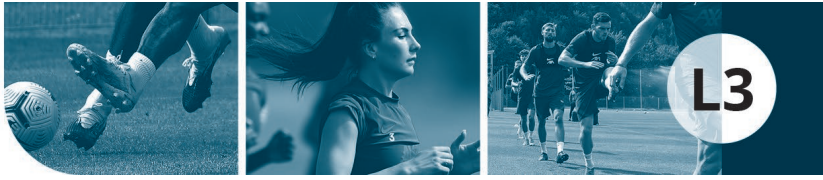


Unit 3: Research Project in Sport

Delivery guidance

Approaching the unit

This unit aims to develop broad research skills, including the knowledge, understanding and professional behaviour required for independent investigations in sport. The varied activities within the unit should enable learners to develop their i problem-solving, critical thinking and analytical skills.

The overall aim of the unit is to provide learners with knowledge and experience of the complete research process within the context of sports research by initially providing the underpinning knowledge related to the research process, enabling learners to develop their own research proposal. The delivery of the unit should reflect this aim by providing learners with opportunities to review and take part in a range of qualitative and quantitative research activities, supported by insight from researchers active in the sports research field.

Delivering the learning aims

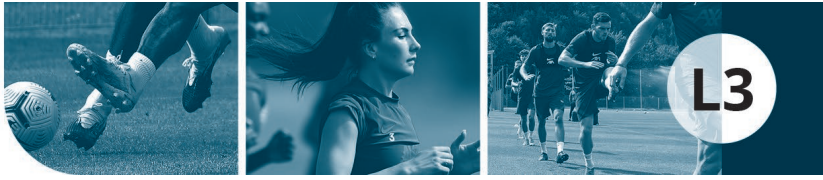
Learning aim A outlines some of the core concepts and approaches that underpin research activity. It looks at defining the purpose of research and what it can bring to advancements in a sporting context, along with the different methodologies and approaches that can be implemented to achieve these developments.

Building on the awareness of different types of research, learners should be introduced to the breadth of existing research from as many sources as possible. Learners need to be able to access different research sources, so it is important that delivery of this learning aim includes learners having access to search opportunities within libraries or online, along with the skills on how to search for sources and how to determine their relevance.

Delivery of the learning aim may benefit from having researchers who have current experience of planning and conducting research within the sports industry sharing their insight with learners, to provide a "real life" context to the theoretical approach.

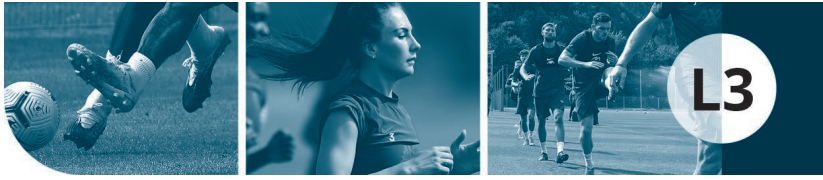
Learning aim B focuses on turning the underpinning theory into a proposal for a learner driven research activity by looking at the different research design possibilities, sampling strategies, ethical considerations and data collection techniques. Learners need to be able to challenge the rationale and benefits of existing research to make sure they are able to justify their own proposals, so they need to interrogate numerous research study designs to develop this skill. Providing a framework for how to analyse a research paper would really help learners to challenge research rationales and develop a curious mindset, rather than accepting the findings of every piece of published research.

The other significant area of this learning aim is learners developing an understanding of reliability and validity and how it pertains to research in sport, as knowledge and understanding of this area should enable learners to produce proposals for research that could add value to the scientific knowledgebase. Delivery of this learning aim should be a balance of tutor-led activity and group activities with learners having access to sources of research as well as conducting their own small-scale data collection activities to reinforce the learning. As with learning aim A, having a researcher providing insight into how they approach the research planning process could add value for learners.



Learning aim C looks at the management and delivery of the research process, guiding learners to the behaviours required for effective research activity. Conducting a small-scale research activity within the groups can be a useful vehicle to deliver some of this content, highlighting areas such as risk assessment, accuracy of data collection, managing participants, communication etc, using the learner experiences to reinforce the learning.

Learning aim D looks at the methods that can be used to analyse different types of data to draw valid conclusions. This could be delivered by using the data generated in learning aim C to put into practice the theoretical concepts delivered in the tutor-led activity. Learners should be exposed to some of the statistical analysis techniques used to analyse quantitative data along with the coding approach used with qualitative data.



Assessment model

Learning aim	Key content areas	Recommended assessment approach
A Investigate different types of research methods and current trends in sports and exercise	**A1** Research purpose and methods **A2** Literature search **A3** Review of the literature	This unit is assessed through a Pearson Set Assignment.
B Propose a research project in sport	**B1** Creating a proposal and forming research question, aims or hypothesis **B2** Data collection for research **B3** Validity and reliability	
C Apply investigation skills for a research project in sport	**C1** Applying research practice principles to an investigation	
D Draw conclusions from a research project in sport	**D1** Interpreting data and information **D2** Drawing conclusions **D3** Presenting information	

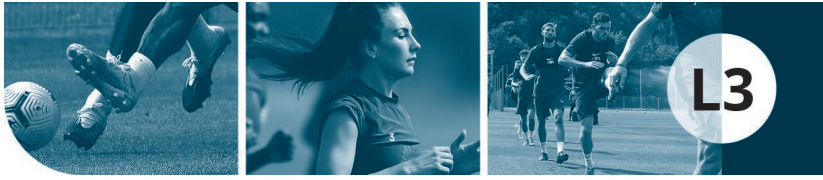
Assessment guidance

The unit is assessed by a Pearson Set Assignment (PSA). The assessment is set by Pearson and must be taken under controlled conditions before it is marked by tutors.

There are 120 guided learning hours assigned to the unit, of which 20 hours will be required for assessment.

Set assignments are available from September each year and are valid for one year only.

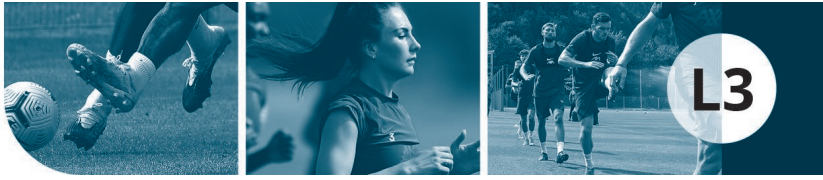
Delivery must cover all the unit content and prepare learners to produce evidence to meet the assessment criteria and assessment guidance in preparation for taking the PSA. Sample Assessment Materials are available on the Pearson website. These can be used or adapted to help learners prepare for assessment.



Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Introduction
Introduce this unit by outlining the scope of the unit and the fact that learners will be required to plan, manage and carry out a research project safely and ethically, following appropriate ethical guidelines.
Learning aim A: Investigate different types of research methods and current trends in sports and exercise
• Learning aim A outlines some of the core concepts and approaches that underpin research activity. It looks at defining the purpose of research and what it can bring to advancements in a sporting context, along with the different methodologies and approaches that can be implemented to achieve these developments. • For A1, a mixture of tutor presentations, guest speakers and group activities can be used to define the different types of research and research approaches. Examples of research paper should be used to demonstrate the different variations of research approach, to enable learners to identify and discuss the pros and cons of each. • For A2, learners need to be able to search for key research sources, so access to a library and/or online reference sources is critical. Having library staff deliver guidance on how to search the various systems would be useful here. How to use reference sources in your own work is another important area of this learning aim, so a clear approach to this should be delivered by the tutor, with learners having the opportunity to practise accepted referencing practice. • For A3, there would be tutor-led activity in looking at how to review literature, providing a framework for learners to apply when reviewing the reference source. The more opportunities learners have to apply this to different pieces of research, the more this process will become embedded in their research practice.
Learning aim B: Propose a research project in sport
• Learning aim B focuses on turning the underpinning theory into a proposal for a learner driven research activity by looking at key features that might make the research a success. This would include how to obtain reliable and valid data, mitigate against errors and the application of ethical principles. • For B1, the initial focus is on clearly defining the rationale and purpose of research activity, so access to a range of sources so that learners can analyse a range of approaches, topics and types of research would be useful. Learners would then look at different research designs, how participants are chosen for these studies and the implications this has on the data produced. The final area to consider is the ethical principles required for safe research, looking at the concept of informed consent, confidentiality and bias. A blend of tutor-led presentations and group activities, reviewing and analysing examples of existing research would be used to highlight the key features in these topics that can be applied in the production of a research proposal.



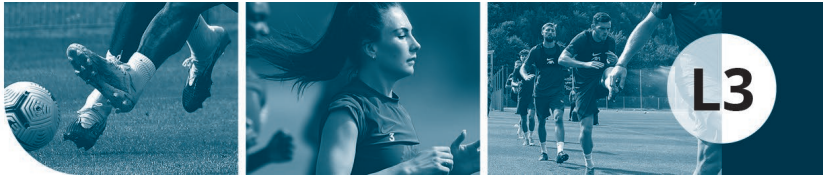
- For B2, practical data collection activities could be used to review the different ways data can be collected. This could be lab and/or field-based fitness testing to cover quantitative research and potentially a questionnaire for qualitative approach. Having learner driven activity reinforced by tutor-led discussion and guest speakers from the sector would be a successful method of delivery.
- For B3, the concepts of reliability and validity could be highlighted by completing a group activity that deliberately manipulates the conditions to create reliability and validity errors. This could be then reinforced by tutor-led presentations to highlight the key points and define the features that need to be considered and controlled to produce effective research activity.

Learning aim C: Apply investigation skills for a research project in sport

- Learning aim C looks at the behaviours involved in the management and delivery of the research process.
- For C1, a group lab/field-based data collection activity could be used to highlight the key behaviours and activities required to manage a research process. The tutor would then lead a discussion around their experiences and identify the key features and behaviours, such as managing risk, applying ethical principles, communication, managing equipment and participants etc This could also be reinforced by looking at how these areas impact on example research papers and how they may have been controlled.

Learning aim D: Draw conclusions from a research project in sport

- Learning aim D looks at the methods. that can be used to analyse different types of data to draw valid conclusions
- For D1, the focus is on managing and analysing data in both quantitative and qualitative research examples. Tutor presentations should cover the approaches to different types of data. Learners should be directed to use the data generated in their previous practical data collection sessions in learning aim B and apply the respective statistical analysis and coding approaches as delivered by the tutor. This learning could also be applied when reviewing example research papers, with group discussions around the approaches used and the types of data produced.
- For D2, the data analysis is extended to principles of drawing conclusions. Learners should look at drawing conclusions from their data used in D1 and also work in groups to review conclusions made in example research papers in relation to the hypotheses.
- D3 looks at how information is presented, delivered through group review of the example research papers, looking at the paper structures, writing styles, use of argument, use of diagrams etc.



Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit links to:

- Unit 1: Health, Wellbeing and Sport
- Unit 4: Ethics, Behaviours and Values.
- Unit 9: Nutrition for Physical Activity and Exercise
- Unit 31: Influence of Technology in Sport and Physical Activity
- Unit 34: Sport Development.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC International L3 Qualifications in Sport. Check the Pearson website at: (http://qualifications.pearson.com/endorsed-resources) for more information as titles achieve endorsement.

Textbooks

Gratton C and Jones I, *Research Methods for Sports Studies* (Second Edition), Routledge, 2010 ISBN 9780415493932 Useful textbook on research methods that will provide a helpful overview to many of the topics included in this unit.

Pitney WA and Parker J, *Qualitative Research in Physical Activity and the Health Professions*, Human Kinetics, 2009 ISBN 9780736072137 Useful textbook on qualitative research.

Journals

International Journal of Sports Science and Coaching (Sage) Useful journal to gain examples of research for learners to review.

Journal of Sports Sciences– (Taylor & Francis) Useful journal to gain examples of research for learners to review.

Qualitative Research in Sport, Exercise and Health (Taylor & Francis) Publishes different articles on qualitative research in sport, exercise and health.

Websites

https://www.bases.org.uk/imgs/bases_code_of_conduct872.pdf

British Association of Sport and Exercise Sciences Code of Conduct, which outlines different ethical considerations associated with research and professional practice.

https://www.bases.org.uk/imgs/ethics_and_participation_in_research_of_young_people625.pdf

British Association of Sport and Exercise Sciences expert statement on ethics and participation in research of young people, which outlines ethical issues unique to research with children and young people.

Pearson is not responsible for the content of any external internet sites. It is essential for tutors to preview each website before using it in class so as to ensure that the URL is still accurate, relevant and appropriate. We suggest that tutors bookmark useful websites and consider enabling leaners to access them through the school/college intranet.