

<b>Institution:</b> University of Stirling
<b>Unit of Assessment:</b> C26: Sport and Exercise Sciences, Leisure and Tourism
<p><b>a. Context</b></p> <p>Research within the School of Sport aims to demonstrate how sport, exercise and health can be excellent by focusing on athletes, coaches, organisations and society. As a consequence, the School of Sport has had a longstanding commitment to research that makes an impact and contributes to the knowledge of international and national policymakers, practitioners and service users.</p> <p><b>Practitioners:</b> Our research has changed the behaviours of those who work in sport organisations and with sport teams and athletes. As set out in one of our impact case studies, Lavalley's research into supporting the career transitions of athletes led to the development of a programme in the Republic of Ireland, which seeks to provide proactive support to athletes in making choices about education, employment and eventually, retirement from their athletic careers. At this point, 219 athletes across 24 sports have been supported by the programme. Galloway's work in sports nutrition has contributed to medal winning success for German and Austrian cross-country and alpine skiers. On the basis of his research investigating carnitine supplementation and carbohydrate feeding Galloway worked with team nutritionists to develop individualised nutrition programmes that allowed athletes to optimise their fuelling during competition and recovery during training while maintaining their body mass goals, factors known to contribute to elite sport success.</p> <p><b>Policy-makers:</b> Members of the School make an impact on sport policy and practice through the provision of expert evidence in reports, acting as expert advisors and working directly with local, national and international agencies. Our work with policy-makers has three strands: we provide evidence to inform practice; we develop techniques that improve practice and we evaluate policy and programmes. Robinson, Morrow and Taylor's work for the Scottish Football Association is being used to inform national debate surrounding a change of season for non-professional football in Scotland. Robinson and Minikin's work in capacity building has led Olympic Solidarity to adopt their research framework as a mechanism for informing the development of National federations in all 204 Olympic Countries and to fund the development of a similar framework which is being made available for use in all National Olympic Committees.</p> <p><b>The wider community:</b> Members of the School also engage directly with the wider community where research may have direct implications or be of interest for them. Moran is part of a team funded by the Scottish Government's Knowing Sport scheme responsible for a series of public engagement workshops in science events aimed at audiences of adults and children. In association with Glasgow City Council, he and colleagues delivered 9 'Knowing Sport' sessions in areas of deprivation in Glasgow. This provided him with the opportunity to disseminate his work on the genetics of sporting performance to an audience not traditionally engaged with sport research. In recognition of his research expertise in football finance, Morrow has provided expert opinion on the financial problems at Rangers FC and Hibernian FC through regular contributions on Newsnight Scotland, numerous interview appearances on national and Scottish television and radio, including Sky News and Radio 5 Live.</p> <p>Thus, the impact of our research has been local, national and international and has engaged managers, coaches, sport science technicians, policy makers and athletes and is shaping the way sport is delivered.</p>
<p><b>b. Approach to impact</b></p> <p>At Stirling we are committed to using our research to drive up the quality of sport locally, nationally and internationally. Carrying out high quality, applied research is the cornerstone to our approach to impact and in support of this, staff seek and receive funding for research from non-academic funding sources such as Olympic Solidarity, Diabetes Research &amp; Wellness Foundation, the</p>

Scottish Football Association and the Malaysian Government. The research commissioned by these organisations is intended to inform and change the practices of their sport managers and organisations. Research planning, led by the School's Personal Research Planning process, requires a clear statement from each member of staff of how their research will create impact and the University's appraisal process incorporates the need for taking part in Knowledge Transfer and impact activities which are reviewed annually. Our researchers are supported in knowledge exchange by the School's designated Research Development Manager from the University Research and Enterprise Office and by School administrators. We provide capacity building in the form of media training, social media skills and all staff, including early career researchers are supported in their engagement with research users.

Our approach to impact is proactive and focuses on *developing and sustaining relationships with professional and policy making communities*. We undertake research that both informs and drives practice and we continuously explore how best to position the School to influence the policy and political agendas of sport while, at the same time, leveraging the support of key bodies for our research. As a consequence, we regularly meet/consult with users of our research such as the World Anti-Doping Agency, Olympic Solidarity, the UK Institutes of Sport and national and international governing bodies of sport. The intention of these interactions is to promote research expertise and its relation to informing practice; and to identify the research requirements of research users. This approach has successfully led to a number of on-going collaborations, such as Taylor's work with The Robertson Trust where his evaluation of the 'Girls on the Move' and the 'Active East' projects have clarified the Trust's work in the Community Sport Area. The Trust is now clear how sport can be used as a tool to achieve other personal development and social outcomes for young people. Dimeo's work with the World Anti-Doping Agency has led to WADA funded projects that have provided evidence to support a revision of the WADA code, informed discussion about the impact of team mates on doping behaviour, investigated the anti-doping practices of developing nations and identified the impact of coaching behaviours on doping education.

Researchers in the School collaborate closely with Sporting Chance, a unique Scottish innovation programme headquartered on campus that supports Scottish small and medium-sized enterprises that wish to develop new products for sports markets or to explore how their existing products or technologies may be developed for sport. Our researchers work in partnership with these organisations to test, refine and provide expert advice on product design. For example, working in partnership with Glasgow Health solutions, Tipton investigated the response of fatty acid uptake in muscle to fish oil supplements so that Glasgow Health Solutions could provide guidance on the length of time to take Omega 3 supplements. As a consequence, the School's research focusing on fish oil and Omega 3 has expanded significantly and has not only been supported by the Sporting Chance initiative but also by collaborations with Ideal Omega, Diabetes Research and Wellness Foundation, and SmartFish Norway. Our programme of research in this area is informing understanding of how to retain muscle mass in older adults or gain muscle mass in athletes, as well as guiding nutritional strategies for maintaining metabolic health or for treatment of patients with pre-diabetes or Type 2 diabetes.

A key feature of our approach to impact has been to include research users in all aspects of relevant research projects. Research teams engage with practitioners and policy-makers in identifying central questions, developing research design and discussing findings and their impact. Central to this is an understanding, from the start of the project, of the appropriate mechanisms of dissemination.

We contribute to the Continuing Professional Development of sport professionals. Lavalley's research into athlete transition provided the syllabus for training psychologists and practitioners, in Scotland and Republic of Ireland, who are providing proactive and reactive support programmes to athletes to help them prepare for their career transition out of sport and adjust to post-sport lives. Robinson's research in capacity building and governance has been disseminated as case studies of best practice for the Olympic Solidarity Advanced Sport Management Courses which is delivered in 96 countries around the world.

Other opportunities to develop and sustain relationships with sport practitioners and policy-makers

**Impact template (REF3a)**

and to make an impact with our research come as a result of the work that staff in the School carry out by serving on the boards of various sport organisations. Robinson is the Director of Governance and Compliance on the board of Commonwealth Scotland where she has used her research expertise to develop strategies for risk, ethics and planning to guide the practices of the organisation. Morrow and Taylor are both members of the boards of Triathlon Scotland – Morrow is Director of Finance and has made changes to the accounting and finance procedures of the organisation, while Taylor has been responsible for the finalisation of the organisation's strategic plan and has carried out Board review which has led to changes in the membership of the board.

Dissemination plays a large role in our approach to impact and staff are funded to attend academic and professional conferences. We use social media to disseminate the results of our research (@stirproftip; @HESRGUnStirling) and the School hosts research seminars aimed at academics, policy-makers, practitioners and users. The '*Big sporting question*' lecture series brings researchers, practitioners and policy makers together to debate issues that are fundamental to sport that have emerged from the School's research. Recent topics have focused on the employment of football managers (Morrow's research) and the impact of team members on doping behaviour (Dimeo, Taylor and Robinson).

**c. Strategy and plans**

Our strategy for impact has one main objective: impact will be derived from high quality research that meets the needs of, and makes a difference to, research users. We have implemented a number of plans that allow us to achieve this currently and to continue so in future. First, we are improving and consolidating our understanding of what impact is through reviewing the impact policies of the RCUKs and discussions with research users. Second, we have created a research environment that promotes research impact. As mentioned above, impact is considered an integral part of the research process and is built into research planning and staff regularly give internal presentations on research that has demonstrated impact. Third, we reinforce our approach to impact by promoting relationships with practitioners and policy-makers and resource all collaborations and networking with research users. Finally, we regularly review and evaluate whether and how our research is making an impact on sport, exercise and health and revise our research activities if necessary.

**d. Relationship to case studies**

The School's approach to impact has been to develop and sustain relationships with professional and policy making communities and the selected case studies are outcomes of that engagement. The submitted case studies are examples of the success of our approach to impact and demonstrate the range and diversity of the School's research in shaping excellence in sport. Our first case study is a programme of research which is an example of our approach to creating impact with policy-makers. This research has shaped work internationally in the field of the monitoring and evaluation of sport for development, which integrates a number of programmes and impacts. Our second case study is an example of our focus on applied research and shows how our work can impact on sport practitioners. It also provides an example of the international reach of the School's research. The final case study, on the transition of athletes into retirement focuses on elite sport, demonstrates how our dissemination strategies allow findings of an academic study can be used to guide policy, change practice and impact on service users.