youth Sport Research Centre (PE-PAYS). Her investment of time and energy with practicing physical education teachers and her ability to connect with the profession has resulted in her being highly respected and sought as someone who can encourage and sustain communities of practicing physical education teachers and teacher educators.



Deborah Tannehill presenting at the Physical Education Association of Ireland Conference.

Deborah continues to be invited to deliver Keynotes throughout the world and delivered the highly distinguished Curriculum and Instruction Academy Lecture at AAPHERD in 2009 and gave the 2013 Scholar Lecturer to the British Educational Research Association Physical Education and Sport Pedagogy Special Interest Group.

Deborah has accumulated numerous awards including the University Professor of the Year (2003), Joy of Effort Award, AAHPERD (2004), and the Amy Homans Scholar Lecture, NAPEK in Higher Education (2005). It is perhaps the criteria for the Joy of Effort reward that most accurately conveys what Deborah has epitomized throughout her career,

'It is in recognition of those persons who by performance and style, have personified the concept that the effort made to enrich the goals and objectives of physical education and sport is a labor of love, inspired by commitment and dedication'.

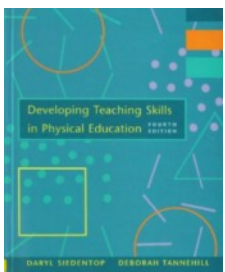
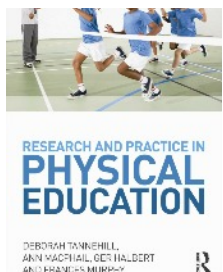
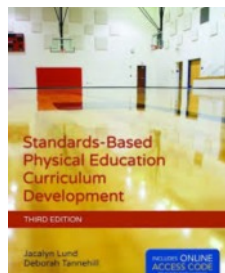
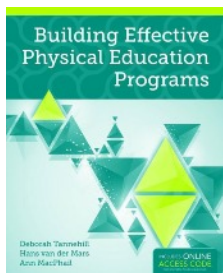
Deborah is an exemplary teacher educator and her passion is still evident in her day to day practices with pre-service teachers and with teachers. Working with Deborah is easy in the sense that anything and everything she is asked to do she completes without fail, the glass is always half full, she cares passionately about providing students with a meaningful, relevant and worthwhile experience, she freely provides support and guidance to all levels of staff and faculty who approach her and she can find humour in instance where others are not sure if it is appropriate to laugh.



Deborah Tannehill with Michelle Dillon at her PhD graduation ceremony

Deborah's commitment to the teaching of physical education in schools and to physical education teacher education is conveyed in the four books that she has co-authored;

- *Building Effective Physical Education Programs* (2014)
- *Standards Based Curriculum Development in Physical Education* (in press – 3rd edition),
- *Research and Practice in Physical Education* (2013)
- *Developing Teaching Skills in Physical Education* (1999 – 4th edition).



Deborah has written 22 book chapters and 42 peer-reviewed articles. An interesting statistic and testimony to her continuing contribution to the field over the years is that she had six refereed journal articles published in 2012 alone!

In inviting Deborah's past colleagues across the globe to provide a statement in response to her retirement, numerous people chose to focus on the impact Deborah has had on them and the profession;

"I just wanted to send Deborah my regards and thank her for her inspiration, support, and commitment to ensuring PETE is undefined by people who care about teaching, learning and learners, and as a role model for not allowing practice and pedagogy in our field to be consumed by theoretical jargon at the expense of what matters most."

Kirsten Petrie, University of Waikato, NZ

"Thank you for the many gracious and encouraging comments and actions you've sent my way over the years. You're a genuine hero and role model for me."

Sarah Doolittle, Adelphi University, USA

"I have to thank you for all the great articles, books and advice you shared with physical educators like me over the years. The Franklin County Physical Education Teachers group you and your colleagues started to encourage collaboration and share best practices across districts, helped facilitate valuable friendships and working relationships that are still in place today."

Diane Barnes, Physical Education teacher, Ohio

Deborah's involvement in teacher education will be a significant loss not only to PESS and UL but to Ireland and internationally. For so long Deborah has been respected as one of the most prominent true physical education teacher educators. Her legacy is evident not only in the people who she has positively affected but also in her writings on how and what it means to be an effective, caring and appropriately critical teacher. As Emeritus Senior Lecturer in PESS she has agreed to lead the Sport Pedagogy research theme within the department and will avail of the numerous requests for her to present and work with other universities. Deborah is a truly caring, committed and unique teacher and scholar in physical education teacher education.



Deborah Tannehill is presented with a framed caricature of herself, drawn by PESS student Seán Ryan at her retirement function.

Setting Goals and Planning for Success

Dr. Jaimie McMullen & Dr. Tadhg MacIntyre
Hannah McCormack & Ian Sherwin

Department of Physical Education and Sport Sciences

This spring two faculty members and two postdoctoral students from the department of Physical Education and Sport Sciences have enrolled to take modules as part of the Centre for Teaching and Learning's (CTL) *Specialist Diploma in Teaching, Learning and Scholarship*. The Specialist Diploma was developed to help support the professional activities of early career academics and doctoral candidates and includes several learning outcomes relative to teaching, learning and scholarship respectively.

Dr. Tadhg MacIntyre (lecturer in sport psychology) and Dr. Jaimie McMullen (lecturer in physical education), have enrolled to complete the Specialist Diploma for career development and as continued professional development. While both already hold doctorates in their respective fields they both believe in the value of lifelong learning. Hannah McCormack and Ian Sherwin are postgraduate students and as part of the Faculty of Education and Health Sciences' structured Doctoral Programme (sPhD) students are requested to elect specialist modules to the value of 18 credits. It is recommended that the modules taken will enhance the learning outcomes of their own PhD. Hannah and Ian have elected to enrol in two of the modules offered through the Specialist Diploma – 'Research Planning and Preparation' and 'Scholarly Presentation and Dialogue in Research and Academic Writing.' Another postdoctoral PESS student, Michelle Norris, will also be joining the group for one module.

Therefore as a group we have decided to provide some insight into our reasons for enrolling on the course and our experience of the first module to date and what we hope to achieve at its conclusion.

Hannah McCormack

"I have to conduct research so I may as well learn how to plan and prepare for it. A nonchalant approach definitely, but what I got out of it will be invaluable to me for the duration of my academic career. The module gave me a unique insight into the world of academia from the perspective of people who have all been through the journey. I learned that the issues around planning, research and writing are faced by nearly everyone, irrespective of the stage of their academic career. Finding the time, creating the space and protecting these from both internal and external distraction; setting goals for writing; planning the process; choosing the right journal; developing a thick skin and immersing myself into a productive writing environment will all be instrumental to me successfully publishing articles."



Ian Sherwin

"Despite some investigation before deciding to take this module as an elective for my structured PhD I wasn't certain what to expect or how I'd use the information. It became evident very quickly. Writing research is critical and it's dissemination even more so. Devising a plan with a clear outcome and a specific strategy for each piece will facilitate a smoother writing process. As I've only just started my PhD I believed I didn't have much to write about,



however after completing a peer-led writing consultation I have short, medium and long term writing goals beginning immediately by completing a long overdue paper. Planning a time to write, protecting that time and prioritising deadlines will shape my diary for the foreseeable future. I'm going to enjoy it!"

Tadhg MacIntyre

Reflections on a kaleidoscope of images.

"Academic writing is not typically imaginative nor emotional but the writing process is all of these. This module facilitated by Dr. Patricia Mannix McNamara took us on a journey through the pathway of publishing research. It progresses from the inception of an idea through the dissemination process, to the translation of that output into change on a participant, practice, policy or public level. Ideally all research should firstly inform the participants as well as making an impact at other levels. The sepia coloured image of research as a voluminous tome gathering dust is one we should discard. Research has a pulse and requires emotional engagement to build connectivity with our collaborators in the first instance."



"Emotional engagement was a central theme of the workshop and excellent facilitation meant we were all prodded, provoked and probed to engage with our peers. The reflective format enabled candid engagement and challenges we faced were mirrored in many participants' experiences. Insights about the creativity required for the inception of our research, reflections on the energy and motivation to pursue it and, finally, discourse on the resilience required to rebound from set-backs in the review process, above all, reminded us all that research is an emotion laden process."

Jaimie McMullen

"I have to admit that I was hesitant to enrol in the *Specialist Diploma* because I initially saw it as one more 'thing' to add to my already long list of to-do's. After completing the first module I can see that this course will be instrumental to help me accomplish my professional research and writing goals. I have already recognised several weaknesses and barriers that exist in the way I structure my writing/research time and immediately made adjustments. It was comforting to hear about the struggles and triumphs of other early career academics because I now understand that I am not alone. I really feel that the other students in the module will be a great support to me as I try to achieve my writing goals. This module has provided me with a fresh spark (that I needed) to get going on several projects that have been sitting on my desk for far too long. I have set a goal to have three papers submitted to journals for review by the end of the spring semester. I hope that I can report in the next issue of the e-zine that all or some of those have been accepted for publication! In the words of Henry Ford - *Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young.*"



Total Knee Replacement and Return to Sport

Dr. Ian Kenny Department of Physical Education and Sport Sciences

Mr. Pauraic Murray and Ms Jane Campbell: Galway Clinic

The rate of Total Knee Replacement (TKR) is increasing globally as a result of population growth, clinical success of joint replacement and changing demographic patterns. 40% of 40 year olds will have radiographic evidence of knee osteoarthritis with approximately half of these presenting with symptoms. Between 2005 and 2030, the prevalence of primary and revision TKR procedures in the United States is predicted to increase 673% and 601% respectively. Based on VHI statistics, the number of Irish TKRs has increased by 173.4% between 1999 and 2009. There were 4,300 Total Knee Replacements in Ireland in 2011, 1900 public, 2400 private. Interestingly 14% of patients were “dissatisfied” (Noble et al., 2005) and 18.2% were not satisfied (Baker et al., 2007) following TKR. With over 150 knee replacement designs available Orthopaedic Surgeons have large choice of knee implants. Published research assessing this range of knee implants offers little help to the surgeons as most outcome research is short-term, non-comparative and ignores the surgeon’s case-mix.

Since 2010 Ian Kenny, Galway Clinic consultant orthopaedic surgeon Paraic Murray and research physiotherapist Jane Campbell have been investigating the effects of different knee surgery on rehabilitation and knee movement for the likes of walking, stair climbing and the golf swing (Kenny et al., 2012; Kenny et al., 2013). Figure 1 shows the development of knee replacement and full body human models and Figure 2 shows some of the variation in knee movement that knee surgery patients showed, even after six months of full rehabilitation.

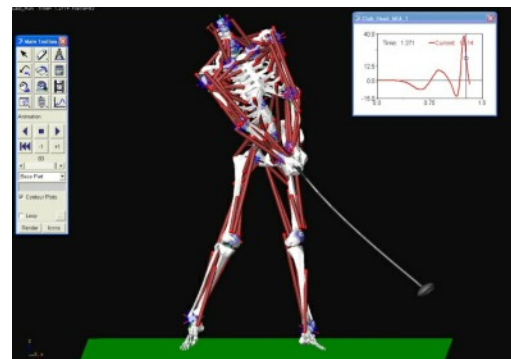
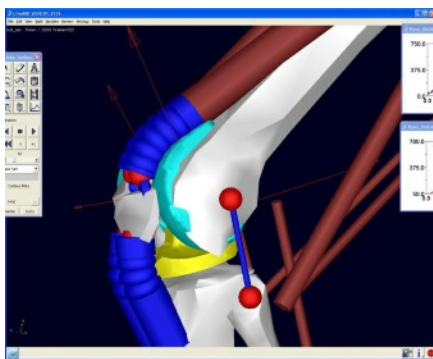


Figure 1. Knee Model and Golfer Models

One of the recent advancements in the field is that of ‘Kinematically Aligned Total Knee Replacement’ (kTKR) which involves MRI scanning and three-dimensional (3D) modelling of a patient’s knee to determine their unique TKR alignment. The basis behind this technique is that each patient has their own natural lower leg alignment and plane of movement which might be a degree or two different from the next person. This work in progress suggests that bespoke development of knee replacement devices for a patient’s own knee alignment might result in an outcome that is more similar to their pre-operative knee structure. The most recent study between PESS and the Galway Clinic is comparing integrated three-dimensional (3D) kinematics (movement patterns) and in vivo kinetics (muscle electrical activity EMG) of the knee of daily tasks of walking, golf and stair-climbing for traditional knee replacements, new kinematically aligned knee replacements and healthy matched controls, over a three year period.

Even after surgery, restoration of unimpaired functional ability after Total Knee Replacement is in the minority, with only 33% of patients reporting no functional limitations post TKR (Wright et al., 2004). Medial leg muscle activation is currently considered to be the single most important factor in successful return to daily living tasks following TKR (Barker et al., 2012). Medial leg muscle activation primarily assists with knee stability and knee extension. While the theory behind kinematically aligned TKR (kTKR) suggests that implants tailored with bone alignment cuts for a particular patient’s femoro-tibial orthogonal orientation will produce a flexion-extension plane better matched to their pre-operative plane, the mechanisms for kTKR recovery and return to normal function have not been investigated.

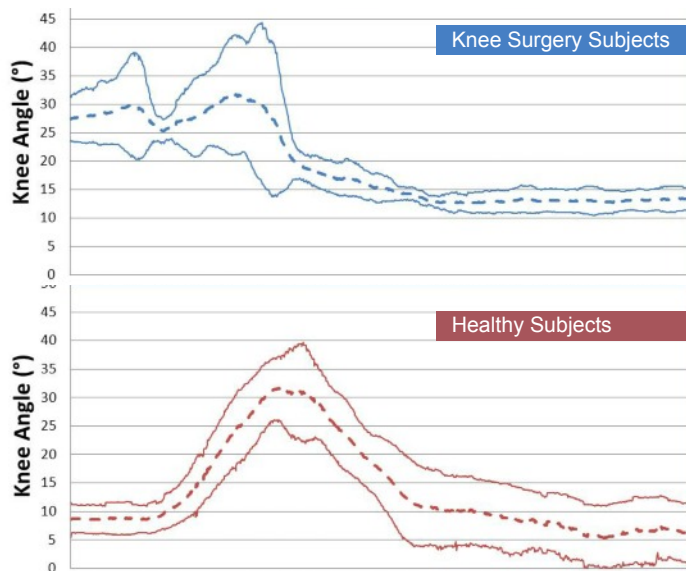


Figure 2: Mean ensemble knee flexion for all subjects showing the variable movement of knee surgery subjects (top) compared to healthy subjects (bottom) for golf

Ian Kenny joined the Physical Education and Sport Sciences department in 2007. Ian previously worked for the R&A, St. Andrews while completing his PhD, then lectured at the University of Ulster Jordanstown. He teaches biomechanics, functional anatomy and kinesiology and within the PESS Biomechanics Research Unit researches in his specialist area of applied sports biomechanics and musculoskeletal modelling.



A Look at the Cooperative Experience in Science

In 2013, 55 Sport and Exercise Sciences students went on coop, with eight students opting for conditioning with elite clubs and teams, Special Olympics, research in academic departments, placements (Australia, New Zealand, USA and South Africa), 5 placements in the UK and the rest on the Cooperative Education Experience in 2013- the skills they used, the rewarding aspects of the placement and their future.

Nuala O' Donovan

Co-op Placement: Richmond Football Club, Melbourne, Australia and Special Olympics Ireland, Eastern Region.

The typical day

A typical training day started at 8.30am. I set up 24 GPS units and gave them to selected players, as instructed by management. Once training started I monitored training, collected rate of perceived exertions for each drill and kept the Elite Performance manager informed of the distance covered in training. Post training I uploaded all data, tidied away all GPS equipment and prepared a GPS report on training which was used by management and other sport science/medical staff to monitor players' performance and training load. On game days I inserted GPS in all the jerseys. A typical non-training day was generally shorter and I worked on projects, as requested by the head coach, such as looking for correlation between length of pre-season training and placing in the championship or trends in GPS game data and training data. I was also involved in some cogstate testing and performance testing in the gym.

A Typical Day with Special Olympics Ireland was spent in the office, organising and planning events (Coaches Forum), booking venues, working on presentations and assisting Regional Development Officers for Sport.

What skills did you use most? Computer skills as well as some biomechanics while with Richmond. Special Olympics introduced me to working as part of an organisation and communication skills were highly important.

Most rewarding aspect of your co-op? The most rewarding aspect with Richmond was seeing the work I did being put to use by management and other members of the sport science staff. The most rewarding part of working with Special Olympics was when an event that I helped organise went off well and everybody enjoyed themselves.

Advice for SES co-op students ? My advice for co-op is to go and do what you want to do. I chose to split my placement, and got two completely different experiences. If I was to go on co-op again I would do exactly the same thing. Take every opportunity that comes to you.

Micheal Devane

Co-op Placement: Leinster Rugby sub Academy (Strength and Conditioning)

Role: Working with the Leinster Rugby Under 18, 19 and 20 rugby teams and Leinster



Conditioning Coaches with a view to preparing teams for the interprovincial competitions in September.

The typical day

A typical day began at 8.30 am with a 30 minute speed and plyometric session, followed by a weights session. During the afternoon rugby session sessions I worked with any injured players, who were unable to take part in the rugby session. This was usually extra conditioning work, specifically tailored to the injured player. As I had also gained experience through competing in several Olympic weightlifting competitions, the Leinster strength and conditioning staff encouraged me to coach players on Olympic weightlifting during the gym sessions. I was often tasked with coaching any new players entering the sub Academy.

Most rewarding aspect of your co-op? Getting to work with such a large group of rugby players. I gained great experience working with players from under 16 up to under 20 and I gained a great understanding of their development pathway all the way up to senior level.

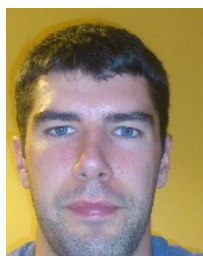
Advice for SES co-op students ? I would advise Co-Op students in the field of strength and conditioning to try to get as much experience as possible prior to going on Co-Op. I believe that I gained great experience working with Limerick underage hurling teams that stood to me during my Co-Op.

Linda Bolger

Co-op Placement: Dublin City University and Loughborough University.

Role? Physiological testing for a European funded DEXLIFE project in the School of Exercise and Health and Performance in DCU. My responsibilities included calibrating metabolic machines used for VO2 max (running performance) testing, equipment preparation, anthropometric and body composition measurements, heart rate variability tests on subjects using Vagus machines, preparation of subjects for ECG measurement and monitoring of subjects during performance tests. On another project which included glucose tolerance testing, I was responsible for preparing glucose drinks, calibrating biochemistry equipment for blood processing (e.g. calibrating centrifuge), and processing blood samples. On other days I helped PhD students with their data collection, helped with the running of exercise classes for people recovering from chronic illnesses, learned to use new equipment and helped with FYPs.

While in Loughborough, I had a biomechanics placement. The system I spent most of my time with was the Vicon Motion Analysis system which consists of 18 cameras and computers. Calibration of the system takes a lot of time and calibrating it properly takes lots of practice. Helping out with Masters and PhD



Experience of 5 Sport and Exercise Sciences Students

or Study Abroad Placements. Coop experiences varied for students with placements in strength and Sports Partnerships, physical therapy, schools and the leisure industry. There were 14 international remainder in Ireland. In this feature, five Sport and Exercise Sciences 4th Year Students talk about their placement and they offer some advice for Sport and Exercise Sciences students going on placement in the

projects was one of the main parts of my placement. Labelling 3D data that was collected from trials performed by the English cricket teams were a large part of a typical day in Loughborough. These data were then used to produce reports on the bowling techniques of the bowlers. I also got the chance to work with the English Cricket Board, Shane Warne (elite cricket bowler), and Sky Sports on rare occasions.

What skills did you use most?

Interpersonal skills for meeting and greeting subjects, organisational skills (completing tasks and in the correct order) and computer skills (processing data and using new software).

Most rewarding aspect of your co-op?

The most rewarding aspect of my Coop was gaining experience working with people who are excellent at what they do in their given fields and gaining hands on experience in the sport science world.

Kevin Tattan

Co-op Placement: Sport Science Assistant at West Coast Eagles Australian Football League Club (Perth, Australia).



The typical day

On a typical day I worked closely with the players collecting data which were used to monitor training loads, prevent injuries and maximise performance. Daily tasks included management of the GPS time-motion system and central database (smartabase), collection of wellness, exertion and risk factor variables. I also attended all sport science and training planning meetings that included all sport science, conditioning, rehab and physiotherapy staff. I was part of research and innovations at the club where I collected and summarised relevant articles to improve the processes at the football club.

Most rewarding aspect of your co-op? Learning from leaders in the field of elite sport. Being at one of the most sophisticated sport science departments in world sport, I had constant access to expert advice and excellent learning resources to improve my academic/professional ability. Being in a new country with a different culture was also an unforgettable life experience.

Advice for SES co-op students ? Get experience in a field you are interested in. For me, I very much enjoyed the atmosphere and environment of an elite sports team, but it is not for everyone. If you have a particular interest in an area try to get experience in this area. Contact as many companies/people as you can to get the best possible experience in your chosen field of interest. Also keep an open mind: during my placement at the Eagles I discovered future career interests I would not have expected, and also ruled out possible career paths I previously desired.

Jenny Higgins

Co-op Placement: PESS Department, working as an assistant to Healthy Ageing Research team.



The typical day Days varied depending on the phase of testing but this variety was one of the most enjoyable parts of the work. During data collection days we would start around 7am and assist with collection of blood samples & DXA body scans. Other days I would assist with collection of data for strength and function which affect everyday life. Outside of these test weeks work would mainly consist of delivering exercise classes, answering participants' queries, analysis of data and working in the biochemistry lab to prepare blood samples for analysis.

What skills did you use most?

As a physiology-based placement most of the skills were related to this discipline but there was a lot of overlap, and this multi-disciplinary approach is probably more like the real world of sport science. A lot of the lab work was new to me but really enjoyable. The exercise classes obviously involved coaching and some of the skills from S&C and sports injuries modules helped in this area. While I had a few years of coaching experience before coop it had nearly all been with underage groups so there was definitely some learning working with 50-70 year olds who often had little or no experience of resistance training. While sport science skills were important, communication was probably the most used skill, whether it was with participants, postgraduate students or any other members of the department. I can honestly there wasn't a day that didn't involve talking, emailing or ringing someone and without it the rest of the system simply wouldn't work.

Most rewarding aspect of your co-op?

Seeing improvements in participants during the 12 weeks of exercise classes and the enjoyment they got as they improved.

Advice for SES co-op students ?

ASK QUESTIONS!!! Once you actually ask you learn so much more and everyone was really supportive and helpful. It's a case of the more you put in the more you get out of it, so just be enthusiastic, enjoy it and hopefully pick up a few skills along the way too.

Dr. Brian Carson is the Cooperative Education coordinator for the Sport and Exercise Sciences programme. His role is to act as the academic link between the Cooperative Education division, respective employers and students on placement. As part of this remit he is involved in identifying appropriate employment opportunities through industry and applied sport and exercise practitioner links and conducting and assigning academic site visits. Academic visits to the workplace are a particularly important element of the process which enable the PESS department to assess the suitability of placements, the performance of students, employer satisfaction and most importantly to foster relationships with employers in the field of sport and exercise science. The feedback received from employers in recent years has been extremely positive which reinforces the SES programme design and delivery and is testament to the high standard of our 3rd year students.





LOUISE McCAGH

2013 WORLD TAEKWON-DO CHAMPION

RESULTS TO DATE

- 2013 WORLD CHAMPIONSHIPS, BENIDORM, SPAIN. GOLD –62KG SPARRING, BRONZE TEAM SPARRING
- 2013 EUROPEAN CHAMPIONSHIPS, SKOVDE, SWEDEN. SILVER SPECIAL TECHNIQUE AND SILVER TEAM SPECIAL TECHNIQUE
- 2012 WORLD CUP, BRIGHTON, ENGLAND. GOLD AND BRONZE SPECIAL TECHNIQUE (SPLIT INTO 2 SEPARATE CATEGORIES FOR WORLD CUPS), SILVER SPARRING –58KG, BEST OVERALL SENIOR FEMALE COMPETITOR
- 2012 EUROPEAN CHAMPIONSHIPS, MARIBOR, SLOVENIA. SILVER SPARRING –58KG, BRONZE SPECIAL TECHNIQUE AND BRONZE TEAM SPARRING
- 2009 UNTIL PRESENT: 1ST PLACE NATIONAL RANKING
- 2009 WORLD CHAMPIONSHIPS, MAR DEL PLATA, ARGENTINA. SILVER –55KG SPARRING, SILVER SPECIAL TECHNIQUE, BRONZE PATTERNS, BRONZE SPECIAL TECHNIQUE, BRONZE TEAM PATTERNS. CAPTAIN OF JUNIOR FEMALE TEAM

Louise McCagh is a 4th year, Sport and Exercise Sciences student in PESS, and in October 2013, aged 19, became the first Irish woman to win an International Taekwon-do Federation (ITF) World title at the ITF Taekwon-Do World Championships which were held in Spain. Louise has become the fourth individual senior champion from Ireland and the **first ever female** winner of a senior title. Louise's incredible achievement followed wins over competitors from Argentina, Norway, and Hungary. On route she also beat the three time world champion and eight time European champion from Poland, Ilona Omiecinska.

Louise is coached by Adrian Byrne who is a Coach Education Development Officer in Coaching Ireland. Adrian is a PESS graduate and graduated from UL with a BSc in Sport and Exercise Sciences in 2003. Adrian Byrne, was the head coach of the Irish delegation of 48 competitors and 7 coaches and managers.

In this feature, Louise takes time out to describe what it is like to be a full time student and international athlete.



Ireland head coach Adrian Byrne with Louise McCagh at the World Championships.

fitness and plyometric sessions. The gym and 1:1 sparring sessions mostly take place here in UL. The fitness sessions at home or on the track in UL and my club sessions take place in Shannon. However in the Summer I was based in Dublin with my co-op at NADA (National Athlete Development Academy) so I was training with a few different clubs and was able to use the gym at NADA. The variety of fighters at NADA was a big help in the lead up to the World Championships.



Louise receives her medal along with Ilona Omiecinska (Silver) and Joanna Paprocka (Bronze) of Poland

STUDENT AND ATHLETE

Life as a full time student and athlete can be tough, as both are pretty time consuming. Preparation is key as I have to cook meals in advance and arrange training around lectures. I also have my own Tae Kwon-Do Club where I coach 4 hours a week to help fund my competing. I just have to prioritise depending on the time of year. The world championships and world cup take place in October, so I am able to focus on my studies once the competition is over.

The European Championships take place at the end of April/ start of May which is just before exams. This can be quite stressful and means bringing a laptop and notes to the competition and studying during downtime.

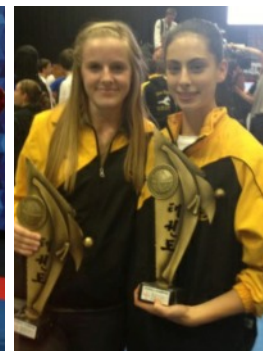
My time management has improved massively over the past four years and all my lecturers in the department have been very understanding.

SPORT & EXERCISE SCIENCES AT UL

I chose to study Sport and Exercise Sciences initially to become as educated as possible about my own training methods as an athlete. I was looking for anything that would give me an edge against other competitors. Through the course I have been able to keep in line with the latest training methods, nutritional strategies, sports psychology and recovery. This has helped me make large improvements in my performance. My final year project examines attentional focus and its effect on pattern perception in elite Taekwondo athletes.

HIGHLIGHTS TO DATE & FUTURE PLANS

The World Championships is my highlight to date. It was something I have been obsessed with since the age of 7 and it really was a dream come true. Beating opponents I had looked up to and watched videos of when I was younger en route to the gold medal was a massive highlight too. Fighting in the Final of the World Cup in 2012 was a great experience. The final took place in a gala. There was a huge crowd there watching and the atmosphere was indescribable. In terms of future plans, I hope to retain the world championship title in 2 years time and become one of the most successful females in Tae Kwon-Do. I hope to graduate with a 1:1 and then perhaps a Masters.



Above left: Louise McCagh lands a counter back kick as Ilona Omiecinska comes forward.

Above right: Louise McCagh and Chloe Aboud. Best overall senior and best overall junior competitors at the 2012 ITF World Cup, Brighton.

Leading by Example: Teacher Educators' Professional Learning through Communities of Practice

Dr. Melissa Parker
Department of Physical Education and Sport Sciences



This feature reviews a recent publication by Dr. Ann MacPhail, Dr. Melissa Parker, Dr. Deborah Tannehill (UL) and Dr. Kevin Patton (California State University).

It is considered that 1) professional development (PD) is designed to transform teaching and is determined by teachers, 2) teachers view themselves as learners both in terms of the process of learning in PD as well as the product of a specific PD situation, and 3) success for teachers is student learning. All three are equally powerful to teacher educators if one is to simply replace 'teachers' with 'teacher educators'. Yet, there has been a limited interest in examining physical education teacher educators' role and practices in embedding professional responsibility, commitment to continued professional learning, for both teacher educators and pre-service teachers (PSTs) in physical education teacher education (PETE) programmes (MacPhail, 2011). Considerably less is known, when compared with in-service teachers, about what constitutes continuing professional learning and development opportunities within PETE programmes that have potential to instil in teacher educators and PSTs an appreciation for experiences that will contribute to lifelong learning.

While the concept of communities of practice (CoP) has been frequently applied to ongoing professional development, little is currently known about how professional learning structures in teacher education might support these stages. In particular, the discussion and investigation of development as teacher educators and researchers is often overlooked. Directed by a landscape of CoP as PD (Parker, Patton, & Tannehill, 2012), where CoP are represented by the components of success, guideposts, roadblocks, the role of the facilitator, and potential, four case studies are shared that demonstrate the extent to which PETE learning can be mapped onto the landscape. The four examples are framed by Wenger's (2007) three distinguishing CoP elements: they share a domain of interest, members actively pursue that interest, and through sustained interaction they develop a shared practice.

CASES

In one case physical education teacher educators encourage a community with PSTs through modeling learning. The case is set in a four-year PETE concurrent programme. In year one of the programme, PSTs undertake a module in which they are introduced to pedagogical principles and general teaching strategies. While the pedagogical principles were explicit throughout the year one module, there was concern that faculty were not capitalizing on other opportunities where the pedagogical principles could be revisited. This concern led to faculty choosing pedagogical principles to revisit, reinforce, and discuss further throughout other relevant teaching and learning opportunities in the programme.

A second case shares a PETE faculty and their strive for programme coherence that did not evolve as the members of the group initially envisioned. The group consisted of five

teacher education faculty; four of whom formed the core of the teacher education programme and who were administratively supported by a fifth. The PETE programme had recently been revised by one of the four (with encouragement of the fifth), one faculty joined the group just at the end of the revised programme creation, and the other two faculty were new to the programme and the institution. The hope was that all could coalesce around the delivery of the PETE programme.

It is assumed that collaboration in research is 'a good thing' and that it should be encouraged. As such it is a source of stimulation and creativity, providing intellectual companionship while extending an individual researcher's network. The third case portrays an example of a successful research collaboration. It depicts how a pair of PETE researchers successfully navigated the process of creating and maintaining a collaborative relationship across two institutions and in essence, formed a mini-CoP.

Case study 4 is about the coming together of two sets of collaborative relationships into a research team with a common focus in teacher education research. Each collaboration included a senior academic and a younger, capable scholar at the peak of his or her career. The two senior colleagues were experienced PhD advisors, well-developed and published researchers and teacher educators, yet over the past number of years had reduced their involvement in and output of research. On the other hand, the two younger colleagues were both prominent researchers in their own right.

DISCUSSION

In each of the cases there was a shared construction of knowledge that continued over time resulting from frequent discourse and active and social engagement that varied in degree depending on the stage of CoP development. Yet, it was clear that the embedded components within the landscape were enacted in diverse ways and to various extents across the four case studies; thus resulting in the classifications of collections of teachers, established groups, and true CoP. In essence, a CoP that is sustained over time, involves shared member goals, frequent discourse, is active and social, and characterized by problems being solved by the members has exudes more potential for participant professional learning. The ideas in this paper in tandem with Wenger's (1998) CoP process can encourage teacher educators to consider whether opportunities undertaken in a PETE programme, and with colleagues external to the PETE programme encourage an authentic CoP.

References

- MacPhail, A. (2011) Professional learning as a physical education teacher educator, *Physical Education and Sport Pedagogy*, 16(4), 435-45.
- Parker, M., Patton, K., & Tannehill, D. 2012. Mapping the landscape of communities of practice as professional development in Irish physical education. *Irish Educational Studies*, 31, 311-327.
- Wenger, E. (2007). *Communities of practice. A brief introduction*. Retrieved April 7, 2013, from <http://www.ewenger.com/theory/>

More information about this study can be found at:

MacPhail, A., Patton, K., Parker, M., & Tannehill, D. 2014. Leading by Example: Teachers' Professional Learning Through Communities of Practice. *Quest*. 66 (1), 39-56. DOI: 10.1080/00336297.2013.826139



Hall of Fame

Graduates and Staff from the Department of Physical Education and Sport Sciences recognised in the UL Sport Hall of Fame

In recognition of the University of Limerick's unique contribution to sport regionally, nationally and internationally and to round off an excellent year of events celebrating UL40, the University of Limerick Sports Hall of Fame was unveiled on Saturday 28 September at UL Arena. The sixteen retired athletes chosen as inaugural inductees have been selected from the four decades of sporting excellence in UL's history. According to Professor Don Barry, President, University of Limerick *"These sixteen individuals....have reached the pinnacle of their sporting careers and have earned our highest esteem and gratitude for their contribution to UL Sport"*.



Eddie O'Sullivan, Sarahjane Belton, Declan Kidney and Tony Ward at the UL Hall of Fame celebrations in October 2013.

Of the 16 inductees, eleven are either graduates of the department of Physical Education and Sport Sciences or formerly Thomond College of Education, or have been teaching faculty of the department. The achievements of these eleven inductees are described in this feature. The department would also like to acknowledge the other inductees and congratulate them on their sporting achievements. They are as follows:

- [Gerard Hartmann \(Triathlon\)](#)
- [Eddie Keher \(Hurling\)](#)
- [Seán McMahon \(Hurling\)](#)
- [Seán O'Grady \(Paralympic Athletics\)](#)
- [Ray Silke \(Gaelic Football\)](#)

Click on Inductees' names to link to hall of fame utube videos

Sarahjane Belton - Rugby

Sarahjane Belton was a student at the department of Physical Education and Sport Sciences and graduated in 2001 with a BSc. in Physical Education. She later embarked upon postgraduate research under the supervision of Dr. Ciaran MacDonncha and graduated with a PhD in 2006. Sarahjane is a lecturer in the department of health and human



performance at Dublin City University. After taking up rugby in 1999, Sarahjane Belton played for Munster and Ireland and captained her country on 26 occasions. She led Ireland to qualify for the 2006 World Cup finals and was selected at out-half on the World All-Star XV team, the only Irish player ever to be bestowed this honour. Belton played rugby with the University of Limerick and coached the team to two All-Ireland and two intervarsity titles in the mid-2000s. She was one of the founding players of UL-Bohemian Women's Rugby Team and won 8 All-Ireland titles with the team.

Eimear Cregan - Hockey

Eimear Cregan was a student at the department of Physical Education and Sport Sciences and graduated in 2005 with a BSc. in Sport and Exercise Sciences and in 2008 with a Graduate Diploma in Education (Physical Education). With 171 appearances for Ireland, Eimear was the most capped Irish hockey player of all time when she retired in 2011. She scored 26 international goals, played in four European championships and one World Cup and captained Ireland from 2008-2011. Cregan won an Outstanding Achievement Alumni Award for Sport at the University of Limerick in 2010. Cregan played camogie for Limerick at all levels and was part of the University of Limerick team that won the Ashbourne Cup in 2005.



Jimmy Deenihan - Gaelic Football

Jimmy Deenihan was student of Thomond College of Education and graduated in 1976 with a B.Ed. Physical Education. Kerry footballer, Jimmy Deenihan won one Under-21 All Ireland, seven provincial, four National League and five All-Ireland Senior medals between 1973 and 1982. In 1981, Deenihan collected his seventh Munster Championship medal, captained Kerry to their fourth consecutive All-Ireland win and earned an All-Star award.



Deenihan was elected to Dail Eireann in 1987. He was appointed Minister for Arts, Heritage and the Gaeltacht in 2011.

Liam Hennessy – Athletics

Liam Hennessy was as student of Thomond College of Education and graduated in 1981 with a B.A. in Physical Education and in 1993 with a PhD. Liam Hennessy competed on more than 55 occasions for Ireland at the pole vault and holds the Munster Under-23 men's indoor record to this day. An exercise physiologist and strength and conditioning coach of international repute, Hennessy has worked with some of the world's most prestigious sporting individuals and teams, including the Atlanta 1996 Irish Olympic athletes, the IRFU, Pdraig Harrington, the Titleist Performance Institute, inter-county Gaelic football and hurling teams and professional soccer teams in Germany, Italy and England.



Eddie O'Sullivan – Rugby

Eddie O'Sullivan was a student of Thomond College of Education and graduated in 1980 with a B.A. in Physical Education. During Eddie O'Sullivan's reign as head coach of the national rugby team from 2001-2008, Ireland won three Triple Crowns in four years, finished second in the Six Nations on four occasions and rose to third in the world rankings in 2003 and 2006.



Sinead Millea – Camogie

Sinead Millea was a student at the department of Physical Education and Sport Sciences and graduated in 1997 with a B.A. in Physical Education. During her outstanding career in camogie, Sinead Millea won seven Leinster Championships, four National League and two All-Ireland Championship medals with Kilkenny. Millea was a key member of the University of Limerick team that won the Ashbourne Cup in 1995 and won the Ashbourne Shield in 1996 and was selected on the Combined Universities team on four occasions. She was the recipient of an All-Star award in 2004.



Pat Spillane – Gaelic Football

Pat Spillane was a student of Thomond College of Education and graduated in 1977 with a B.Ed in Physical Education. One of the most decorated footballers in Irish history, Pat Spillane won eight All-Ireland football Senior Football medals with Kerry and earned nine All-Star awards, a feat matched by no other Gaelic Footballer. He was chosen on the GAA's Football Team of the Century in 1984 and Team of the Millennium in 2000.



Carmel Vekins – Kayak and Canoe Polo

Carmel Vekins was a lecturer at the department of Physical Education and Sport Sciences / Thomond College of Education from 1975-2006. During her 35 year career Carmel Vekins was a national and international competitor and administrator in kayaking and canoe polo. She won numerous international medals including a world cup bronze medal in Women's K2 in 1985. Vekins held administrative positions at home, at European and at world level with the International Canoe Federation. Vekins designed and delivered the first canoe polo coach education programme in Ireland.



Brian Mullins – Gaelic Football

Brian Mullins was a student of Thomond College of Education and graduated in 1976 with a B.Ed. in Physical Education. Brian Mullins won four All-Ireland and nine Leinster Championship medals between 1974 and 1985. He was honoured with All-Star awards following the 1976 and 1977 All-Ireland wins and captained Dublin in 1985.



Ciara Peelo – Sailing

Ciara Peelo was a student at the department of Physical Education and Sport Sciences and graduated in 2005 with a BSc. in Physical Education. Ciara Peelo represented Ireland at the 2008 Olympic Games in Beijing in the women's Laser Radial class. Peelo served as coach for the Irish Youth teams in a number of classes, at World and European Championships during the 2000s.



Tony Ward – Rugby

Tony Ward was a student of Thomond College of Education and graduated in 1978 with a B.A. in Physical Education. Tony Ward played for Munster, Leinster, Ireland, the Barbarians and the British and Irish Lions during 1975-1987. Ward played a pivotal role in Munster's historic 12-0 defeat of the All Blacks in 1978. He won 19 caps and scored 113 points for Ireland and was named European Rugby Player of the Year in 1979. Ward continues to contribute to Irish rugby in a coaching capacity and as a respected journalist and commentator.
All photos from Corporate Affairs, University of Limerick





The 3rd Annual President's Volunteer Award Ceremony took place at the University of Limerick on the 16th October 2013. Over 150 UL student volunteers were recognised and rewarded for their commitment to community development by the President of University of Limerick, Professor Don Barry. This year's student body amassed a staggering 10,500 volunteering hours with 65 local, regional, national and international communities. Five students/graduates from the PESS department received awards at the UL President's Volunteer Award ceremony.

- Laura-Anne Furling (PESS PG) received an award as a result of time given to the Irish Hockey Association, UL Clubs and Societies (specifically UL Handball Club) and Concern.
- Orla Foley from the MSc. in Sports Performance, received an award for her work related to the Boru Three Peaks race every year (*Orla Foley at the awards, pictured right*).
- Niall Touhy and Lt. Conor Hurley (SES graduates 2013) also received awards. Niall's and Conor's awards were related to the huge amounts of time they gave to Clubs and Societies while studying in UL.
- Kevin Bolger in year 4 of the BSc Physical Education programme also received an award.



PHYSICAL EDUCATION & SPORT SCIENCES STUDENT BALL 2013

Aoife Courtney

The PESS Ball 2013 experienced a refreshing change of pace, with the organisation of the event being entirely student led. The committee demonstrated tremendous teamwork, with representatives from both the Sports Science and Physical Education programmes working in unison to make the event a success. In honour of the many years of dedication Cian O'Neill (past lecturer of the PESS department) gave to the planning and organisation of the event, the committee chose a charity close to Cian's heart to donate the proceeds from the occasion.

Ian's Trust is a charity, initiated by John and Oorla Cusack, Ian's parents, for the support of sufferers and families of children with Acquired Brain Injuries. Cian is a friend of the family who worked closely with Ian on his rehabilitation after a tragic road traffic accident. The charity was founded after Ian's untimely passing on August 17th 2012 aged 9. Ian or as he was known "Ian Bear" was a very special boy who always wanted to be a Superhero, he loved life and laughed even through the toughest days and could bring a smile to anyone.

The sum of €1,800 raised on the night was dedicated to Ian's Trust in order to facilitate John and Oorla in the work they carry out day to day. They have set up and Ian's trust website www.ianstrust.com where events can be followed. John and Oorla Cusack, as well as Cian O'Neill, were distinguished guests on the night. Kind words from Oorla Cusack, accompanied by the excellent MC work of Daniel Tindall (PESS Department), helped to make the night a huge success.

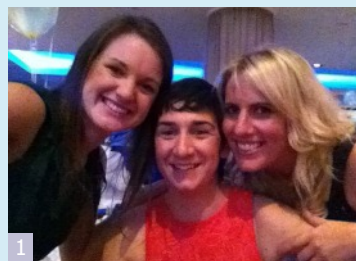
The night would not have been possible without the hard work and dedication displayed by the student representatives on the committee. Their ability to work as a unit, guided by Ursula McCarthy (PESS Department), enabled the night to be a huge success. The 2013 PESS Ball created unquestionable cohesion between the Sport Science and Physical Education students within the department, which will hopefully be continued in years to come. Special recognition is given to the Committee members who took time from their hectic college lives in order to make the night a massive success:

Aoife Courtney (3rd yr PE) and Aisling Reid (4th yr SES) [Chief Organisers], Eoghan Hogan (4th yr PE), Noirin Murphy (3rd yr PE), Cormac Powell (Post-Grad Rep), Alana Frattaroli (3rd yr SES), Maeve Hurley (2nd yr PE), Padraig Lillis (2nd yr SES), Tony McBride (1st yr PE), Leanne Moore (1st yr PE) and Mila Maguire (1st yr SES).

These words were sent in from Oorla Cusack on behalf of herself and John the founders of the Trust.

"Both John and I had the great privilege of being invited to the PESS ball which was dedicated to Ian's Trust this year. What struck me initially was the beauty of the room and the way it was decorated in Ian's favourite colours with moons and stars. The committee went to such great lengths to have things perfect. It moved me to tears. The night was just amazing and speaking to everyone and telling them about our work was a true honour. A Brain Injury has such a devastating effect on the whole family and I felt all of the students listened to our message and I feel they all left that night with a new awareness of ABI. We both enjoyed sharing this great night with you all. Thank you so much from the bottom of our hearts...To the moon and back."

John & Oorla Cusack



1. (L-R) Laura O'Sullivan, Tara Staunton and Aoife Courtney
 2. (L-R) Cait De Van, Claire Hughes, Eabha Howard, Julia white and Niamh O'Dea(3rd year PE)
 3. (L-R) Michelle Fleming, Aisling Reid, Dr. Brian Carson, Dr. Mark Lyons & Dervla Kilmartin

EVALUATION OF THE POINTS FOR LIFE PILOT PROJECT

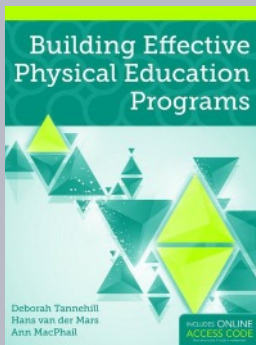
The project aims to assess the impact of the intervention across 2nd and 5th classes in five primary schools in Wicklow on the following student variables:

- (i) fundamental movement skills
- (ii) physical activity behaviours and self-reported fitness
- (iii) objective measures of physical activity
- (iv) awareness, knowledge and understanding of physical activity

A consortium of PE-PAYS members won the tender and were awarded €24,000 to evaluate the project and the evaluation team is made up of Dr. Ann MacPhail (UL), Dr. Tara Coppinger (CIT), Dr. Susan Crawford (UCC), Eileen McEvoy (University of Jyväskylä / UL), Professor Marie Murphy (UU), Dr. Elaine Murtagh (MIC), Dr. Deirdre Ni Chroinin (MIC) and Dr. Missy Parker (UL). The type of data to be collected will be both quantitative and qualitative. Some of the measurement tools will provide quantitative data (e.g., Test of Gross Motor Development 2, Manchester Motor Skills Assessment, self-reported physical activity and fitness questionnaires, pedometers/accelerometers) while others will provide qualitative data (e.g., write and draw, interviews and focus groups). For further information please contact Ann.MacPhail@ul.ie



NEW BOOK



'Building Effective Physical Education Programs'

by Deborah Tannehill (PESS, UL), Hans van der Mars (Arizona State University) and Ann MacPhail (PESS, UL)

'Building Effective Physical Education Programs' (Jones & Bartlett) is a unique text focused on designing and delivering school physical education programmes. The text succeeds in helping pre-service, novice, and more experienced teachers to understand the essential components necessary to create and deliver impactful physical education programmes within their school or organization. Through its use of engaging learning experiences found in each chapter, this text is ideal for use across various physical education teacher courses and teacher professional development programmes.

University Hospital Limerick (UHL) Research Symposium 2013

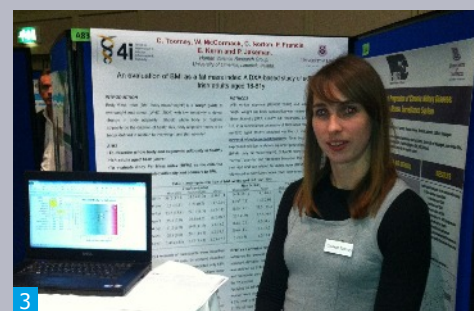
The inaugural University Hospital Limerick (UHL) Research Symposium was held on October 18th 2013 at the Strand Hotel in Limerick. Organised by the Graduate Entry Medical School, the purpose of the research symposium was to showcase the breadth, depth and quality of health related research that is being progressed at University hospitals, in primary care and right across the University Campus. A number of staff and postgraduate students from PESS presented research at the symposium.

Lifestyle and Health Oral Presentations

- *The Activity Profile and Health Related Risk Factors in Adolescent Females: Kieran Dowd, Deirdre Harrington, Ailish Hannigan, Sarah Kelly, Grainne Hayes, Helen Purtill, Ian Macken, Clodagh O'Gorman, Niall Moyna and Alan Donnelly.*

Poster Presentations

- *An evaluation of BMI as a fat mass index: A DXA-based study of adiposity in Irish adults aged 18-81y. Phil Jakeman, Clodagh Toomey, Will McCormack, Catherine Norton, Peter Francis, Emmet Kerrins.*
- *Biomechanical modelling of leg movement following knee surgery. Ian Kenny, D. Madden, J. Downey, P. Murray, J. Campbell, and Sarah Breen.*
- *The relationship between Sedentary Behaviour and Health in Irish Female Adolescents. Grainne Hayes, Kieran Dowd, Alan Donnelly, Clodagh O Gorman, Alan Macken*



1. Gráinne Hayes (PESS). Gráinne is a postgraduate student in the PESS department and is examining physical activity and health promotion in adolescents. Her supervisors are Prof. Alan Donnelly and Dr. Ciaran Mac Donncha.
2. (L-R). Dr. Kieran Dowd (GEMS), Dr. Ian Kenny (PESS) and Prof. Alan Donnelly (PESS).
3. Clodagh Toomey (PESS). Clodagh Toomey graduated with a BSc. Physiotherapy, University of Limerick (2010) and recently successfully sat her viva voce for her PhD. Clodagh is supervised by Prof. Phil Jakeman and will graduate in August 2014. Clodagh continues to work as part of the [UL Body Composition Study](#) Research team.

Staff Research Funding 2013



Food for Health Ireland (FHI2) Grant Award (Health Ageing and Performance Nutrition)



€2 million awarded to Prof. Phil Jakeman (3 Post-Doc., 6 RAs and 2 PGs appointed / to be appointed).

DEDIPAC (Determinants of Diet and Physical Activity) is a pioneering knowledge hub funded through a European 'Joint Programming Initiative'.



€250K awarded from the European consortium to Ciaran MacDonncha and Alan Donnelly (2 Post-Doc. to be appointed)



ERASMUS & International Exchange Agreements



The PESS Department has one of the largest ERASMUS and International semester exchange programmes in the EHS Faculty.

This Spring 2014 in PESS there are 67 incoming ERASMUS and International exchange student module registrations. This semester also sees second and third year SES students on exchange to California State University Long Beach University in 12 modules.

In 2014 a new bilateral staff/faculty ERASMUS exchange agreement will be signed with Universidad de Valladolid in Spain. PESS will host a faculty exchange visit from Illinois State University in March 2014.



PESS & PESS Affiliated Programmes



B.Sc. Physical Education

B.Sc. Sport & Exercise Sciences

Professional Diploma in Education (Physical Education)

Graduate Diploma/M.Sc in Teaching Physical Education, Sport and Physical Activity

Graduate Diploma and MA Dance

M.Sc Sports Performance (Taught)

Structured PhD

Certificate in Exercise & Health Fitness (CEHF)

Diploma in Exercise & Health Fitness (DEHF)

Bachelor of Science in Exercise & Health Fitness (B.Sc.)

PESS GRADUATIONS WINTER 2013



1. Dr Darragh Graham, Dr. Drew Harrison, PESS Department.
2. Graduates from the MA Dance. (L-R) Nicole MacDonald, Maria King, Julianne Murphy, Aisling McCormick, Aisling Byrne

MOST READ ARTICLES OF 2013 IN BIOMECHANICS BY TAYLOR AND FRANCIS

Taylor and Francis released the list of the 10 of the most downloaded papers from their Biomechanics journals in 2013. The top-ten includes the following paper: Movement variability and skills monitoring in sports. The publication includes three UL authors, including Dr. Drew Harrison (Senior Lecturer, Biomechanics, PESS Department).

ABSTRACT

The aim of this paper was to present a review on the role that movement variability (MV) plays in the analysis of sports movement and in the monitoring of the athlete's skills. MV has been traditionally considered an unwanted noise to be reduced, but recent studies have re-evaluated its role and have tried to understand whether it may contain important information about the neuro-musculo-skeletal organisation. Issues concerning both views of MV, different approaches for analysing it and future perspectives are discussed. Information regarding the nature of the MV is vital in the analysis of sports movements/motor skills, and the way in which these movements are analysed and the MV subsequently quantified is dependent on the movement in question and the issues the researcher is trying to address. In dealing with a number of issues regarding MV, this paper has also raised a number of questions which are still to be addressed.

Preatoni, E., Hamill, J., Harrison, A.J., Hayes, K., Van Emmerik, R.E. and Wilson, C. 2013. Movement variability and skills monitoring in sports. Sports Biomechanics. Vol 12 (2), pp 69-92.



STUDENT & GRADUATE ACHIEVEMENTS

- Congratulations to PESS students and graduates Niamh Whelan (athletics 200m gold), Niall Tuohy (athletics 800m gold), David Quilligan (4 x 200m relay silver, long jump silver) at the 2014 Irish Universities Athletics Association (IUAA) indoor championships in Athlone.
- Congratulations to all students who graduated from PESS at the 2014 Winter ceremony.
Awards included:
 - Certificate in Exercise and Health Fitness (NCEF)
 - Higher Certificate in Exercise and Health Fitness (NCEF)
 - Diploma in Exercise and Health Fitness (NCEF)
 - MA Dance
 - Doctor of Philosophy PhD (Dr Darragh Graham)
- Fiona Coughlan (BSc Physical Education and Mathematics 2005) was named the Irish sportswoman of the year 2013. Fiona captained the Irish women's rugby team's historic Grand Slam success.
- BSc Sport and Exercise Sciences graduate Michael Deasy took charge during the 2013 Ireland rugby union international series as the Samoan national strength and conditioning coach.
- Louise McCagh (BSc Sport and Exercise Science current 4th year student) was crowned ITF Twaekwon-Do world champion in October 2013. Congratulations also to her coach Adrian Byrne (Coaching Ireland).

Outreach

On Thursday 20th February, a group of 1st year Sports Coaching and Development students from Limerick Institute of Technology (LIT) visited the PESS department. The purpose of the visit was to demonstrate to the LIT students the range of research facilities and types of research that is undertaken in the department.

During the two hour visit, students were brought on a tour of the physiology laboratory and took part in demonstrations in the biomechanics laboratory (optojump with timing gates, MAC and force plates, and golf performance analysis). In the psychology laboratory, students were shown a range of psychology equipment and had an opportunity to have their reaction time assessed using the BATAK board. The students also heard talks from Rachel Turner about the National Altitude Training Centre (National Altitude Centre Coordinator), Kris Beattie (PESS postgraduate researcher), and from sport and exercise sciences final year students (final year metabolism project).

The LIT students were led by Dr. Niamh Kitching (graduate of the PESS department, 2012) and the event was coordinated by Michelle Norris and Leanne Coll (PESS post-graduate students).



1st Year Sports Coaching and Development Students from Limerick Institute of Technology

ACHIEVEMENTS

News

The UL Executive Committee considered a submission to support the establishment of the first Irish University based Golf Academy at UL for teaching, research and service. This was approved for submission to planning stage.

Dr Mark Campbell and Dr Ian Kenny have been leading preparations along with UL management.

The academy plans to house and deliver three elements:

1. Education including academic programmes and CPD;
2. Research with a sports science, health and equipment technology focus;
3. Golf Service including expert coaching, conditioning, community outreach and high performance provision.

Details will follow later in 2014.



Dr Tadhg MacIntyre was an invited keynote speaker at the First International Conference in Sport Psychology and Embodied Cognition, 24th–27th February 2014, Emirate of Abu Dhabi, UAE. **Keynote:** Lives on the Road: A strength-based approach to understand driver fatigue. In addition, Tadhg also delivered a presentation on "Visualization, Stimulation and Action: Lessons for Sport from Neuroscience."



Accreditation

MSc Sports Performance was accredited for 2014 for the third consecutive year by the National Strength and Conditioning Association (NSCA of America) as an international provider of certification.

DATES FOR YOUR DIARY

- PESS have four research priority areas: Food and Health, Physical Activity and Health, Sport and Human Performance, and Sport Pedagogy. On Friday 28th February Professor Phil Jakeman and Clodagh Toomey will present a research seminar on the first research priority 'Food and Health'.
- PESS Internships: To be advertised March 2014
- Postgraduate Scholarships: To be advertised March 2014
- Jacinta O'Brien annual 10k 6th April 2014
- The PESS department will invite students who present a sport/physical activity-related entries at the 2014 BT Young Scientist & Technology Exhibition to present their projects to the department on Friday 23rd May 2014.
- The PE PAYS forum 2014 will be held in Waterford Institute of Technology on Thursday 5th and Friday 6th June.



Book

1. **Tannehill, D.**, Van den Mars, H., and **MacPhail, A.** 2013. Building Effective Physical Education Programs. Jones & Bartlett Learning. ISBN-10: 1284021106

Book Chapter

2. Deluzio, K., **Harrison, A.J.**, Coffey, N. and Caldwell, G.E. (2013) "Analysis of Biomechanical Waveform Data." In: Robertson, G., Caldwell, G., Hamill, J., Kamen, G. and Whittlesey, S.N. (Eds) Research Methods in Biomechanics-2nd Edition Chapter 14, pp. 317-337. Human Kinetics Publishers, Champagne IL. (ISBN-13: 9780736093408).
3. **MacPhail, A., Campbell, M., Kenny, I., Tindall, D. & Tannehill, D.** (2014) 'Patrick', in K. Armour (Ed.) pedagogical cases in physical education and youth sport, 49-62. London: Routledge.

Peer Reviewed Papers

4. **Beattie, K., Kenny, I.C., Lyons M.** and **Carson, B.P.** (2014). The Effect of Strength Training on Performance in Endurance Athletes. Sports Medicine. e-first DOI 10.1007/s40279-014-0157-y
5. Brick, N., **MacIntyre, T., & Campbell, M.** (2014). Attentional focus in endurance activity: New paradigms and future directions. International Review of Sport & Exercise Psychology, 7 (1), 106-134. DOI:10.1080/1750984X.2014.885554
6. Chroinin, DN, **O'Sullivan, M.**, Tormey, R (2013) 'Teacher educators' perspectives on the implementation of beginning teacher standards for physical education in Ireland: developing and regulating the profession?' European Journal Of Teacher Education, 36 :261-278. [DOI 10.1080/02619768.2012.696191]
7. Costello JT, McNamara PM, O'Connell ML, Algar LA, Leahy MJ, **Donnelly AE.** (2014) Tissue viability imaging of skin microcirculation following exposure to whole body cryotherapy (-110°C) and cold water immersion (8°C), Archives of Exercise in Health and Disease, 4(1): 243-250.
8. Costello JT, Selfe J, Karki A, **Donnelly AE.** (2014) Comparison of the Effects of Cold Air (-110°C) and Water (8°C) Cryotherapy on Knee Skin Temperature, International Journal of Sports Medicine, 35: 35-40.
9. Enright, E., & **O'Sullivan, M.** (2013). 'Now, I'm Magazine Detective the Whole Time: Listening and Responding to Young People's Complex Experiences of Popular Physical Culture'. Journal Of Teaching In Physical Education, 32 :394-418.
10. Floria, P. & **Harrison, A.J.** (2014). The influence of range of motion versus application of force on vertical jump performance in prepubescent girls and adult females. European Journal of Sport Science. Vol. 14, No. S1, S197_S204, DOI: 10.1080/17461391.2012.679316
11. Floria, P. & **Harrison, A.J.** (2013) The Effect of Arm Action on the Vertical Jump Performance in Children and Adult Females Journal of Applied Biomechanics, 29, 655-661
12. Healy, R. & **Harrison, A.J.** 2014. The effects of a unilateral gluteal activation protocol on single leg drop jump performance. Sports Biomechanics. DOI: 10.1080/14763141.2013.872288
13. Klemola, U, Heikinaro-Johansson, P., **O'Sullivan, M.** (2013) 'Physical education student teachers' perceptions of applying knowledge and skills about emotional understanding studied in PETE in a one-year teaching practicum'. Physical Education and Sport Pedagogy, 18 :28-41. [DOI 10.1080/17408989.2011.630999]

14. **MacIntyre, T., Campbell, M.** and Turner, M. 2014. It's good to talk: From Baptism to Immersion: How wet should we get in consulting?. Sport & Exercise Psychology. Review, Vol. 10 (1) 65-74.
15. **MacIntyre, T.,** Moran, A., **Campbell, M.** (2014). Looking back: Out from the shadows. The Psychologist, 27 (3), 2-3.
16. **MacIntyre, T.,** Moran, A., Collet, C., Guillot, A., **Campbell, M.,** Matthews, J., Mahoney, C. & Lowther, J. (2013). The BASES expert statement on the use of mental imagery in sport, exercise and rehabilitation contexts. *The Sport and Exercise Scientist*, 38, 10-11.
17. **MacPhail, A.,** Patton, K., **Parker, M. and Tannehill, D.** 2014. Leading by Example: Teachers' Professional Learning Through Communities of Practice. Quest. Vol 66 (1), pp 39-56. DOI: 10.1080/00336297.2013.826139
18. **Norris, M., Anderson, R.** and **Kenny, I.C.** 2013. Method analysis of accelerometers and gyroscopes in running gait: A systematic review. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology October 16, 2013 doi: 10.1177/1754337113502472
19. O'Loughlin, D., **MacPhail, A.** & Msetfi, R. 2013. The rhetoric and reality of research reputation: 'fur coat and no knickers'. Studies in Higher Education. DOI: 10.1080/03075079.2013.842224
20. **O'Sullivan, M.** (2013) 'New Directions, new questions: Relationships between curriculum, pedagogy and assessment in physical education'. Sport Education and Society, 18 (1):1-5. DOI:10.1080/13573322.2012.719868
21. Patton, K., **Parker, M.,** & Pratt, E. 2013. Meaningful learning in professional development: teaching without telling. Journal of Teaching in Physical Education, 32 (4), 441-459.
22. Sato, K., **Kenny, I.C.** and Dale, B.R. (2013) Current golf performance literature and application to training. Journal of Trainology, 2(2), 23-32.

Conference Proceedings

23. **Beattie, K., Kenny, I.C., Lyons, M. and Carson, B.P.** (2014) The relationship between neuromuscular function and economy in competitive distance runners. Presented at the 2014 All Ireland Postgraduate Conference in Sport Sciences and Physical Education, 24 January 2014, Limerick, Ireland.
24. **Bolger, R., Kenny, I.C., Lyons, M. and Harrison A.J.** (2014) Sprinting performance and resistance based training interventions: A systematic review with meta-analysis. Presented at the 2014 All Ireland Postgraduate Conference in Sport Sciences and Physical Education, 24 January 2014, Limerick, Ireland.
25. **Kenny, I.C.,** Madden, D., Downey, J., Murray P., Campbell J. and Breen, S. (2013) Biomechanical modelling of leg movement following knee surgery, Accepted for presentation at the 2013 University Hospital Limerick Inaugural Research Symposium, 18th October 2013, Limerick, Ireland.
26. **Norris, M., Anderson, R. and Kenny, I.C.** (2014) Previous and potential use of inertial sensors in longitudinal running gait analysis – links with running related injury. Presented at the 2014 All Ireland Postgraduate Conference in Sport Sciences and Physical Education, 24 January 2014, Limerick, Ireland.



Department of Physical Education &
Sport Sciences

Telephone: + 353 61 202896

FAX: + 353 61 202814

EMAIL: PESS@ul.ie

www.ul.ie/pess