

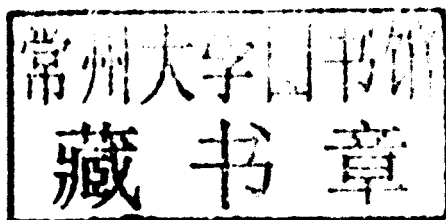
RESEARCH METHODS IN **PHYSICAL EDUCATION AND YOUTH SPORT**



Edited by Kathleen Armour
and Doune Macdonald

Research Methods in Physical Education and Youth Sport

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Doune Macdonald



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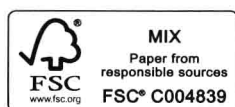
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Research Methods in Physical Education and Youth Sport

This is the first book to focus entirely on physical education and youth sport, it guides the reader through the research process, from first steps through to completion of a dissertation or practice-based project, and introduces key topics such as:

- formulating a research question
- qualitative approaches
- quantitative approaches
- mixed-method research
- literature review
- case studies
- survey, interviews and focus groups
- data analysis
- writing the dissertation.

Each chapter includes a full range of useful pedagogical features, including chapter summaries, practical activities, case studies, dialogues with active researchers and guidance on further reading and resources. With contributions from some of the world's best-known researchers in the field, this book is indispensable reading for all students and professionals working in physical education, youth sport, sports coaching and related subjects.

Kathleen Armour is Professor of Education and Sport, and Head of the Department of Sport Pedagogy at the University of Birmingham, UK. Her research interests are in teacher/coach career-long professional development, physical activity and health pedagogies, and the role of sport in the lives of disaffected/disengaged youth.

Doune Macdonald is Professor and Head of the School of Human Movement Studies, University of Queensland, Australia. Her research interests have addressed the challenges of curriculum reform and its impact, and more recently broader questions of physical activity, health and young people.

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Part I

Planning the research process

1 What is your research question – and why?

Kathleen Armour and Doune Macdonald

Who we are as researchers revolves around the questions that we ask.

(Brustad, 2009: 114)

[I]n research, as in life, what one finds depends on where one looks and how one looks – and the tools and methods that are used are determinative of these findings.

(Spencer Foundation Task Force, 2009: 28)

Pseudo-inquiry is ubiquitous: both the sham reasoning, making a case for a conclusion to which you are unbudgeably committed at the outset, and, especially, fake reasoning, making a case for a conclusion to the truth value of which you are indifferent.

(Haack, 2008: 34)

Introduction

Despite the fact that this is a research *methods* book, you should not assume that research begins with methods; it does not. Research begins with *questions* and researchers often care very deeply about both the questions and the potential answers. The identification of a viable research question is not, however, a straightforward process; the selection of questions is influenced by myriad factors including personal background, interest and skills, personal preference, available funding, sociopolitical factors and current trends. The primary purpose of this chapter, therefore, is to focus on how and why research questions are developed, and to encourage you to identify two or three questions against which the methods chapters that follow can be considered.

The secondary purpose of the chapter is to introduce the approach and structure of this book. Countless research methods books are available and, like many others, this book introduces a wide range of methods and methodological issues. In this text, however, we have taken a different approach. Each chapter has (at least) two authors: one senior, experienced researcher and one emerging researcher who was engaged in learning about the research method/issue addressed at the time of writing. Authors have approached the writing of their chapters in a range of ways, but one of the tasks we set them was to ensure that, where feasible, the voices of each author could be heard. Hence, in many of the chapters, the senior author presents material on a

method or approach, and the junior author offers comment on issues encountered while trying to use the method in their research. In this way, we hope that readers who are relatively new to some of these methods will be able to gain valuable insights into the research process in *practice* as well as in theory.

About us

Kathleen Armour, co-editor of this book, is Professor of Education and Sport and Head of the Department of Sport Pedagogy at the University of Birmingham in the UK. She has been working in the academic field of education, sport and physical education for about 25 years. Her research interests are all located in the academic spaces where sport and education meet, so she has been influenced strongly by research in the wider education field. In the last 10 years, Kathy has been involved in large, multidisciplinary teams of researchers undertaking longitudinal evaluations of government- and corporate-funded interventions. This collaborative research activity has given her new insights into the challenges and opportunities of working across traditional disciplinary boundaries. Kathy has also been active in trying to raise the profile and quality of educational research in physical education and sport coaching, and she is founder and lead convenor of the new Sport Pedagogy Research Network within the European Education Research Association. Most recently, Kathy has been appointed to the REF (Research Excellence Framework) panel for sport-related research, which is part of a periodic national assessment of published research undertaken in all subjects across all universities in the UK. It is interesting to consider the impact of such assessments on the research process, researchers' careers ... and the kinds of research questions that are valued.

Doune Macdonald, co-editor of this book, is a Professor of Health and Physical Education (HPE) and Head of the School of Human Movement Studies at the University of Queensland. She has been working as an academic in the field of HPE for about 25 years, having taught HPE in primary and secondary schools after her undergraduate degree. Over this time, she has had a range of research interests in the areas of HPE teacher education, curriculum and equity, and more recently in sociocultural questions around young people and physical activity. Several of these projects have been multidisciplinary and longitudinal, necessitating careful project planning, communication and management. She has worked with more than 15 research higher degree students who have been integral to her applied and commissioned research, grants and publications. Being a head of school, or chair of department as it might be known elsewhere, has given her insights into the changing context in which research is now being conducted in universities and the myriad of challenges that may arise for research students and early career academics.

What is research?

Research can be defined in many different ways, but at its heart is the notion of investigation – finding out – for a purpose. At its very simplest, a dictionary definition

tells us that research is a ‘methodical investigation into a subject in order to discover facts, to establish or revise a theory, or to develop a plan of action based on the facts discovered’. All research takes place within a broad social and political context, and this means that definitions shift, albeit subtly. For example, in the forthcoming assessment of research to be undertaken in universities in the UK, there is a strong emphasis on research ‘impact’. The draft definition of research for these purposes is: ‘a process of investigation leading to new insights *effectively shared*’. Different forms of research have purposes that can have a major influence on the ways in which the research process is conceptualized and questions formed. For example, critical theorists form their research questions from the fundamental standpoint of questioning ‘the assumption that societies such as the United States, Canada, Australia, New Zealand, and the nations in the European Union ... are unproblematically democratic and free’ (Kincheloe and Maclaren, 2005: 303). Researchers working in this tradition have the core purpose of using research ‘as a form of social or cultural criticism’ (ibid.: 304). Similarly, those engaged in participatory action research (PAR) have the stated objective of producing ‘knowledge and action directly useful to a group of people’ in order to ‘empower people at a deeper level through the process of constructing and using their knowledge’ (Nieuwenhuys, 2004: 210). What we need to take from all this is that researchers in different traditions tend to ask different questions for different reasons.

The range of situations in which we might engage in research is vast. At one end of the spectrum, it could be argued that we are engaged in a form of research much of the time in our daily lives, i.e., we investigate – sometimes in great detail – choice of university, holiday destination or buying a house. In this book, however, we are interested in formal research, which is ‘the systematic gathering, presenting and analysing of data’ (Burton and Bartlett, 2009: 3) with a view to expanding knowledge and solving problems. Importantly, and this point cannot be overstated, once we engage in research at the formal level, we are usually shifting from researching mainly undertaken for our own purposes to producing research findings which we intend to share with others. The intention is to develop new knowledge that could influence policy, theory and/or practice in the field in which we work. This means that we have a clear responsibility to ensure that research is undertaken rigorously, using the most appropriate design, methods, analysis, reporting and dissemination strategies, all of which must be compliant with increasingly exacting ethical standards. A critical understanding of the research process, and the strengths and weaknesses of different traditions and methods is therefore the hallmark of a professional approach to research.

Professional responsibility

Once researchers enter the public realm, it could be argued that they have a professional responsibility to the potential users of their research. For example, we would argue that physical education researchers have a professional responsibility to those teachers, pupils and policymakers they are seeking to inform. By this, we mean that researchers should address not only the questions in which they have a

personal interest, but also those questions that matter to teachers, schools, parents and policymakers. In other words, research at this level should be more than a personal hobby; indeed, in order to attract funding, research has to focus on areas of public interest. Following on from this, it is logical to suggest that researchers also have a professional responsibility to ensure that the research they conduct is fit for purpose, making best use of the range of appropriate methods and using the best research knowledge – and methods – available. Without this quality control imperative, poor research can enter the public domain and could have a negative impact on some users.

Research funding

This last point raises the issue of research funding and research questions. How can researchers retain an interest in their own questions, while simultaneously seeking funding and perhaps changing their questions in order to attract funding? What is the point of funding and do we need it? O’Sullivan (2007: 254) poses the following question:

As a scholar, you decide whether your interest in a particular research agenda is driven by access to research funding or whether the questions of interest are of keen significance and importance. Is it possible to do both?

One response to this is that doing both is not optional; rather it is essential, although it is also important to recognize that researchers tend to do different things at different stages in their careers. It is unlikely, for example, that a cell biologist will be allowed to enter a PhD programme and work entirely alone on a topic of choice that is not part of a larger, funded research programme. On the other hand, it is possible that a researcher in the social sciences, including aspects of physical education and coaching, will have more freedom, working with a supervisor and perhaps without any external funding. We have argued elsewhere, however, that the field of physical education has not been served well by the predominance of lone, essentially part-time researchers who are also academics with large teaching and administration commitments (Armour, 2010; Macdonald, 2009). The field has suffered from a lack of funding to support large, sustained research teams that are common in the natural sciences, and this has restricted the ability of physical education researchers to ask ‘big’ research questions and to answer them effectively and robustly. It could be argued that this has resulted in a quantity and quality of research knowledge that is unable to inform practice with confidence.

Research purposes

It is important to recognize that research is undertaken at different points in a career for different reasons – e.g., study for university credit, a research degree, a commissioned project – and that the reason will, to some extent, guide how the experience unfolds. In particular, underpinning reasons shape the purpose of your

research and the questions you want to ask matched to the time available. For those undertaking an undergraduate honours project or a research degree (such as a Master or Doctor of Philosophy), it is important to consider what you might want from your research experience. Are you looking for this research experience to take you into a university career, or are you developing a skills set that will be most useful to industry (e.g. working as a coach, being promoted to advanced teacher status)? If it's the former, your research project is very much a building block upon which your career trajectory may be built. The presumed goal of undertaking an MPhil or PhD is for you to demonstrate that you can operate as an independent researcher and, preceding this, an honours project may signify your readiness to undertake a higher degree.

Research also has a number of formalized terms that describe its purpose. Traditionally, universities talk in terms of basic and applied research, where *basic* or *pure* research is an activity in which academics are free to engage driven by the pursuit of truth for its own sake. This kind of research often has the goal of generating theory and discovering 'fundamental facts'. *Applied* or *field* research uses a rigorous system of inquiry to apply new knowledge to everyday problems. It is most likely that your research project will fall into this latter category if you work with teachers, coaches, students, athletes, parents, or policies to understand and refine practice. As was noted earlier, commissioned research occurs where organizations such as government agencies, sporting groups, school systems etc., want a particular research project undertaken and they pay researchers to do this under contract. These projects will, to some extent, delimit some of the questions asked, perhaps the methods employed, budget, timelines, and opportunities for publishing the findings.

Much large-scale, commissioned research in the field of physical education and sport takes the form of evaluations. The research is usually undertaken to assess the effectiveness of an intervention such as a new programme or policy. Even in this case, however, the research process is less straightforward than it might at first appear. For example, Weiss (1998) has identified clashes between the needs of researchers and those of corporate or government sponsors in evaluation research. Researchers tend to want more time than is available (Rossi *et al.*, 2004) and are keen to identify both positive and negative impacts of the intervention. Sponsors, on the other hand, might, for a variety of reasons, prefer to hear only the positive outcomes of the research. Sponsors might also have very fixed views about methods, making it difficult for researchers to design appropriate studies, and they might believe that research can always identify the kind of direct and simple lines of causation that are needed to demonstrate a programme has 'worked'. This is particularly problematic in the social sciences because expectations tend to be rooted in natural science models of research. Nonetheless, where unrealistic expectations of research exist, negotiation with sponsors can clarify misunderstandings and some compromise may be required. Challenges of this type are rarely insurmountable: they are simply part of the reality of the research process; research questions are never asked – or answered – in a vacuum.

Contribution to knowledge

Another way to think about research questions is to consider the purposes of research and the types of knowledge to which it contributes. Gall, Gall and Borg (2007) suggested the following ways in which research might contribute to knowledge:

Description – involves using a range of instrumentation (e.g. pedometers, surveys) to describe natural or social phenomena. You may be interested in whether a coach is giving equal feedback to boys and girls, or how teachers are following a new physical education syllabus.

Prediction – allows us to forecast when something might occur in the future based upon current information. For example, given the trends for participation in junior soccer, when might the competition schedule need to change or more coaches be required?

Improvement – looks at the effectiveness of interventions designed to improve practice. Education and sporting systems are constantly adjusting their approaches, resources, pedagogies etc., to improve learning and performance outcomes. Research can inform the efficacy of the interventions.

Explanation – to some extent subsumes the above purposes, in that explaining a phenomenon means you can describe it, predict how it will play out and intervene to change the consequences. Often, explanations for phenomena, such as boys' stereotypical behaviours in sport, are framed as theories and, in the example used here, feminist theory may be helpful.

Clearly, each of these different types of contribution to knowledge will require different kinds of research questions. We invite you to consider the contribution that you are interested in making through your proposed research.

Shifting research contexts

Potential issues around funded research were signalled earlier. It was also noted that research never takes place in a vacuum, and this means that wider social, political and economic factors will, inevitably, impact on the research questions that can be asked and the findings that will be 'heard'. As John Evans (2009: 107) has pointed out:

That we story our lives into existence and, just as critically, have them storied into existence for us by powerful others more capable of making their views and values heard, perhaps goes without saying ...

In the context of universities, philosophers and educational sociologists have been arguing for some time that with the drive to increase the rate of knowledge production, commissioned research is likely to continue to grow such that 'Knowledge is and will be produced in order to be sold' (Lyotard, 1984: 4–5). Marginson (1997) identified the period from the 1980s as a time of fundamental change with respect to the research activities of universities. There was a shift