

<b>Institution: UNIVERSITY OF BIRMINGHAM</b>
<b>Unit of Assessment: C26 Sport &amp; Exercise Science, Leisure &amp; Tourism</b>
<b>Title of case study: Empowering climate training in sport, dance, and PE: Delivery, effectiveness and changes to professional standards</b>
<p><b>1. Summary of the impact</b></p> <p>A long-standing programme of research contributes to health and welfare benefits (e.g., decreased intentions to dropout of youth sport) and is having impact on professional standards and practitioners in the domains of sport, dance and physical education (PE). A family of training programmes (Empowering Coaching™ workshops) has been developed and delivered nationally and internationally. The programme centres on helping leaders to understand the principles of quality motivation and also strategies that can create more adaptive learning environments leading to sustained engagement and well-being for athletes/students/dancers. The research has informed extensive continuing professional development programmes for coaches and teachers in sport, PE and dance organisations.</p>
<p><b>2. Underpinning research</b></p> <p>Contemporary theories of motivation emphasise social contextual factors and motivational processes pertinent to sustained engagement and optimal versus diminished functioning in achievement settings. Achievement goal theory (AGT) which was initially developed in the context of education, argues that the demonstration of competence is central to variability in the quality of achievement striving, and assumes that there are two different lenses through which learners can judge their competence level (namely, via a task- and/or ego-involved manner). AGT also points to the importance of the psychological environment created by teachers (i.e., the degree to which the motivational climate operating is task- and ego-involving) for students' levels of task and ego involvement. Drawing from Self Determination Theory (SDT), optimal engagement and well-being are autonomously motivated rather than controlled. Greater autonomous motivation is dependent on perceptions of competence but also the degree to which individuals perceive their needs for autonomy and relatedness (with others) to be satisfied. SDT points to additional key motivation-related characteristics of the social environment, e.g., the degree to which it is autonomy- and socially-supportive and controlling.</p> <p>A systematic programme of internationally-leading research conducted by Professor Joan Duda and her PhD students/collaborators at the University of Birmingham between 1992 to 2013 (published 2001 – 2013) generated the following outcomes which underpin the impact described in this case study:</p> <p>In a highly cited (~ 500 times) theoretical paper including a review of the relevant research (see R1 below), it was demonstrated that the tenets of AGT are applicable to understanding motivational processes in the sport domain. In particular, research was reviewed which indicated that the task- and ego-involving features of the climate created by coaches are significantly related to differences in athletes' motivation and associated cognitive, affective and emotional responses. In a longitudinal study (R2), evidence was provided regarding the psychological mechanisms by which coach-created climates, varying in their task- and ego-involving characteristics, predict athletes' reported well-being. Reflecting an initial theoretical and empirical integration of constructs and assumed psychological processes embedded in AGT and SDT, results revealed that changes in the task- and ego-involving features of the motivational climate across a competitive season predicted changes in athletes' emotional responses (e.g., feelings of vitality) via changes in the satisfaction of their basic psychological needs for competence, autonomy and relatedness. In support of SDT, research has indicated that the autonomy supportive features of the climate are also predictive indicators of athletes' welfare via their implications for need satisfaction (R3).</p> <p>Further integration between AGT and SDT is reflected in research that considered the characteristics of the prevailing motivational climate from the perspective of both theoretical models (R4). Extending this line of work into the context of physical education (PE), the findings</p>

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revealed that perceived autonomy-supportive teacher behaviours, and to a lesser extent perceptions of a task-involving climate in PE classes, positively predicted students' need satisfaction which corresponded to greater autonomous motivation. Autonomous (or self-determined) motivation was also found to positively predict students' leisure-time physical activity intentions. Supporting the application of AGT and SDT to the domain of dance, subsequent research (R5) revealed that the motivational climate created by vocational dance teachers corresponded to differences in dancers' well being as a function of the degree to which their psychological needs were satisfied.

In the contexts of sport, PE and dance, this line of research led by Professor Duda points to the need for the development of theoretically grounded interventions to promote adaptive motivational climates in these settings. With respect to intervention approaches, the conceptual and empirical advancements epitomised in the outputs referenced above (R1-6) have highlighted the need for a more comprehensive and integrated conceptualisation of both the motivational climate and the role of psychological need satisfaction in sustained participation and associated well-being. A description of such an integrative conceptual framework, which draws from both AGT and SDT, and an account of how this framework provides the bases for the development of the Empowering Coaching™ training programmes, is described in (R6).

The research described above provided the foundation for the European-Commission FP7 funded PAPA project ([www.projectpapa.org](http://www.projectpapa.org); 2009 - 2013) which focused on the delivery and evaluation of the Empowering Coaching™ programme across 5 European countries and involved the development of a collaborative research consortium of 8 university partners (6 outside the UK).

**Key Researchers:**

Professor Joan Duda: Principal Investigator in this research programme and developer of the Empowering Coaching™ family of training programmes which has evolved via her world-leading research, funded projects and applied activities in this area since the early 1990s.

Research Fellows: Dr Eleanor Quested and Dr Paul Appleton have contributed to the customising of the programme for grassroots football and implementation of the Empowering Coaching™ programme in the PAPA project.

**3. References to the research**

- R1) Duda, J.L. (2001). Goal perspectives research in sport: Pushing the boundaries and clarifying some misunderstandings. In G.C. Roberts (Ed.), *Advances in motivation in sport and exercise* (pp.129-182). Champaign, IL: Human Kinetics. **[Available from HEI on request]**
- R2) Reinboth, M., & Duda, J.L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise*, *7*, 269-286. **[DOI:10.1016/j.psychsport.2005.06.002]**.
- R3) Adie, J. W., Duda, J. L. & Ntoumanis, N. (2008). Autonomy support, basic need satisfaction and the optimal functioning of adult male and female sport participants: A test of basic needs theory. *Motivation and Emotion*, *32*, 189-199. **[DOI: 10.1007/s11031-008-9095-z]**.
- R4) Standage, M., Duda, J.L. & Ntoumanis, N. (2003). A model of contextual motivation in physical education: An integration of self-determination and goal perspective theories in predicting leisure-time exercise intentions. *Journal of Educational Psychology*, *95*, 97-110. **[DOI: 10.1037/0022-0663.95.1.97]**.
- R5) Quested, E., & Duda, J.L. (2010). Exploring the social-environmental determinants of well- and ill-being in dancers: A test of Basic Needs Theory. *Journal of Sport and Exercise Psychology*, *32*, 39-60. **[DOI: 10.1177/1359105310364170]**.
- R6) Duda, J.L. (2013). The conceptual and empirical foundations of Empowering Coaching™: Setting the stage for the PAPA project. *International Journal of Sport and Exercise Psychology*. **[DOI: 10.1080/1612197X.2013.839414]**

**Research Funding:** From March 2009 to July 2013, approximately £1,200,000 of funding has been secured to support this research at the University of Birmingham [e.g., Duda, J.L. (PI); "Promoting Adolescent health through an intervention aimed at improving the quality of their

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participation in Physical Activity (PAPA)". EU Commission Seventh Framework Programme (Health), April 2009 –September 2013; €2,980,686.00.]

**4. Details of the impact**

Impact has been realised via Programme Delivery of Empowering Coaching™, Teaching™, and Dance™ workshops to an extensive number and range of participants in the UK and abroad. Within the PAPA project specifically and in collaboration with the respective football associations (including the PFA, FA-Norway, Hellenic FF, Real Federacion Espanola, and UEFA), 46 tutors were trained to deliver the Empowering Coaching™ programme in England, France, Greece, Norway and Spain. One hundred and fifty workshops (2010-2012) have been delivered to 1367 grassroots football coaches across these 5 countries with over 13,000 participants [see source 1 below]. Further uptake (at the national level) of the Empowering Coaching™ programme is exemplified in a contract (July 2013) with the Football Association [2] to deliver workshops to Level 1 tutors, Tesco Skills Coaches, and Regional Development Managers and an agreement with England Athletics (March 2013) to deliver the workshop to 15 youth development coaches. An Empowering Teaching™ workshop was also delivered to 30 Welsh PE teachers in June 2012. In dance, 5 Empowering Dance™ workshops have been delivered to 45 staff members from two major vocational dance schools in the UK (the Royal Ballet School, Nov 2012; Elmhurst School of Dance, Nov 2012 - Jan 2013), to 27 of the top Artistic Directors and choreographers associated with professional dance companies from around the world (DanceEast Rural Retreat, Jan 2013), and to 65 professional dancers from the English National Ballet. All workshops stimulated practitioner debate on leadership behaviours that are likely to promote or compromise quality engagement in sport, PE and dance.

There is strong evidence of high levels of satisfaction with the service delivered and, significantly, within the PAPA project 428 grassroots coaches participating in the workshop indicated on a 5-point scale that they felt they learned how to integrate the principles presented into their practice (score = 4.34). Impact has also been realised in term of improved health and welfare outcomes. For example, initial quantitative findings across the 5 PAPA countries (controlling for baseline values, age, and gender) have indicated that players whose coach participated in the Empowering Coaching™ workshop found the climate to be less marked by maladaptive features and had lower intentions to dropout at the end of the season than players whose coaches did not receive this training (R2). Empowering climates also significantly and positively predicted enjoyment, self-esteem and objective levels of physical activity in young footballers (R2). Focus groups (conducted 2010 – 2012) involving 86 English and Spanish grassroots football coaches, who participated in the Empowering Coaching™ workshop, revealed that coaches changed what they did and said when in interactions with their young players in order to be more empowering [1].

In order to extend reach, details of the training programme have been published in practitioner-centred publications. Examples include "Empowering Coaching: The future of dance education?" in Dance UK News, Issue 80, Spring 2011; "Empowering Coaching™: A critical contributor to the future of coach education in hockey" in PUSH, 2012, 40, p 41 – 42; "For the love of dance" in Arts Professional, Feb 2013, and publications targeted at policy makers (EU Public Health Review, March 2012). Social Media has also been utilised to maximise reach regarding the significance and potential application of the Empowering Coaching™ workshops. A website ([www.empoweringcoaching.co.uk](http://www.empoweringcoaching.co.uk)) has been developed with versions live in French, Greek, Norwegian and Spanish. In addition, Empowering Coaching™ has a Facebook page and Twitter feed, and all web-based outlets host videos specifically created to further exploit the programme, and also highlight the results stemming from the PAPA project.

The reach of the Empowering Coaching™ programmes and related research are contributing to strategic discussions about fundamental changes to professional training. Negotiations are in progress with The FA [2] and England Athletics regarding the incorporation of the Empowering Coaching™ programme as a required element of training for all football and athletics coaches working with young people. A Memorandum of Understanding has been signed with the University of Valencia [3] and contractual discussions are underway with this and other PAPA Consortium partners, on future exploitation of the training programme for international sport governing bodies.

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Serving as a potential dissemination outlet for future programme delivery in this country, a Memorandum of Understanding was signed with SportsCoach UK (April 2011)[4]. Presentations on the Empowering Coaching™ programmes and deliberations regarding future integration of this training into coaching awards have been undertaken with a broad array of additional key stakeholders. This includes organisations from the UK such as Welsh Hockey, English Hockey, Welsh Football, England Athletics, British Gymnastics, England Cricket, Netball, Handball, Judo, Golf, British Cycling, English Federation of Disability Sport, Battleback Disability sports organization, COMPASS and Street Games). Internationally, [5] presentations have been made to Physical Education and National Governing Bodies' coach education leads from Ireland, Mexico, Poland, Qatar (Aspire Academy), Turkey, Taiwan (including the Deputy Minister of Health/Sport) and Brazil (including potential academic and sport partners such as the University of Sao Paulo, Sao Paulo State University, and the Sao Paulo Football Club). In evidence of even wider reach, workshops have also been delivered to 40 child welfare/protection officers at a recent conference of the Child Protection in Sport Unit of the National Society for the Prevention of Cruelty to Children (NSPCC) and discussions are taking place on how Empowering Coaching™ can contribute to this organisation's mission to end abuse of children in sport settings.

Two-year contracted work with Sport Wales (commenced May 2013; [6]) entails the development of a tailored adaptation of the existing Empowering Teaching™ programme specifically for secondary school PE teachers in Wales. The workshop will be further revised based on pilot work with 60 teachers, and 4 tutors will be trained to deliver Empowering Teaching™ to PE teachers as a form of CPD and in the planned post-project roll out of Empowering Teaching™ in Wales. A collaborative relationship with Dance UK [7] has been developed for further dissemination of the workshop as CPD for dance instructors within their Healthy Dancer Programme. Two Dance UK staff members have already been trained to deliver the Empowering Dance™ workshop.

To provide a platform and infrastructure for continued development and exploitation of the Empowering Coaching™ programmes, a social enterprise is being developed with the input of Alta Innovations Ltd, the University's organisation for research/innovation [8].

**5. Sources to corroborate the impact**

- [1] Report on the PAPA project to the European Commission and end of project 'fact sheet' for stakeholders. [available on request]
- [2] Documented project (funded by the FA) entailing delivery of Empowering Coaching™ to members of their tutor workforce. [available on request]
- [3] Memorandum of agreement with the University of Valencia regarding their future exploitation of the Empowering Coaching™ training programmes
- [4] Memorandum of agreement with SportsCoach UK. [available on request]
- [5] Documented planned dissemination in countries beyond the PAPA Consortium: factual statement provided by Universidad de Nuevo Leon, Mexico.
- [6] Documented contractual relationship with Sport Wales to customize the Empowering Coaching/Teaching™ for PE teachers in Wales and establish a long-term collaboration [available on request]
- [7] Documented planned implementation of Empowering Dance™ in dance professionals' training; factual statement provided by Manager, National Institute of Dance Medicine and Science.
- [8] Signed agreement between Empowering Coaching™ and Alta Innovations [available on request] to establish the former as an operating division.