Foundations of sport and exercise psychology

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profile | research | software | learning resources | book meeting

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Agenda

- Information about your lecturers and this module
- Be able to describe what sport and exercise psychology is and what sport and exercise psychologists do
- Understand major historical developments in this discipline
- Get an overview of career opportunities and future directions in sport and exercise psychology

Suggestions for optimal learning

- Attend lectures, seminars, etc.
- Ask for breaks when you need one
- Ask for clarification as soon as possible
- Take notes
- Do not copy the slides
- Review your notes regularly
- Study from books and articles. The slides are not the only study resource.
- Do the optional ungraded homework
- Be proactive

Resources

- Activities
  - lectures
  - seminars
- Blackboard website
  - Recordings (Panopto)
  - Reading list (Talis)
  - Presentation slides
- People
  - Lecturers
  - Personal Tutor
  - Peer guides
  - Fellow students

I'll now demonstrate the Blackboard website, the Module Handbook, the Talis Reading List, etc.

Attendance pin

To log in your attendance enter the unique pin in your checkin app.

https://checkin.bangor.ac.uk/

The pin is unique to each session and is generated by the lecturer.

The lecturer can also add you manually when you ask them in person.

Definitions

Sport and Exercise Psychology is the:

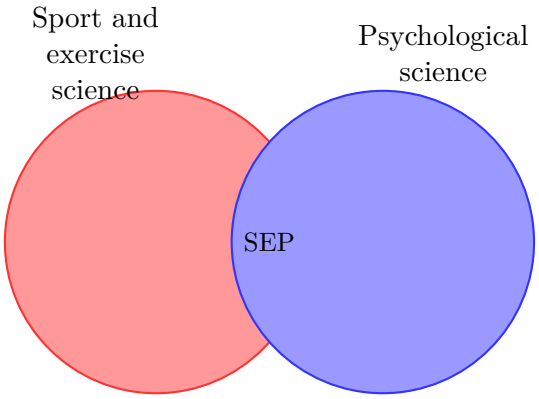
- **study** of people's behavior, thoughts, and feelings in sport and exercise contexts
- **applications** of that knowledge

The ABC of Psychology

- **Affect (Feelings)**: Emotions, moods; Stress, anxiety; Motivation
- **Behavior (Actions)**: Performance, habits; Communication; Leadership
- **Cognition (Thoughts)**: Beliefs, attitudes; Decision-making; Problem-solving

Discipline location in relation with Sport Science and Psychology

Sport and exercise psychology lives in the *intersection* of sport and exercise science and psychological science



Two objectives

We will review in turn each of the two objectives: sport and exercise.

Sport and exercise psychology objectives:

- Sport Exercise (bidirectional relationship)

Objective: Sport psychology

Understand the effects of psychological factors on physical or motor performance.

Examples:

- What are the effects of anxiety on basketball free-throwing accuracy?
- Does greater self-confidence improve a child's ability to learn to swim?
- Do psychological skills (e.g., imagery) facilitate injury recovery

Objective: Exercise Psychology

Understand the effects of physical activity on psychological development, health, and well-being.

Examples:

- Does running reduce anxiety and depression?
- Does taking physical education classes improve a child's self-esteem?
- Do children become more aggressive by participating in youth sports?

Target populations

Children

People with disabilities

Elderly

Recreational athletes

Elite athletes

Role of sport and exercise psychologists

Main roles:

- Research
- Teaching
- Consulting

Research

Goal: Advance knowledge in the field

Where: University or Research Institute

Teaching

Goal: Educate future sport and exercise psychologists

Where: usually in a University

Consulting

Goal: depending on the client (e.g., well-being, performance)

Where: Athletic teams, military, fitness industry

Two specialties

Main specialties:

- Clinical
- Educational

Clinical sport and exercise psychologists

- Identify and treat individuals with emotional disorders (e.g., anxiety, depression, eating disorders)
- Require clinical license on top of sport and exercise psychology training

Educational sport and exercise specialists

- Not licensed for clinical psychologists
- Extensive training in kinesiology
- Provide "mental coaching" through psychological skills

Three orientations

Main orientations:

- Social-psychological
- Psychophysiological
- Cognitive-behavioral

Social-Psychological

Study of how individuals are influenced by the social environment and vice versa

Psychophysiological

Physiological activity (e.g., brain waves, heart rate) as markers of psychological states (e.g., concentration, attention)

Cognitive-behavioural

Mental processes (e.g., memory, attention, language, perception) driving observable behaviour (e.g., performance, decisions)

Attention

To watch in your own time.

Video 1 is on an elite sport application. Videos 2 and 3 are about selective attention (which will a later topic this semester).

Brief historocal overview of sport and exercise psychology

Historical timeline:

- 1890-1920s: Early years
- 1920-40s: First laboratory testing
- 1940-60s: Preparation for the future
- 1960-80s: Academic discipline
- 1980-90s: Multidisciplinary science and practice
- 2000-present: Contemporary sport and exercise

- 1890-1920s : Early years
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Development of sport and exercise psychology (scrollable slide)

Early years

- 1890-1920s
- Philosophical perspective
- Experimental perspective
- E.g., Why do cyclists ride faster when racing in groups than individually?

First laboratory testing

- 1920-40s
- Development of laboratories in
- various western countries
- Testing athletes on reaction times, concentration, aggression, etc

Preparation for the future

- 1940-60s
- University professors teaching sport and exercise psychology -First consultants hired by professional athletic teams

Academic discipline

- 1960-80s
- Kinesiology (sport and exercise science) becomes a discipline
- Sport and exercise psychology as part of kinesiology

Multidisciplinary science and practice

- 1980-90s
- Sport and exercise psychology becomes a separate discipline
- Specialty scientific societies and journals

Contemporary sport and exercise psychology

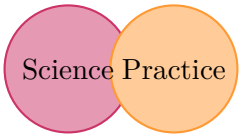
- 2000-present
- Exponential growth
- Esteemed academic discipline
- Recognised practical importance
- Driving knowledge in other fields

Review questions

Discuss in small groups

1. Think of **examples** of sport and exercise psychology science or practice that you have come across.
2. What is sport and exercise psychology? What are its two **objectives**?
3. Describe the three main **roles** of sport and exercise psychology specialists

Science vs practice | Sport and exercise psychology as science



Tenets of the scientific method:

- Systematic approach to studying a question
- Control/manipulation of conditions
- Empirical (based on observations)
- Objective evidence and not opinions
- Critical analysis of measurements and ideas

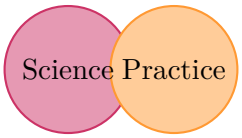
A major objective of the application of the scientific method is the development of a **theory**

What is a **theory**?

- Not a speculative guess…
- …but a set of interrelated facts on a certain phenomenon

- Describes the **what** of a certain phenomenon
- Explains the **how** and **why** of its mechanisms
- Supported by **empirical evidence**
- Makes **testable predictions**

Science vs practice | Sport and exercise psychology as practice



- Guided by trial-and-error learning
- Based on systematic observation, personal experience, introspection, intuition, …and scientific method

Compared to scientific knowledge:

- More holistic (global)
- Quicker to implement novel ideas
- Produces fewer or no explanations
- Affected by bias and less reliable

Critical reflections | small-group activity

You are interested in studying the effects of two strategies of penalty taking in football/soccer.

Strategy A. Pick a target and ignore any goal-keeper's movements

Strategy B. Observe the goal-keeper movements during the run-up and then decide where to place the ball

How would you design an experimental study to test which strategy leads to better performance outcome?

Think about participants, Instructions, Measurements, Groups/Conditions, Analysis

Institute for the Psychology of Elite Performance

IPEP
INSTITUTE FOR PSYCHOLOGY OF ELITE PERFORMANCE

https://ipep.bangor.ac.uk/

Further Reading

- Why elite athletes are harnessing their own brain waves for sporting success
- Golf: The neuroscience of the perfect putt
- Unlocking the secrets of flawless putts: Understanding human performance in high-pressure situations

Review (MCQs 1)

1) Which best describes Sport and Exercise Psychology?

A) The study of physical training methods

B) The study and application of behaviour, thoughts, and feelings in sport/exercise contexts

C) The study of nutrition in sport

D) The application of biomechanics to performance

correct answer: B

Review (MCQs 2)

2) Which is NOT one of the two main objectives?

A) Understanding effects of psychological factors on performance (Sport)

B) Understanding effects of physical activity on health and well-being (Exercise)

C) Developing strength and conditioning programmes

D) Understanding psychological development related to activity (Exercise)

correct answer: C

Review (MCQs 3)

3) Which population is explicitly within SEP's remit?

A) Only elite athletes

B) Only children and adolescents

C) Children, people with disabilities, elderly, recreational, and elite athletes

D) Only adults in clinical care

correct answer: C

Review (MCQs 4)

4) Which role focuses on advancing knowledge?

A) Teaching

B) Consulting

C) Research

D) Personal tutoring

correct answer: C

Review (MCQs 5)

5) Which statement about specialties is true?

A) Educational specialists diagnose and treat emotional disorders

B) Clinical SEP require an additional clinical licence

C) Clinical SEP do not work with mental health issues

D) Educational SEP cannot work in universities

correct answer: B

Review (MCQs 6)

6) Which best matches the psychophysiological orientation?

A) Studying social context effects on individuals

B) Using brain waves/heart rate as markers of psychological states

C) Emphasising thoughts driving behaviour

D) Analysing technique via biomechanics

correct answer: B

Review (MCQs 7)

7) A core tenet of the scientific method is:

A) Relying on expert opinion over data

B) Systematic approach and control of conditions

C) Avoiding replication

D) Prioritising intuition

correct answer: B

Review (MCQs 8)

8) A scientific theory is best described as:

A) A speculative guess

B) A set of interrelated facts describing, explaining, and predicting a phenomenon

C) A personal belief supported by anecdote

D) A single confirmed hypothesis

correct answer: B

Review (open questions)

Discuss briefly in pairs/small groups:

1) Give two real-world examples of SEP science or practice you've encountered.

2) Contrast "science" vs "practice" in SEP: what are the strengths and limitations of each?