

Dr. Howie James Carson

Current Role

2019 – present The University of Edinburgh: Lecturer in Motor Learning and Control Moray

House School of Education and Sport

- ✓ Course Organiser Applying Sport Science (Year 3) and Motor Control (Year 4)
- ✓ Programme Director MSc Strength and Conditioning, Course Organiser for Dissertation
- ✓ Lead for the Human Performance Science Research Group
- ✓ Depute Head of the Sport-Related Research Hub
- ✓ Ethics reviewer

Other Relevant Experience

Academic Experience

2022 “G. d’Annunzio” University of Chieti-Pescara (Italy): Visiting Professor

Department of Medicine and Aging Sciences, Behavioural Imaging and Neural Dynamics (BIND) Centre

2014 – 2019 University of Central Lancashire (UK), Institute for Coaching and Performance:

Research Fellow in Coaching and Skill Development

- ✓ Research and publish in motor control, skill development, coaching and talent development
- ✓ Supervise and examine postgraduate students (Doctoral, Masters and Erasmus)
- ✓ Administrative duties including online repository archiving and REF case study compilation using Impact Tracker (Vertigo Ventures)
- ✓ Funded knowledge transfer support for sporting organisations (e.g., Mountain Training UK, UK Coaching)
- ✓ Presentations at academic (e.g., ESAN, BASES), applied (e.g., CONI, PGA) and public (The Royal Society) events
- ✓ International collaborations (Italy, Scotland, Ireland, USA, Cyprus)
- ✓ Utilise various motion analysis programmes (e.g., Visual 3D, Xsens MVN Studio), MS Office and SPSS for research purposes

2015 Leeds Beckett University: part-time lecturer in sports coaching

School of Sport

- ✓ Teach undergraduate sports coaching practical classes
- ✓ Supervise undergraduate dissertations in physical activity and education, sport and exercise
- ✓ Supervise Masters dissertation in sports coaching
- ✓ Practical assessment in sports coaching

2013 – present Academic Citizenship

- ✓ External Examiner MSc Applied Sport & Exercise Science, Sheffield Hallam University (2022/23 – 2025/26)
- ✓ External Examiner DipHE Professional Golf (PGA), University of Highlands and Islands (2023/24 – 2026/27; confirmed)
- ✓ Co-Editor of “Research Topic in Golf” for *Frontiers in Sports and Active Living*
- ✓ Reviewer for several international journals and research councils. See my public review history here <https://publons.com/author/1516147/howie-carson#profile>
- ✓ Review committee member at the 7th World Scientific Congress of Golf

Industry Experience

2008 – present Coach

- ✓ Marker in Golf Coaching and Sport Science on The Professional Golfers' Association of Great Britain and Ireland's Professional Golf Studies FdSc
- ✓ Coaching consultant at Lancaster Golf Club and Accrington Archery Academy
- ✓ Coached across various skill levels in England, Scotland and Lithuania
- ✓ Presented workshops at golf clubs on practice design and mental skills
- ✓ Founded and acted as lead coach (of 16 coaches) for a primary and secondary schools coaching initiative that won the CCRP University Sports Club of the Year 2010

Qualifications

2007 – 2010	BA (Honours): Applied Golf Management Studies (1 st class), University of Birmingham (UK)
2010 – 2014	PhD: Motor control and coaching, University of Central Lancashire (UK)
2011	Fellow PGA Professional/Specialist Golf Coach (The Professional Golfers' Association of Great Britain and Ireland)
2014 – present	Chartered Scientist (The Science Council)
2015	Accredited Sport & Exercise Scientist (British Association of Sport and Exercise Science)
2020 (Re-Accredited)	Interdisciplinary Support & Research

POSTGRADUATE STUDENT SUPERVISION

- DOCTORAL COMPLETIONS (6) -

- Orr, S. (2022). Toward an understanding of technical training in elite level golf. DProf, University of Central Lancashire
- Collins, R. (2021). It really does depend: An exploration into the dichotomous positions held across psycho-motoric concomitants to high-level performance. PhD, The University of Edinburgh.
- Moffat, D. (2020). Golf Putting: Establishing the impact and mechanisms of a target focus with high level golfers. PhD, University of Central Lancashire.
- Taylor, R.D. (2019). Exploring the impact of siblings on talent development in sport. PhD, University of Central Lancashire.
- Mather, B-J. (2019). Changing grass roots culture in Australian rugby league. DProf, University of Central Lancashire.
- Rotheram, D. (2019). Talent identification and development in Rugby League. DProf, University of Central Lancashire.

- DOCTORAL SUPERVISION IN PROGRESS (6) -

- Jiang, Y. 'Body Rhyme' as an exemplar approach to utilising understanding as a pedagogic tool in dance practice
- Ferguson, C. Understanding and utilising errors in golf
- Li, S. Advancing coach development in China through a lens of expertise
- Nasser Alali, N. Information pick-up in physical education classes: Direct and/or indirect perception?

Peljha, Z. Establishing the relationship between selected physical fitness parameters and the efficiency in Olympic clay target shooting. PhD, University of Central Lancashire
Simon, S. Technical templates and mental models in elite para-canoe coaches. DProf, University of Central Lancashire

- EXAMINATIONS (3) -

Jakubiak, N. (2020). Haptic choice reaction time in elite judo competitors. PhD, University of Stirling
Coughlan, D. (2019). Strength and conditioning in youth golf. PhD, University of Essex.
Gallagher, L. (2019). Application of video-based technology to assess athletic development. MRes, University of Canberra

RESEARCH OUTPUTS

- PUBLISHED PEER REVIEWED JOURNAL ARTICLES (43) -

Crowther, M., Collins, D., Collins, L., Grecic, D., & **Carson, H.J.** (in press). Investigating academy coaches' epistemological beliefs in red and white ball cricket. *Sports Coaching Review*

Collins, R., Moffat, D., **Carson, H.J.**, & Collins, D. (in press). Where you look during golf putting makes no difference to skilled golfers (but what you look at might!): An examination of Occipital EEG α -power during target and ball focused aiming. *International Journal of Sport and Exercise Psychology*

Carson, H.J., Timmons, W.M., & Lanfear, M. (in press). Considering new moves in dance medicine and science: Promoting a translational agenda for improved applied impact. *Research in Dance Education*

Orr, S., **Carson, H.J.**, Cruickshank, A. (2022). How do coaches operationalise long-term technical training in elite golf? *International Sport Coaching Journal*, 9(3), 319–330.

Bobrownicki, R., **Carson, H.J.**, MacPherson, A.C., & Collins, D. (2022). Unloading the dice: Comparison-group design for improving translational impact. *International Journal of Sport and Exercise Psychology*, 20(5), 1330–1344.

Collins, L., & **Carson, H.J.** (2022). Proposing a new conceptualisation for modern sport based on environmental and regulatory constraints: Implications for research, coach education and professional practice. *Journal of Adventure Education and Outdoor Learning*, 22(3), 228–238

Bobrownicki, R., **Carson, H.J.**, & Collins, D. (2022). Conducting systematic reviews of applied interventions: A comment on Cabral et al. (2022). *Sport, Exercise and Performance Psychology*, 11(3), 264–274.

Collins, R., Collins, D., & **Carson, H.J.** (2022). Muscular collision chess: A qualitative exploration of the role and development of cognition, understanding and knowledge in elite level decision making. *International Journal of Sport and Exercise Psychology*, 20(3), 828–848.

Collins, R., Collins, D., & **Carson, H.J.** (2022). Show me, tell me: An investigation into learning processes within skateboarding as an informal coaching environment. *Frontiers in Psychology*, 13, 812068.

Orr, S., Cruickshank, A., & **Carson, H.J.** (2021). From the lesson tee to the course: A naturalistic investigation of attentional focus during technical training in elite golfers. *The Sport Psychologist*, 34(4), 305–319.

- Peljha, Z., Michaelides, M., Collins, D., & **Carson, H.J.** (2021). Assessment of physical fitness parameters in Olympic clay target shooters and their relationship with shooting performance. *Journal of Physical Education and Sport*, 21(6), 3260–3267.
- Carson, H.J.**, Davies, N.J., & Collins, L. (2021). The hills are alive with. . . Many different folk! Rationalising and operationalising a professional judgment and decision making approach within mountain leadership. *Journal of Adventure Education and Outdoor Learning*, 21(4), 311–322.
- Jordan, A.R., **Carson, H.J.**, Wilkie, B., & Harper, D. (2021). Validity of an inertial measurement unit system to assess lower-limb kinematics during a maximal linear deceleration. *Central European Journal of Sport Sciences and Medicine*, 33(1), 5–16.
- Taylor, R.D., Collins, D., & **Carson, H.J.** (2021). The role of siblings in talent development: Implications for psychologists and coaches. *Frontiers in Sports and Active Living*, 3, 626327.
- Taylor, R.D., **Carson, H.J.**, & Collins, D. (2021). Seeing double? A practice-based investigation into twins experiences of during sporting talent development. *International Sport Coaching Journal*, 8(1), 79–90.
- Carson, H.J.**, Richards, J., & Coleman, S.G.S. (2020). Could knee joint mechanics during the golf swing be contributing to chronic knee injuries in professional golfers? *Journal of Sports Sciences*, 38(13), 1575–1584.
- Toner, J., **Carson, H.J.**, Collins, D., & Nicholls, A. (2020). The prevalence and influence of psychosocial factors on technical refinement amongst highly-skilled tennis players. *International Journal of Sport and Exercise Psychology*, 18(2), 201–217.
- Collins, L., Simon, S., & **Carson, H.J.** (2019). Para-adventure: A hyper-dynamic problem for the inclusive coach. *Sport in Society*, 22(7), 1165–1182
- Carson, H.J.**, & Collins, D. (2019). Comment on: “Challenging Conventional Paradigms in Applied Sports Biomechanics Research”. *Sports Medicine*, 49(5), 827–829.
- Carson, H.J.**, Richards, J., & Mazuquin, B. (2019). Examining the influence of grip type on wrist and club head kinematics during the golf swing: Benefits of a local co-ordinate system. *European Journal of Sport Science*, 19(3), 327–335.
- Moffat, D., **Carson, H.J.**, & Collins, D. (2018). Golf putting: Equivalent performance with ball focused and target focused aiming. *Central European Journal of Sport Sciences and Medicine*, 23(3), 5–16.
- Taylor, R.D., **Carson, H.J.**, & Collins, D. (2018). The impact of siblings during talent development: A longitudinal examination in sport. *Journal of Applied Sport Psychology*, 30(3), 272–287.
- Collins, L., **Carson, H.J.**, Amos, P., & Collins, D. (2018). Examining the perceived value of professional judgment and decision making in mountain leaders in the UK: A mixed-methods investigation. *Journal of Adventure Education and Outdoor Learning*, 18(2), 132–147.
- Kearney, P.E., **Carson, H.J.**, & Collins, D. (2018). Implementing technical refinement in high-level athletics: Exploring the knowledge schemas of coaches. *Journal of Sports Sciences*, 36(10), 1118–1126.
- Moffat, D., Collins, D., & **Carson, H.J.** (2017). Target versus ball focused aiming when golf putting: What has been done and what has been missed. *International Journal of Golf Science*, 6(1), 35–55.
- Grecic, D., **Carson, H.J.**, Collins, D., & Ryan, B. (2017). The US golf academy system and the twenty first century talent tourists! Future lines of research to understand this new golfing talent pathway. *International Journal of Golf Science*, 6(1), 1–19.
- Collins, D., & **Carson, H.J.** (2017). The future for PETTLEP: A modern perspective on an effective and established tool. *Current Opinion in Psychology*, 16(1), 12–16.
- Taylor, R.D., Collins, D., & **Carson, H.J.** (2017). Sibling interaction as a facilitator for talent development in sport. *International Journal of Sport Science and Coaching*, 12(2), 219–230.

- Carson, H.J., & Collins, D.J.** (2017). Commentary: Motor imagery during action observation: A brief review of evidence, theory and future research opportunities. *Frontiers in Human Neuroscience, 11*, 25.
- Collins, L., **Carson, H.J.**, & Collins, D. (2016). Metacognition and professional judgement and decision making in coaching: Importance, application and evaluation. *International Sport Coaching Journal, 3*(3), 355–361.
- Collins, D., Collins, L., & **Carson, H.J.** (2016). “If it feels right, do it”: Intuitive decision making in a sample of high-level sport coaches. *Frontiers in Psychology, 7*, 504.
- Carson, H.J.**, & Collins, D. (2016). Implementing the Five-A Model of technical change: Key roles of the sport psychologist. *Journal of Applied Sport Psychology, 28*(4), 392–409.
- Carson, H.J.**, Collins, D., & Richards, J. (2016). Initiating technical refinements in high-level golfers: Evidence for contradictory procedures. *European Journal of Sport Science, 16*(4), 473–482.
- Collins, D., **Carson, H.J.**, & Toner, J. (2016). Letter to the editor concerning the article “Performance of gymnastics skill benefits from an external focus of attention” by Abdollahipour, Wulf, Psotta, & Nieto (2015). *Journal of Sports Sciences, 34*(13), 1288–1292.
- Carson, H.J.**, & Collins, D. (2016). The fourth dimension: A motoric perspective on the anxiety–performance relationship. *International Review of Sport and Exercise Psychology, 9*(1), 1–21.
- Collins, D., **Carson, H.J.**, & Cruickshank, A. (2015). Blaming Bill Gates AGAIN! Misuse, overuse and misunderstanding of performance data in sport. *Sport, Education and Society, 20*(8), 1088–1099.
- Carson, H.J.**, & Collins, D. (2015). Tracking technical refinement in elite performers: The good, the better and the ugly. *International Journal of Golf Science, 4*(1), 67–87.
- Carson, H.J.**, Collins, D., & Richards, J. (2014). “To hit, or not to hit?” Examining the similarity between practice and real swings in golf. *International Journal of Golf Science, 3*(2), 103–118.
- Carson, H.J.**, & Collins, D. (2014). Effective skill refinement: Focusing on process to ensure outcome. *Central European Journal of Sport Sciences and Medicine, 7*(3), 5–21.
- Carson, H.J.**, Collins, D., & Richards, J. (2014). Intra-individual movement variability during skill transitions: A useful marker? *European Journal of Sport Science, 14*(4), 327–336.
- Carson, H.J.**, Collins, D., & Jones, B. (2014). A case study of technical change and rehabilitation: Intervention design and interdisciplinary team interaction. *International Journal of Sport Psychology, 45*(1), 57–78.
- Carson, H.J.**, Collins, D., & MacNamara, Á. (2013). Systems for technical refinement in experienced performers: The case from expert-level golf. *International Journal of Golf Science, 2*(1), 65–85.
- Carson, H.J.**, & Collins, D. (2011). Refining and regaining skills in fixation/diversification stage performers: The Five-A Model. *International Review of Sport and Exercise Psychology, 4*(2), 146–167.

- BOOK CHAPTERS (5) -

- Carson, H.J.**, & Collins, D. (2022). The art and science of refinement: Modifying, polishing and tweaking learnt skills. In C. Nash (Ed.), *Practical sports coaching* (2nd edition, pp. 92–106). Routledge.
- Carson, H.J.**, & Collins, D. (2020). Training for success under stress: Appropriately embedding motor skills in sport. In M. Ruiz., & C. Robazza (Eds.), *Feelings in sport: Theory, research, and practical implications for performance and well-being* (pp. 168–177). Routledge.
- Carson, H.J.**, Robazza, C., Collins, D., Toner, J., & Bertollo, M. (2020). Optimizing performance in sport: An action-based perspective. In M. Bertollo., E. Filho., & P. Terry (Eds.), *Advancements in mental skills training* (pp. 15–27). Routledge.
- Carson, H.J.**, & Collins, D. (2017). Refining motor skills in golf: A biopsychosocial perspective. In M.R. Toms (Ed.), *Routledge international handbook of golf science* (pp. 196–206). Routledge.

Carson, H.J., Collins, D., & Kearney, P.E. (2017). Skill change in elite-level kickers: Interdisciplinary considerations of an applied framework. In H. Nunome., E. Hennig., & N. Smith (Eds.), *Football biomechanics* (pp. 173–189). Routledge.

- PUBLISHED ABSTRACTS (1) -

Carson, H.J., Collins, D., & Christina, B. (2016). Technique change in experienced golfers: Coaching considerations for maximizing long-term permanence and pressure resistance. *International Journal of Golf Science*, 5(Suppl. 1), S6.

- FUNDING (10) -

Carson, H.J. (2021). Assessing for the existence of especial skills in golf. Moray Endowment Fund Award, £1,320

Carson, H.J. (2021). University of Edinburgh Regional Skills Fund, £5,000

Carson, H.J., & Timmons, W. (2021). *Prospective* movement analysis lab. Teaching and Learning Innovation Grant (The University of Edinburgh), £1,465

Robinson, P.G., & **Carson, H.J.** (2021). Muscle activity of the extensor carpi ulnaris in the lead and trail wrist of sub-elite golfers during the swing. BASEM Research Bursary Award, £5,000

Carson, H.J. (PI), Timmons, W., Nash, C., & Collins, D. (2021). “The show must go on!” Examining the impact and recovery from COVID-19 in the performance arts. Data Driven Innovation Scottish Funding Council Beacon Open Call, £23,364.43

Carson, H.J., & Timmons, W. (2021). Understanding and developing technical skills in classical ballet: Ensuring safe and healthy practice. Scottish Enterprise Advanced Innovation Voucher Scheme, £10,000

Carson, H.J. (PI), & Timmons, W. (2020). Proof of concept using innovative motion capture and analysis tools in professional classical ballet. RKEI Innovation Funding (The University of Edinburgh), £1,059.70

Collins, L., & **Carson, H.J.** (2019). Technical rescue REF impact case study. Internal funding University of Central Lancashire, £15,000

MacNamara, Á., Collins, D., **Carson, H.J.,** Collins, L., & Kiely, J. (2017). A review of participant development in sport. A report for UK Coaching, £6,998

Collins, L., Collins, D., & **Carson, H.J.** (2016). Climbing awards review 2016. A report for Mountain Training UK, £16,780

- INDUSTRY WORKS (3) -

Collins, D., & **Carson, H.** (2020). “It depends”: The best advice for any coach anywhere! *The PGA Professional*, 16(1), 49–50.

Carson, H. (2013). Skill learning in Motor Sport. Module material provided for the MSA Level 2 coaching award.

Carson, H.J., Chohan, A., & Richards, J. (2014). An independent report on the application of pressure re-distributing support surfaces. A report for Rophi Ltd.

- Artefacts (1) -

Carson, H.J., Timmons, W., Lebrun, F., Nash, C., & Collins, D. (2021). [“The Show Must Go On!” Examining the Impact and Recovery from COVID-19 in the Performance Arts - YouTube](#)