IRISH SPORT AND EXERCISE SCIENCES ASSOCIATION

Accredited Sports Performance Analyst

Professional Standards and Scope of Practice

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Preface

The Irish Sport and Exercise Sciences Association (ISESA) Accredited Sports Performance Analyst (ASPA) Professional Standards, set the minimum standards for a professional to be Accredited as a Sports Performance Analyst.

Professional standards broadly describe the minimum practice requirements of graduates working in sports performance analysis. These standards have been developed by a Performance Analysis working group in consultation with the ISESA Accreditation Committee. Draft standards were amended based on review by over twenty external experts (academics and industry professionals from a variety of sports).

Five standard domains covering core aspects of the field of sports performance analysis are presented. The core values and expectations of an ISESA-ASPA are described in the professional attributes that apply to all aspects of sport and exercise sciences practice.

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Scope of Practice

Accredited sports performance analysts apply scientific principles to generate, curate and translate data which provide timely insights into performance, enhance feedback discussions, aid reflection and add value to decision making processes.

The following is a list of the type of activities ASPAs are able to perform to add value to the coaching process.

Note that *coaching* is beyond the scope of practice for an ASPA unless additional appropriate coaching qualifications have been attained.

1. **Design and / or manage the systems, processes and platforms** to measure, understand and communicate performance benchmarks, performance profiles and performance strategies (game-plans / set pieces etc). Support stakeholders to use these systems as appropriate.
2. **Supporting and monitoring practice** by; video recording and facilitating the review of training performance data by coaches and athletes.
3. **Pre-competition analysis** and profiling of opponents or expected benchmarks, curated and presented through a variety of formats including dashboards and video.
4. **Pre-competition briefing** through the facilitation of individual / team in person briefing meetings and / or the provision and monitoring of online briefing information directly to coaches, athletes and / or support staff.
5. **In-competition analysis and feedback** using systems designed to capture, analyse and feed live performance data to coaches and other stakeholders.
6. **Post-competition analysis and debriefing** through the analysis of competition data, preparation of feedback, and facilitation of individual / team in person debriefing meetings and / or the provision and monitoring of online debriefing information directly to coaches, athletes and / or support staff.
7. **'Point in time' review** or individual or team performance, conducted in collaboration with coaching staff at a specific juncture in season, at the end of a season or performance cycle based on all available data.

Professional Attributes

An ISESA-ASPA is expected to uphold the highest standards of professionalism, ethics, and evidence-based practice. An ISESA-ASPA member will:

- Demonstrate professional, ethical, and inclusive practice in alignment with the ISESA Code of Conduct which can be found here.
- Support inclusive practice by promoting equity, diversity, and inclusion across all areas, recognising and respecting differences in culture, gender, age, ability, identity, and background, and ensuring accessible, person-centred, and culturally responsive approaches to health and physical activity.
- Adhere to workplace policies, industry regulations, and legal requirements when working with clients.
- Operate strictly within their accredited scope of practice to ensure client safety and service quality, recognising the limits of their knowledge, skills and practice, referring clients to other professionals when necessary.
- Work, where appropriate, as part of a wider client support team in a collaborative and respectful manner.
- Utilise evidence-based practices to design and deliver safe, effective, and individualised interventions.
- Ensure that records relevant to the client are accurately and appropriately stored in compliance with the General Data Protection Regulation (GDPR) and other legislative requirements.
- Integrate and apply appropriate and applicable knowledge and skills from various disciplines of sport and exercise sciences when providing service to clients.
- Demonstrate logical, systematic, and innovative thinking in problem-solving and decision-making.
- Adopt a client-centred approach, tailoring services to individual needs and goals.

- Develop and maintain strong professional relationships with clients, colleagues, and relevant groups.
- Engage in reflective practice and continuous professional development (CPD) to enhance expertise and service quality.
- Uphold and promote the credibility of the sport and exercise sciences profession, acting as an ambassador for high standards and ethical conduct.

Standard Domain One: Performance Analysis Base Knowledge

Overarching Focus:

An ISESA-ASPA has demonstrated detailed knowledge of scientific principles that underpin the systematic collection, analysis, interpretation and translation of a range of sports performance data.

Elements of Sports Performance Analysis Base Knowledge:

The ISESA-ASPA can demonstrate foundational knowledge regarding:

System design processes:

1. The role of the coaches' performance philosophy and performance model in driving the performance questions to be addressed through performance analysis support systems.
2. The function of an appropriate environmental assessment to evaluate the performance context and inform the approach to practice. [Coaching philosophies, power dynamics and culture, PA age of coaches and athletes, performance expectations]
3. The role of a needs analysis in setting the parameters and constraints for system design. [Personnel, timeframes, budget and technology; test and pilot systems; training of operators].
4. The development and evaluation of valid, meaningful performance metrics with agreed operational definitions.
5. Iterative system design protocols to design and trial robust systems in consultation with end users to generate, curate and translate performance data.

Principles of data collection

1. The functionality and potential limitations of a range of performance analysis solutions (notation, hardware, software and AI models) for data collection.
2. Potential sources of error and margins of error in data collection and common strategies to mitigate and acknowledge these.
3. Role of inter- and intra- operator reliability tests to ensure ongoing appropriate levels of accuracy.
4. Impact of data sampling and stability in a performance sport context.
5. The need for ongoing assessment of the integrity of third-party performance data sets.
6. Impact of General Data Protection Regulations on data collection, storage and use.

Principles of data analysis for performance profiling

1. Principles of data handling (video & statistical) with appropriate operating procedures for analysis workflow.
2. Assessment of data stability in a performance profiling context.
3. Application of appropriate analysis techniques to answer performance questions [identify trends or performance patterns].
4. Awareness and application of tools for effective data analysis and mining (from excel to AI 'black box') with appropriate security and access constraints
5. Fundamentals of performance profiling at particular points in time, in consultation with key stakeholders and in the context of the performance model.

Principles of feedback

1. Models of the coaching process and the role of sports performance analysis in supporting reflection and decision making for coaches and athletes.
2. Principles of skill acquisition, coaching pedagogy, and the use of scaffolding (e.g. meetings, tasks, questions, telestration) to support the design and evaluation of effective feedback interventions.
3. Role of environmental assessment and needs analysis in guiding feedback design and preparation for all stakeholders based on the technology availability, the performance context and organisational norms.
4. Alignment of feedback design to the performance model and coaching philosophy.

5. Management of the dynamics and boundaries of communicating information within the coach-analyst relationship.

Standard Domain Two: Technical Knowledge and Skills for Sports Performance Analysis

Overarching Focus:

The ISESA-ASPA will be expected to have the technical skills and ability to practice within applied performance analysis settings to support the provision of timely insights which aid reflection and decision making.

Elements of Sports Performance Analysis Technical Knowledge:

The ISESA-ASPA can demonstrate and apply technical knowledge regarding:

Generate (Data Collection)

1. Ability to film and capture footage using generic video cameras and storage media
2. Awareness of camera set-up considerations including the position of filming and camera settings
3. Develop and use consistent operating procedures for data handling and archiving (file naming protocol etc)
4. Design of computer-based analysis systems using generic software to systematically code and collect reliable performance data over multiple performances.
5. Development and use of real-time data capture and analysis systems.
6. Data handling protocols in place governing data export and management in a local repository appropriate to the size of the data set, considering data security.
7. Management of a hardware and software inventory, equipment and software maintenance, and ongoing readiness for use.

Curate (Data Management & Analysis)

1. Devise protocols to verify data (AI), clean data and integrate data sets from various sources where appropriate.
2. Select statistical techniques and applications to manipulate and interrogate data at a level appropriate to analyst expertise and the performance environment.
3. Filter findings in the context of performance questions and operational priorities.

4. Use data visualisation applications to create performance profiles which can facilitate further interpretation and co-creation of knowledge by key stakeholders, including an assessment of the context and stability of data.
5. Manage access to and sharing of data with stakeholders; upskilling stakeholders on software applications where necessary

Translate

1. Use software platforms to facilitate the delivery of live data and insight to stakeholders where appropriate.
2. Use applications to create animations which can facilitate translation, storytelling and delivery of coaching messages to specific audiences.
3. Use applications to edit, annotate and telestrate video presentations which can facilitate translation, storytelling and delivery of coaching messages to specific audiences.
4. Use digital tools and platforms to design and scaffold engaging learning opportunities for specific audiences.
5. Manage the technology required to deliver or facilitate the delivery of performance feedback online, or in individual or group scenarios.

Standard Domain Three: Research and Innovation in Sports Performance Analysis

Overarching Focus:

The ISESA-ASPA will be expected to have knowledge related to research, data analysis and technology in Performance Analysis. The ASPA will understand how to effectively apply research and critical analysis; use, interpret and appraise various technologies in Performance Analysis settings.

Elements of Research and Innovation in Sports Performance Analysis:

The ISESA-ASPA will:

Elements of Research and Innovation in Performance Analysis:

The ISESA-ASPA will:

1. Use research skills to critically examine relevant performance analysis research and the application of this research to the applied setting.
2. Use research skills to undertake research and/ or reflect on existing literature to inform design-making within the performance analysis setting.
3. Use research and data analysis to guide meaningful engagement and feedback to clients, service users and stakeholders.
4. Be open to innovation and have competence in appraising existing and emerging technology in performance analysis
5. Critically examine the potential application, validity, reliability, appropriateness, usefulness and limitations of performance analysis technologies and use this to inform decision-making regarding the utilisation of such technology.
6. Build a significant depth of sport specific knowledge through awareness and understanding of; academic research outputs, coaching courses, material from national and international governing bodies of sport, media content and personal observations and conversions in the coaching environment and learnings from other sports.

Standard Domain Four: Practice Management Skills for Sports Performance Analysis

Overarching Focus:

The ISESA-ASPA will be expected to have the knowledge and interpersonal skills to build the contextual intelligence which allows them to effectively manage professional practice while embedded within applied performance analysis settings.

The ISESA-ASPA will have the knowledge and skills to:

1. Conduct an environmental assessment and needs analysis within a sports performance ecosystem.
2. Develop and negotiate an appropriate service level agreement with line management (manager / head coach / performance director).
3. Develop tools to evaluate service delivery in an appropriate manner.
4. Agree and manage role descriptions and appropriate service plans with line managers (head of PA / manager / head coach / performance director) in terms of the levels and types of data collection, analysis and feedback to be delivered in specific time frames.
5. Demonstrate competent self-management within the demands and expectations of the organisation.
6. Demonstrate a client focused approach which is athlete-centred, and coach led, based on an environmental assessment and appropriate needs analysis.

Standard Domain Five: Professional Skills for Sports Performance Analysis

Overarching Focus:

The ISESA-ASPA will be expected to have the knowledge, skills and ability to practice within sport and exercise science settings in a professional, inclusive, equitable, ethical, cooperative and collaborative manner.

Elements of Professional Skills for Sports Performance Analysis:

The ISESA-ASPA will:

1. Have an understanding and appreciation of the importance of engaging with clients, service users and stakeholders in a safe, ethical, inclusive, sensitive, equitable and non-discriminatory manner, consistent with the ISESA Code of Conduct.
2. Apply communication skills to effectively and collaboratively work as part of a multi-disciplinary group or team.
3. Apply verbal and non-verbal communication skills to effectively, professionally and respectively work with all stakeholders demonstrating emotional intelligence and awareness of the power dynamics and politics within a performance ecosystem.
4. Demonstrate competence to use innovative strategies to communicate relevant and meaningful information to sport and exercise science audiences and stakeholders.
5. Have an understanding and appreciation for the value of reflective practices and to engage in such reflection to support on-going professional development.
6. Engage in problem-solving activities related to sports science support both individually and as part of a collaborative team to develop solutions and inform decision-making and practice.
7. Demonstrate a commitment to ongoing professional development and develop an appreciation for the importance and relevance of life-long learning.