



THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

Abstract Book

16th Annual International Conference on
Sport & Exercise Science

27-30 July 2020, Athens, Greece

Edited by
Gregory T. Papanikos

2020

Abstracts
16th Annual International
Conference on Sport &
Exercise Science
27-30 July 2020, Athens,
Greece

Edited by Gregory T. Papanikos

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TABLE OF CONTENTS

(In Alphabetical Order by Author's Family name)

Preface		7
Organizing Committee		8
Conference Program		9
1.	Organizational Culture, Knowledge Management Processes and Organizational Innovation in SME's <i>Ilona Baumane-Vitolina & Madara Apsalone</i>	12
2.	Transnational Entrepreneurship: A New Perspective on a Cooperative Approach towards Cross-Border Entrepreneurship <i>Christian Brandstetter, Roman Kerres & Carsten Hahn</i>	13
3.	Between Gender Isolation and Political Socialization: Women's Activism in Contemporary Japan <i>Rosemary Dawood</i>	15
4.	Characterization of Gait in People with Cerebral Palsy Using Inertial Sensors <i>Konstantinos Gianikellis Miguel Rodal-Martinez, Rafael Gutierrez-Horrillo & Santiago Gomez-Paniagua</i>	16
5.	Privacy <i>Ronald Griffin</i>	18
6.	The Value of Brand Archrivalry <i>Scott Jones</i>	19
7.	Examining Pre-Service Teachers' Teaching Quality as a Function of Content Knowledge in Teaching Elementary Content <i>Insook Kim</i>	21
8.	Exercise, Tourism and Environmental Sustainability: The Case of Plogging as a Niche Tourism Product <i>Maria Konstantaki</i>	23
9.	Money with Purpose - Rethinking Strategic Asset Allocation through Impact Investing <i>Ville Korpela & Petri Kuusisto</i>	24
10.	The Differences between Television Watching Habits and Digital Media Using Habits of Y and Z Generations <i>Mihalis Kuyucu</i>	26
11.	Neither Public nor Private: Hybridization in Care Services - The Case of Italy <i>Stefano Neri</i>	27
12.	Integration of Agile Approaches in SME's Product Development: Demand Analysis and Concept Development <i>Manuel Niever & Roman Kerres</i>	29
13.	Basic Anthropometric Measurements, Relative Age Effect, Goals Scored and Shooting Effectiveness in Youth Female Handball Players <i>Jose Miguel Saavedra & Yzan Saavedra</i>	31

14.	Backpack Carriage Loads to Lower Limb Kinetics <i>Hsin-Huan Wang & Chin-Shan Ho</i>	33
15.	Forecasts for the Command and Control Function of Cities in the Context of a Potential Economic Crisis <i>Anna Winiarczyk-Razniak & Piotr Razniak</i>	34
16.	The Influence of Work Difficulty on the Response of College Female Volleyball Players to Receive and Spike Ball by Shifting <i>Ti Wu & Chin-Shan Ho</i>	36

Preface

This book includes the abstracts of all the papers presented at the *16th Annual International Conference on Sport & Exercise Science (27-30 July 2020)*, organized by the Athens Institute for Education and Research (ATINER).

A full conference program can be found before the relevant abstracts. In accordance with ATINER's Publication Policy, the papers presented during this conference will be considered for inclusion in one of ATINER's many publications.

The purpose of this abstract book is to provide members of ATINER and other academics around the world with a resource through which to discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the association. ATINER was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet to exchange ideas on their research and consider the future developments of their fields of study.

It is our hope that through ATINER's conferences and publications, Athens will become a place where academics and researchers from all over the world regularly meet to discuss the developments of their discipline and present their work. Since 1995, ATINER has organized more than 400 international conferences and has published nearly 200 books. Academically, the institute is organized into 6 divisions and 37 units. Each unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of ATINER for putting this conference and its subsequent publications together. Specific individuals are listed on the following page.

Gregory T. Papanikos
President

**16th Annual International Conference on Sport & Exercise
Science, 27-30 July 2020, Athens, Greece**

Scientific Committee

All ATINER's conferences are organized by the Academic Council. This conference has been organized with the assistance of the following academic members of ATINER, who contributed by chairing the conference sessions and/or by reviewing the submitted abstracts and papers:

1. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, U.K.
2. Maria Konstantaki, Head, Sport, Exercise, & Kinesiology Unit, ATINER & Research Fellow, UK.

FINAL CONFERENCE PROGRAM
16th Annual International Conference on Sport & Exercise Science, 27-30 July 2020, Athens, Greece

PROGRAM

Monday 27 July 2020

09.00-10.00
Registration

10.00-10.30

Opening and Welcoming Remarks:

- **Gregory T. Papanikos**, President, ATINER.
 - **Domenico Maddaloni**, Associate Professor, University of Salerno, Italy.
 - **Maria Konstantaki**, Head, Sport, Exercise, & Kinesiology Unit, ATINER & Research Fellow, UK.
-

10.30-11.00

Kostas Gianikellis, Associate Professor, University of Extremadura, Spain.

Rafael Gutierrez-Horrillo, Researcher, University of Extremadura Spain.

Title: Characterization of Gait in People with Cerebral Palsy Using Inertial Sensors

11.00-11.15 Break

11.15-11.45

Anna Winiarczyk-Razniak, Assistant Professor, Pedagogical University of Cracow, Poland.

Piotr Razniak, Assistant Professor, Pedagogical University of Cracow, Poland.

Title: Forecasts for the Command and Control Function of Cities in the Context of a Potential Economic Crisis

11.45-12.00 Break

12.00-12.30

Rosemary Dawood, Assistant Professor, Waseda University, Japan.

Title: Between Gender Isolation and Political Socialization: Women's Activism in Contemporary Japan

12.30-12.45 Break

12.45-13.15

Stefano Neri, Associate Professor, University of Milan, Italy.

Title: Neither Public nor Private: Hybridization in Care Services - The Case of Italy

13.15-13.30 Break

13:30-14:00

Christian Brandstetter, Research Associate, Karlsruhe University of Applied Sciences, Germany.

Title: Transnational Entrepreneurship: A New Perspective on a Cooperative Approach towards Cross-Border Entrepreneurship

14.00-14.15 Break

14:15-14:45

Manuel Niever, Research Assistant, Karlsruhe University of Applied Sciences, Germany.

Title: Integration of Agile Approaches in SME's Product Development: Demand Analysis and Concept Development

14.45-15.00 Break

15:00-15:30

Scott Jones, Associate Professor, Stetson University, USA.

Title: The Value of Brand Archivalry

15.30-15.45 Break

15:45-16:15

Ronald Griffin, Professor, Washburn University and Florida A&M University, USA.

Title: Privacy

21:30-23:00

Greek Night

Tuesday 28 July 2020

08:00-10:00 Urban Walk

10:15-10:45

Maria Konstantaki, Head, Sport, Exercise, & Kinesiology Unit, ATINER & Research Fellow, UK.

Title: Exercise, Tourism and Environmental Sustainability: The Case of Plogging as a Niche Tourism Product

10.45-11.00 Break

11:00-11:30

Mihalıs Kuyucu, Associate Professor, Istanbul Aydin University, Turkey.

Title: The Differences between Television Watching and Digital Media Using Habits of Y and Z Generations

11.30-11.45 Break

11:45-12:15

Ville Korpela, PhD Candidate, Finland Futures Research Centre, University of Turku, Finland.

Petri Kuusisto, Founding Partner, Impact Innovation Institute Oy Ltd, Finland.

Title: Money with Purpose – Rethinking Strategic Asset Allocation through Impact Investing

12.15-12.30 Break

12:30-13:00

Ti Wu, PhD Student, National Taiwan Sport University, Taiwan.

Title: The Influence of Work Difficulty on the Response of College Female Volleyball Players to Receive and Spike Ball by Shifting

13.00-13.15 Break

13:15-13:45

Hsin-Huan Wang, PhD Student, National Taiwan Sport University, Taiwan.

Title: Backpack Carriage Loads to Lower Limb Kinetics

13.45-14.00 Break

14:00-14:30

Ilona Baumane-Vitolina, Associate Professor, University of Latvia, Latvia.

Title: Organizational Culture, Knowledge Management Processes and Organizational Innovation in SME's

14.30-14.45 Break

14:45-15:15

Yzan Saavedra, Independent Researcher, Spain.

Jose M. Saavedra, Professor, Reykjavik University, Iceland.

Title: Basic Anthropometric Measurements, Relative Age Effect, Goals Scored and Shooting Effectiveness in Youth Female Handball Players

15.15-15.30 Break

15:30-16:00

Insook Kim, Associate Professor, Kent State University, USA.

Title: Examining Pre-Service Teachers' Teaching Quality as a Function of Content Knowledge in Teaching Elementary Content

Iloņa Baumanē-Vitolina

Associate Professor, University of Latvia, Latvia

&

Madara Apsalone

PhD Student, University of Latvia, Latvia

Organizational Culture, Knowledge Management Processes and Organizational Innovation in SME's

Building on the theories of organizational culture, knowledge management and organizational innovation, this study assesses the impact of organizational innovation on business competitiveness and innovativeness. An empirical study of more than 600 economically active SMEs from various industries in Latvia was conducted in order to test the role of organizational culture and knowledge management processes on organizational innovation, including new organizational methods in business practices, workplace organization and external relations.

A sample of 600 SMES operating in various sectors has been used to gather data through a standardized questionnaire for analyzing the impact of organizational culture and knowledge management on organizational innovation through correlation analysis, analysis of variance, cluster analysis and multiple regression models.

Results confirm that the more a SME is characterized by an innovation enhancing organizational culture and knowledge management processes, the higher its likelihood of introducing organizational innovation. Professional development, employee initiative and participative decision-making processes, performance evaluation and engagement in long-term strategic planning were the main aspects of organizational culture related to organizational innovation, while creative discussions, openness to knowledge sharing, using employee knowledge in decision-making processes, and strategic assessment and updating the available knowledge were the main knowledge management processes related to organizational innovation.

Based on the empirical results, suggestions for further research and recommendations for SME leaders and practitioners are made. This study proposes insights that contribute to theoretical and practical discussions on promoting small businesses innovation in small economies.

Christian Brandstetter

Research Associate, Karlsruhe University of Applied Sciences,
Germany

Roman Kerres

Research Assistant, Karlsruhe University of Applied Sciences, Germany
&

Carsten Hahn

Professor, Karlsruhe University of Applied Sciences, Germany

**Transnational Entrepreneurship:
A New Perspective on a Cooperative Approach towards
Cross-Border Entrepreneurship**

The described research paper deals with cross-border cooperation in the early stages of companies in the area of developing a sustainable and scalable business model. The work is thus anchored in the intersection of the research fields of international Entrepreneurship and business model innovation. The paper is intended to open diverse perspectives for Entrepreneurs in the world's growth markets and foster international cooperation in a further globalizing world. For this complex form of cross-national cooperation, a methodological framework with helpful knowledge shall be developed. This work is considered relevant in view of the following developments in the fields of innovation and entrepreneurship. Global developments, such as the rapid growth of digitization, have a strong impact on the global economic situation as well as the field of Entrepreneurship (Kollmann et al., 2017). While on the one hand many people in Europe fear losing track of China and the USA when it comes to innovation, the associated potential for new, globally applicable Business Models is often neglected. Young growth enterprises have the courage to address them. However, they usually lack the resources and market access they need to implement their objectives. This new interpretation of Transnational Entrepreneurship (TE) demonstrates a cooperative approach, how young companies can successfully discover cross-border market opportunities together with other Start-Ups and implement new Business Models successfully. Until now, the entrepreneurial activities of immigrant individuals have been examined within the fairly young researched topic of TE (Drori et al., 2009; Gangadhar and Manohar, 2015). The study of literature has confirmed that many Startups, especially for reasons of resource constraints, seek and appreciate cooperation (Becker, 2012). An urge for internationalization can be observed as well. Particularly, in the development and activities on new

markets, local and internationally, the cooperation with partners is regarded as meaningful instrument and can increase the chances of success of the project. Digitally affine companies are often the focus of these studies. They are attributed with a strong urge for internationalization (Kollmann et al., 2017; Sternad et al., 2018). The literature reveals gaps in the already thinly studied field in the form of transnational cooperation between Startups and their practical implementation. This is where this paper emphasizes. The methodology of the Business Model Canvas is used as the basis for the theoretical framework describing the innovative cooperation model of young companies. The development of a cooperative business model has proven to be a core element of the research, which unites various elements of the cooperation partners and thus creates valuable synergies. In addition, practical findings are collected in a living laboratory at the Karlsruhe University of Applied Sciences. Together with an Indian start-up, a cooperative solution for the German market is being piloted. Therefore the two Start-Ups are working together as peer partners. These currently running use cases are providing further insights that complement and supply the theoretical foundation in a very valuable way.

Rosemary Dawood

Assistant Professor, Waseda University, Japan

**Between Gender Isolation and Political Socialization:
Women's Activism in Contemporary Japan**

Relying on the fact that men and women have different characteristics and thus different perspectives and demands, most of the progressive feminist scholars draw the same conclusion, that women cannot have their voices heard unless they have their own separated platform. Japan is a significant example, as regardless of women's engagement in the students strike in the late 1960s, women were never considered equal to their male counterparts but as only *onigiri dukuri* (rice ball makers). This explains the rise the of the progressive social justice movements in the 1970s exemplified in *Uman ribu* (women's lib,) where it was a women-only platform and completely isolated from other movements led by men. However, the anti-nuclear movement that emerged in 2011 in Japan, has introduced a different paradigm of women's activism where women called for their rights in a non-feminist platform that included a multitude of coalitions with completely different agendas. Drawing upon the mainstream literature of Japanese feminism and collective action theories, this paper will investigate the characteristics of women's movements in Japan in post 3.11 and how they create a new paradigm that is different in nature and structure than the conventional radical feminist movements in post-war Japan.

Konstantinos Gianikellis

Associate Professor, University of Extremadura, Spain

Miguel Rodal-Martinez

Researcher, University of Extremadura, Spain

Rafael Gutierrez-Horrillo, Researcher, University of Extremadura,
Spain

&

Santiago Gomez-Paniagua

Researcher, University of Extremadura, Spain

Characterization of Gait in People with Cerebral Palsy Using Inertial Sensors

Spastic diplegia is the most common form of childhood cerebral palsy. Despite this, there are still no unified classification criteria that allow grouping the different alterations and compensations suffered by the individual during gait, in order to maintain balance. It must be considered that one of the most common main characteristics in human movement is motor variability. Consequently, several attempts in the same task lead to different performance patterns, including kinematics, kinetics and muscle activation patterns

The objective of this work is the kinematic analysis of angles, velocities and angular accelerations in the sagittal plane of the lower body joints, to facilitate the diagnosis of the variations and observe the consistency of the locomotion motor pattern.

The gait pattern was analyzed in 10 participants (5 men and 5 women) using an inertial sensor system, Xsens MVN LINK. Which allows us to obtain the successive walking cycles of the subjects, in both extremities, along the 10 records made for each one. The main norm of inclusion was to have a medical diagnosis of spastic diplegia and to present movement and / or posture alterations, while preserving the ability to walk autonomously according to the criteria of the "Gross Motor Function Classification System".

Descriptive statistic was carried out from complete gait cycle data. Variables studied were angle ($^{\circ}$), angular velocity ($^{\circ}/s$) and angular acceleration ($^{\circ}/s^2$) of flexion-extension movement of the hip, knee and ankle (left and right). Results obtained were the following: Left Hip: $0.96 \pm 4.69^{\circ}$, $0.04 \pm 22.85^{\circ}/s$, $2.62 \pm 267.16^{\circ}/s^2$. Left Knee: $-0.16 \pm 10.82^{\circ}$, $-0.02 \pm 15.84^{\circ}/s$, $-1.01 \pm 229.22^{\circ}/s^2$. Left Ankle: $1.43 \pm 7.58^{\circ}$, $-0.06 \pm 16.96^{\circ}/s$, $-0.46 \pm 254.58^{\circ}/s^2$. Right Hip: $-5.87 \pm 5.57^{\circ}$, $0.12 \pm 23.97^{\circ}/s$, $-0.13 \pm 305.99^{\circ}/s^2$. Right Knee: angle $-0.97 \pm 6.14^{\circ}$, $0.16 \pm 25.16^{\circ}/s$, $-1.29 \pm 332.41^{\circ}/s^2$. Right Ankle: $4.24 \pm 7.51^{\circ}$, $0.24 \pm 24.42^{\circ}/s$, $4.23 \pm 289.21^{\circ}/s^2$.

Results confirm a certain homogeneity in the scheme of walking along the cycle, in relation to angular speeds and accelerations. Taking into account the frequent alterations caused by the CP in the participants, increased variability during certain phases can serve as an identifying element of the primary dysfunctions or compensations. Therefore, and taking into account all of the above considerations, this study represents a first approximation of both angular velocity and acceleration variables, and the use of inertial sensor systems in subjects with spastic diplegia during the human locomotion sequence.

This manuscript has been supported by the Government of the Community of Extremadura, Grant Ref. GR18191 and project Grant Ref. IB16198; and the project "Centro de Tecnificación del Deporte Paralímpico - DEPATECH 2014-2015".

Ronald Griffin

Professor, Washburn University and Florida A&M University, USA

Privacy

Some people wallow in depravity because it is profitable. They are empty vessels; beautiful to look at but monstrous down deep. They look at the world with a jaundiced eye and treat civil societies with contempt. They are users who are bored with their surroundings. They are incapable of love and desire and indifferent to ugliness and beauty. They are property for hire in people's lives—props at times, tools, and actors in others—capable of doing awful things. Ayn Rand wrote about them in a 1930's book entitled *Fountainhead*. What she saw then is no less true now. In 2020 the English-speaking world is in flux; drifting from a Cartesian way of doing things to a digital world view; and the folk, previously mentioned, have migrated to this new world and set-up camp (Facebook, Google, Huawei, Apple, Disney, and Universal Entertainment). To no one's surprise, these entities and those who run them can undermine one's sense of self, self-determination, freedom, and privacy. This paper takes a stab at corralling what they do (see the California, Illinois, and Canadian Privacy Acts). It highlights what can be done to individuals (the hackers) with the National Stolen Property Act, Economic Espionage Act, and the Consumer Fraud and Abuse Act. Though the paper changes nothing *per se*. It adds to the font of knowledge about how man copes with problems in the cyber-age. I am reminded by current events that the world hasn't changed a bit. People with an appetite for money and property are using government, corporations, and technology to establish dominance. It comes down to the age-old struggle between those who believe in Hobbes and those who believe in Locke. If entities can produce better results than Man can produce for himself, in a state of nature, we should foster and defend what those entities do. If they cannot produce something better, we should tear it down.

Scott Jones

Associate Professor, Stetson University, USA

The Value of Brand Archrivalry

Porter's Five Forces recognizes factors that determine whether or not a business can be profitable in relation to other competitors in an industry. One such force is competitive rivalry which considers the intensity of competition within an industry. Competitive rivalry is high when there are a small number of competitors, the industry is growing and switching costs for consumers are low. Under such conditions profitability in the industry is reduced primarily through pricing wars and additional investment in promotional activities; strategies commonly adopted to retain or capture market share. The following conceptual paper is not intended to dispute this generalization but to introduce a potential boundary condition of Porter's Model whereby an industry characterized by high competitive rivalry may lead to greater long-term profitability. Derived from the Greek verb "archein" the prefix "arch" means "chief". The following paper adopts the term "archrival" to refer to chief brand competitors in a market. Archrivalry is commonly used to describe relationships in competitive sport and recent research reveals the value created through such relationships. Sport archrivalries increase revenue from ticketing, sponsorship, licensing and media. Importantly, the revenue enhancement rarely benefits the two archrivals alone but all competitors and the governing bodies associated with the sport. Yet, archrivalries are found in a number of industries. In 2013, Forbes magazine generated a list of the 50 greatest brand archrivalries including Pepsi vs. Coke, Canon vs. Nikon, and General Motors vs. Ford. Based on Porter's model such rivalries should hurt industry profitability. While additional investment in advertising and price cutting may be attributed to the high competition; might these archrivalries also increase profitability and firm value in other ways? Brand equity is defined as the commercial value derived from consumer perceptions of a brand name. A number of factors contribute to brand equity and each may be enhanced if the brand is viewed by consumers to be part of an archrivalry. Brand awareness, brand associations and consumer loyalty are contributors to equity and this paper posits each may be strengthened for brands recognized to be part of an archrivalry. One tactic which spawns the formation of archrivalry is comparative advertising. Yet, comparative advertising may serve to expand brand awareness and strengthen brand associations for both firms. Comparative advertising may also

enhance loyalty for both competitors by creating in-group, out-group biases similar to those seen amongst fans of competitive sport. The brand equity associated with Apple and Microsoft may be partially attributed to consumer loyalty but loyal Apple consumers may also self-describe as anti-Microsoft (and vice versa). If archrivalries enhance brand equity it is important to emphasize the rivalry likely requires two strong brands. In sport, archrivalries only exist when each competitor experiences success. If one rival dominates the competition the archrivalry fades. Outside of sport, a question of empirical interest is whether a brand's equity (as derived from distinctive positioning and consumer loyalty) suffers if an archrival's equity is damaged?

Insook Kim

Associate Professor, Kent State University, USA

Examining Pre-Service Teachers' Teaching Quality as a Function of Content Knowledge in Teaching Elementary Content

Field-based intervention studies indicate that physical education (PE) teachers can improve teaching quality by promoting in-depth content knowledge (CK) (Kim, 2015; Kim et al., 2018; Iserbyt, Ward, & Li, 2015; Iserbyt, Ward, & Martens, 2015; Sinelicov, Kim, Ward, Li, & Curtner-Smith, 2015; Ward, Kim, Ko, & Li, 2015). Within an existing line of inquiry on the relationship between CK and teaching effectiveness, the current study was to examine how pre-service teachers (PTs)' effective teaching behaviors that enhance student learning differ as a function of CK in teaching elementary content.

Twenty-one PTs (17 males and four females) who enrolled in the elementary content course participated in this study. The participants' three CK tests and two teaching exemplars that demonstrate the best teaching performances in teaching elementary content were collected. Using the results of the three CK tests, the PTs were divided into three groups: (a) high-CK ($n = 7$), (b) medium-CK ($n = 8$), and (c) low-CK ($n = 6$). In total, 36 teaching exemplars (12 lessons per group) were included for analysis by excluding some non-typical PE content. Four teaching behaviors: (a) developmentally/instructionally appropriate task selections, (b) visually/verbally mature task representations, (c) relevant inter-task adaptations for entire class, and (d) relevant intra-task adaptations for small groups or individuals were coded while watching the videotaped teaching exemplars. Using SPSS v 24.0 (SPSS, 2016), the MANOVAs and univariate ANOVAs were administered for data analysis.

The MANOVA result was significant for the CK groups, Pillai's Trace, $F(8, 62) = 3.962$, $p = 0.001$, and $\eta^2 = 0.338$, indicating a difference in the four teaching variables between the CK groups. The univariate F tests showed there were significant differences between the CK groups for task selections: $F(2, 33) = 11.620$, $p = 0.000$, and $\eta^2 = 0.413$, task representations: $F(2, 33) = 21.302$, $p = 0.000$, and $\eta^2 = 0.564$, inter-task adaptations: $F(2, 33) = 9.852$, $p = 0.000$, and $\eta^2 = 0.374$, and intra-task adaptations: $F(2, 33) = 3.301$, $p = 0.049$, and $\eta^2 = 0.167$. LSD post-hoc tests indicated significant differences in the means of task selections ($p = 0.000$), task representations ($p = 0.000$), inter-task adaptations ($p = 0.001$), and intra-task adaptations ($p = 0.016$) between the high-CK and

the low-CK groups. There were statistically significant differences in the means of task selections ($p = 0.001$), task representations ($p = 0.000$), and inter-task adaptations ($p = 0.000$) between the high-CK and the medium-CK groups. However, there was no statistically significant difference in the mean of intra-task adaptations ($p = 0.118$) between the high-CK and the medium-CK groups. Additionally, there were no statistically significant differences in the means of task selections ($p = 0.396$), task representations ($p = 0.665$), inter-task adaptations ($p = 0.870$), and intra-task adaptations ($p = 0.356$) between the medium-CK and the low-CK groups.

The results of the current study provide significant evidence to support the essential role of strong CK possessed by PTs and its impact on high-quality teaching behaviors in teaching elementary PE content. Teacher educators need to find better ways to support PTs' in-depth CK development in physical education teacher education programs.

Maria Konstantaki

Head, Sport, Exercise, & Kinesiology Unit, ATINER & Research Fellow,
UK

**Exercise, Tourism and Environmental Sustainability:
The Case of Plogging as a Niche Tourism Product**

Niche tourism has emerged in recent years as an attractive alternative to mass tourism. It is the umbrella term that describes a range of specific products that can be tailored to meet the needs of a particular audience/market segment. Niche tourism is focussed on very precise small markets and it entails unique features such as small-scale operations, implied care and selectivity and a suggested sensitivity of tourists. These features provide a more apt fit with environmentally sustainable and socially caring tourism (i.e. geo-tourism, gastronomy tourism, medical tourism; Robinson and Novelli, 2005). The types of tourism that have been coined environmentally sustainable and linked to physical and mental wellbeing have included yoga tourism (Lehto et al., 2005), rural tourism (Roberts and Hall, 2004), and cycling tourism (Lamont, 2009). However, these niche tourism activities even though they are good examples of environmentally sustainable tourism, they have an indirect benefit on the natural environment. Plogging, is a new fitness trend that has literally taken the world by storm. Since its inception by Swedish Erik Ahlström in 2016 it has made its appearance around the world as an environmentally friendly practice with direct impact on the natural environment that also has benefits for health and wellbeing. Plogging involves a combination of exercise (running, jogging or walking) with picking up litter (Swedish term, plocka upp). From the US to India and beyond, plogging is a new, socially caring and environmentally friendly way to clean up the natural environment and promote health and wellbeing in local communities. Due its increasing popularity, it is envisaged that plogging will also make its appearance as an organised activity within the niche tourism sector.

Ville Korpela

PhD Candidate, Finland Futures Research Centre, University of Turku,
Finland

&

Petri Kuusisto

Founding Partner, Impact Innovation Institute Oy Ltd, Finland

**Money with Purpose - Rethinking Strategic Asset
Allocation through Impact Investing**

The uncertainty and fundamental changes happening in today's world, from climate change to epidemic outbreaks leading to rapid disruptions in the capital markets, are seldom incorporated into our investment decisions as part of strategic asset allocation. Today's financial industry is driven by a singular objective: maximizing shareholder profits over the short term. In other words: using money to make money. A new breed of impact investors is emerging. Impact investors intend to use capital primarily to create change dynamics that propel a system in a purposeful direction. Current approaches to strategic asset allocation do not integrate the values and visions of the stakeholders as part of the SAA policies. Finance and investing assume a relatively stable world and risk is assumed to be a one-point-in-space, disregarding the view that there exist multiple possible futures, which all should be considered as part of strategic asset allocation, in order to create the kind of future which is good for the society as a whole. In order to rethink the way we view institutional investing, the authors suggest a Sustainable Portfolio Theory (SPT), in order to adequately incorporate long term value creation in strategic asset allocation. The SPT integrates tools used in futures studies and strategic foresight, enabling a holistic approach to strategic asset allocation, as well as looking at action options based on multiple future scenarios, instead of one baseline model. Every forward-looking strategy should begin with the definition of purpose or intent. Such an Investment Belief or Purpose Statement should incorporate the values and organizational culture of investors. In this article, we plan a new framework for sustainable impact investment, highlighting the move from the short-term biased shareholder model to the broader stakeholder model, aimed at long-term value creation for the wider community. The authors of this article believe in a future where investors can align their purpose and values with their investments relying on solid evidence based data, which integrates financial risks and returns and social/environmental risks and returns. These investors are guided by

sustainable portfolio managers and advisors who have experience in advising them about integrating investment beliefs with suitable investment and impact options and how they connect with the investors' impact and financial objectives. In addition, utilizing the Sustainable Portfolio Management framework, together with the tools of strategic foresight and futures research methodologies, institutional investors who have been previously skeptical about impact investing will be able to make more informed long term asset allocation decisions, understanding the value and viability of producing a lasting long term impact.

Mihalis Kuyucu

Associate Professor, Istanbul Aydın University, Turkey

The Differences between Television Watching Habits and Digital Media Using Habits of Y and Z Generations

The aim of this study is to conduct a descriptive research on television watching habits of Y and Z generations living in Turkey. In this context, how two different generations use the media and how media uses differ between the two generations are examined. In the research that developed four hypotheses, the answers were sought for the questions: Do the participants' motivation to watch TV vary according to their gender? Do digital platform watching motivations vary according to their gender? Do television watching motivations vary according to the generation? and Do digital platform watching motivations vary according to the generation? In the first part of the study, a conceptual research has been conducted on the theory of generation concept in a theoretical framework. In the second part, previous research on television watching habits of generation Y and Z has been examined, compiled and analyzed. In the application part of the research, a media usage questionnaire was applied to individuals belonging to generation Y and Z and this questionnaire data was evaluated. In the study, factor analysis was done and the factors affecting the motivation of watching television in both generations were determined. As a result of the research, it was determined that the representatives of Generation Y prefer to watch news programs, foreign cinema films and talk show chat programs respectively on television, while Generation Z prefers to watch foreign movies, music / entertainment programs and news programs mostly on television. The most important TV watching motivation of the members of Generation Y is "rest and fun". In the other hand the factor that affects the motivation of watching TV in generation Z is "friendship".

Stefano Neri

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Neither Public nor Private: Hybridization in Care Services - The Case of Italy

In the last decade, in many Southern European countries, austerity policies in public finance following the economic and financial crisis accelerated long-lasting trends to privatization in the care sector. According to the literature on industrial relations and labour market (Grimshaw et al. 2015), outsourcing is explained by the possibility, by public administration, to exploit the differences existing in the employment regulation and working conditions between the public and the private sector. However, in Early Education and Care (Ecec) and also social (especially elderly) care services, outsourcing to private providers has often prompted the fierce opposition not only by service staff and unions but also by local communities. In the case of Italy, this often pushed Italian municipalities to transfer directly run care services to “public-private”, semi-autonomous organizations, instead of outsourcing them to purely private organizations. These entities, called «special firms» or «foundations», share some features of both public and private organisations, as they are at the same time controlled by the municipalities, but provided with some managerial tools more similar to those of private firms. Moreover, they may shift from public to private sector collective labour agreements. The paper first briefly illustrates the distribution of public and private providers in educational and social care in Italy, and its recent evolution, by elaborating quantitative official data. Then it aims at addressing three issues, by means of empirical evidence based, on one hand, on documentary analysis and semi-structured interviews with key informants at both national and local level, on the other hand, on the analysis of some case studies located in Emilia-Romagna, a Region with a long tradition in high quality social services. In this way, the paper first identifies some explanations for hybridization, showing that social and political factors need to be taken into consideration, along with institutional and administrative local traditions. Second, evidence from case studies highlights that hybrid organizations could be neither a temporary shift to “complete” privatization nor a mere trick to keep the services public, but they could represent a new kind of provider, with an employment regulation which is increasingly distinct from both public and private providers. Finally, in the conclusions, the paper calls for a global re-thinking in care service provision, after that the

pandemic drew attention on many critical issues existing both in public and in private elderly and social care. This re-thinking should include a re-consideration of the role of hybrid organizations.

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Integration of Agile Approaches in SME's Product Development: Demand Analysis and Concept Development

Innovation is crucial for the economic success of any company independent of size, industry or location. Especially in a digital and uncertain world, in which it is postulated that in the course of the next few years almost every company will be challenged by a market change for which there is no "precedent" yet and in which the question for the company will be "change or fail", innovation seems to be the sole possibility for incumbents to remain successful (Hamel et al., 2007). However, innovation needs to be considered in a more differentiated way. For instance, a distinction can be made between incremental and radical innovation (Leifer et al., 2006). While incremental innovation is the improvement of existing products or services within existing business models, radical innovation stands for the exploration of completely new products and services which also need new business models. The more radically innovative new products, services or business models are, the more likely these new products are to succeed in the market, if they are solving relevant customer problems (Cooper, 1990). Furthermore, with increasing radical innovativeness of new products, services or business models the differentiation from competitive products is increasing as well, leading to a long-term competitive advantage (Christensen et al., 2015). While much research has been done to foster incremental innovation (e.g. Cooper, 1990), only little is known about the way of incumbents on innovating radically. Especially for small and mid-sized companies there is only little help to increase the ability and probability to innovate radically and therefore remain successful in the digital area. Welsh et. al (1982) already stated, SME are not miniature versions of large corporates. Meaning that methods and techniques, that are working for large corporates do not necessarily work also for small and mid-size companies. To address the concern of radical innovations in small and medium-sized companies, a framework called Radical Innovation Engineering (RIE) was designed and validated, based on entrepreneurial approaches and innovation coaching. The RIE framework helps companies to analyse their current market situations, to identify entrepreneurial chances and to ideate on

new ways how to solve customer problems based on a start-up like approach. As the uncertainty of radical ideas is higher than of incremental innovation, the RIE framework also helps incumbents to validate business ideas with limited input and resources. With the aim of increasing the ability of SME to innovate radically, the present research focuses on the early stages of innovation activities within the RIE framework.

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Basic Anthropometric Measurements, Relative Age Effect, Goals Scored and Shooting Effectiveness in Youth Female Handball Players

The objectives of this study were (i) to know the relationship between basic anthropometry measurement (height, weight and body mass index), age and individual performance (scored goals); (ii) to know the differences in height, weight, body mass index and age in function of player position; (iii) to determine whether there is a relationship between the relative age effect and the final classification of the teams, player's positions, number of goals scored, and shooting effectiveness, and (iv) to determine whether there are differences in the number of goals scored and shooting effectiveness depending on the final classification and player's positions. The study subjects were 380 players who took part in the 2018 Women's Youth World Handball Championship. The independent variables were height, weight, body mass index, relative age effect, and the number of goals and shooting effectiveness of each type of shot (6-m, 7-m, 9-m, wing fast break, breakthrough). The dependent variables were the player's position and the team's final classification. To investigate the relationship between weight, body mass index, age and individual performance, r Pearson was performance. To know the differences in weight, body mass index and age in function of player position, one-way analysis of variance (ANOVA), with a subsequent Tukey post-hoc test were used. To investigate the relative age effect and the team's final classification, player's position, goals scored, and shooting effectiveness, contingency tables were drawn up and subjected to a chi-squared test. The dependence of the differences in goals and shooting effectiveness on the team's final classification and the player's position was studied by means of an ANOVA with a Tukey post hoc test. Only weight and age showed relation with scored goals ($r=-0.142$ and $r=0.110$; $p<0.05$ respectively). There were differences in weight, body mass index and age depending on the player's position ($p\leq 0.020$). For the sample overall, there was no RAE, only an association between the classification and the year of birth, with more players born in the senior year in the teams ranked from 1st to 8th place than in those classified

from 9th to 24th place ($\chi^2=13.703$; $p=0.045$). The teams classified from 1st to 4th had greater numbers of several variables (total goals, total shots, 9-m shots, fast break goals and fast break shots). There were differences in goals and shooting effectiveness depending on the player's position with exception of total goals.

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Backpack Carriage Loads to Lower Limb Kinetics

Purpose: Wearing backpacks is prevalent in modern living patterns, no matter hustling to school or work, this phenomenon can be easily observed. Thus, the purpose of this study was aimed to investigate lower limb kinetics of walking and running while wearing backpack. **Methods:** This study recruited 14 participants. None of any participants were involved in lower limb nerve, muscle, skeletal, ligament and tendon injuries in the past six month before the experiment, hence, each of them are required to process regular exercise habit. An AMTI force plate and four Cortex dynamic high speed cameras were applied to investigate lower limb kinetics in the condition of walking (1.5m/s) and running (3.5m/s) with and without wearing backpack. The carriage load was set in the matter of 1/10 of the participants' body weight. During the experiment, the participants were asked to keep their cadence matched the rhythm of the metronome. The two-way ANOVA was carried out at the first, if the interaction effect reached significant level, the followed up main effect analysis would be processed. The significant level was defined as $\alpha=0.05$. **Results:** Regarding lower limb kinetics, interaction effect of maximal force is the only parameter that reached significant level. The results of main effect analysis indicated that adding loads in walking trial increased maximal force ($P=0.001$). Regardless of adding loads, maximal force of running was constantly higher than walking ($P=0.000$). Furthermore, no significance was observed in running with or without waring backpack. **Conclusion:** Increase in loads and speed contributes in lower limb maximal impact force. The higher the maximal force, the higher the chances of involved in injuries.

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Forecasts for the Command and Control Function of Cities in the Context of a Potential Economic Crisis

Existing conceptual models of cities take into account their main functions, but what is increasingly more important is the question: What happens when these functions decline? In a global world, what is important is not only a city's rank in a good economy, but also its rank in a bad economy battering its main functions. Another relevant issue is the ability of a city to resist economic crisis in the future. On the basis of a city's command and control function, the authors propose a new approach to the forecasting of a city's main functions in the face of any potential crisis that would weaken its main functions.

The paper attempts to answer the following question: How is the global rank of a city expected to change in the face of a deep crisis in its dominant economic sector? On the basis of the world economic center conceptual model, a crisis is defined as a decline in the financial performance of companies in the dominant sector that defines a city's command and control function (C&C). In the event of crisis in the dominant sector, its component companies lose a substantial amount of economic significance. The analysis in the paper illustrates the rank of a city in terms of its number of corporate headquarters and main economic sectors. The paper is focused only on major metropolitan areas with more than three main sectors. It also provides an index of stability (IS) for each studied city for a scenario where the most important sector of the economy is removed from the estimation of the C&C function of a city. This approach yields not only the economic potential of a city, but also illustrates its development pathway or strength of economic specialization.

An exponential smoothing algorithm (ETS) was used to generate a forecast for Beijing for 2028, which is the year that the city is expected to match Tokyo's C&C significance in the world (both cities at about 5.3 points). However, there is a 95% probability that this event will occur already in 2026 – based on a normal distribution analysis – assuming maximum growth or in 2030 assuming minimum growth. Forecasts indicate that leading European cities, and to some extent U.S. cities, will continue to lose global significance in the years to come. Highest

growth is expected over the next decade for Asian cities – their growth will match the decline of European cities. Over the same period of time, the rate of decline of North American cities will be only half that of European cities.

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The Influence of Work Difficulty on the Response of College Female Volleyball Players to Receive and Spike Ball by Shifting

The purpose of this paper is to explore the influence of work difficulty on the reaction time, motor time and total reaction time of college female volleyball players when they receive and spike ball by shifting. This study recruited 8 participants from college women volleyball players, none of any participants were involved in lower limb nerve, muscle, skeletal, ligament and tendon injuries in the past six month before the experiment, their average ball age was 9.75 ± 1.48 years, average age is 20.75 ± 0.7 years old, the average height is 163 ± 5.07 cm, the average weight is 59.25 ± 7.7 kg, and their handedness is right hand.

This experiment uses three sets of 3D accelerometers and four sets of EMG sensors (Noraxon) to measure motor information during the receive and spike ball to capture the time of reaction. The players needs to face the test each side of three ball, one round for 12 balls, test for two rounds, 24 balls in total [handedness, non-handedness (non-roll), handedness, non-handedness (roll)]. The two-way ANOVA was carried out at the first, if the interaction effect reached significant level, the followed up main effect analysis would be processed. The significant level was defined as $\alpha=0.05$.

The results of this study show that there is no significant difference in RT, MT and TRT between the subjects with different direction and difficulty when they receive and spike. Therefore, it can be concluded that the college female volleyball players with more than 9 years of ball age have certain maturity in the skill level of receiving and spike, and are not easy to be affected by direction and difficulty.