

## **Foundations of sport and exercise psychology**

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On a computer press F11 to de/activate full-screen view.

For smartphone and review: Bottom left menu → Tools → PDF Export Mode.

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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:

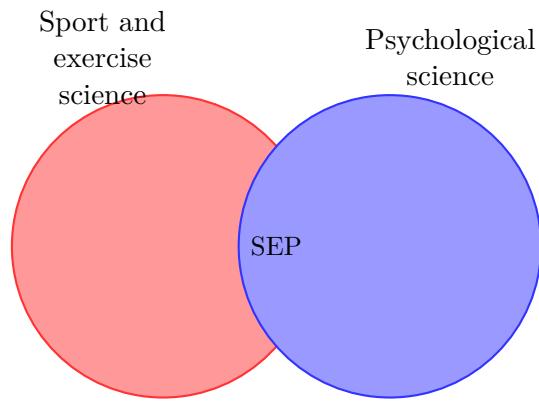
- **study** of people's behavior, thoughts, and feelings in sport and exercise contexts
- **applications** of that knowledge

## The ABC of Psychology

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

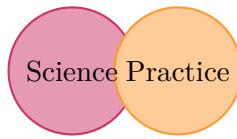
- 2000-present
- Exponential growth
- Esteemed academic discipline
- Recognised practical importance
- Driving knowledge in other fields

## **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:

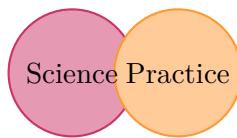
- Systematic approach to studying a question
- Control/manipulation of conditions
- Empirical (based on observations)
- Objective evidence and not opinions
- Critical analysis of measurements and ideas

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**

<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?