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Rojon, Céline[1] & Saunders, Mark N. K. [2]

[1]*Department of Psychology & The Surrey Business School, University of Surrey, Guildford, GU2 7XH United Kingdom;*
[2]*The Surrey Business School, University of Surrey, Guildford, GU2 7XH, United Kingdom.*

Details of corresponding author:
Céline Rojon
Department of Psychology
University of Surrey
Guildford
Surrey
GU2 7XH
United Kingdom
e-mail: c.rojon@surrey.ac.uk

Notes on contributors:

Céline Rojon is a PhD researcher in the Department of Psychology and The Surrey Business School at the University of Surrey. Her research looks at the conceptualisation and measurement of individual workplace performance and includes, amongst others, online surveys evaluating a new model and measure of performance. She has previously conducted research into the validation of a new instrument for use in cross-cultural coaching. Other research and practice interests are in the areas of assessment and selection, particularly the development and application of psychometrics. Her research findings have been published in a range of journals such as *Journal of Personnel Psychology* and *International Journal of Evidence Based Coaching and Mentoring*.

Mark NK Saunders is Professor in Business Research Methods at the Surrey Business School and Director of Postgraduate Research Programmes for the Faculty of Business, Economics and Law at the University of Surrey. His research interests focus on two themes. The first, research methods, includes online research methods, methods for researching trust and the development of tools to learn about, understand and improve organisational relationships within a process consultation framework. The second, human resource aspects of the management of change, is concerned particularly with trust and justice. His research findings have been published in a range of journals including *Employee Relations*, *European Journal of Work and Organisational Psychology*, *Field Methods*, *Journal of Personnel Psychology*, *Management Learning*, *Personnel Review* and *Service Industries Journal*. Recent books include: *Research Methods for Business Students* (2012, FT Prentice Hall), currently in its sixth edition, co-authored with Phil Lewis and Adrian Thornhill; *Doing Research in Business and Management* (2012, FT Prentice Hall), co-authored with Phil Lewis; and *Handbook of Research Methods on Trust* (2012, Edward Elgar) co-edited with Guido Möllering and Fergus Lyon.

Abstract

Explaining the purpose of a research study and providing a compelling rationale is an part of any research project, enabling the work to be set in the context of both existing evidence (and theory) and its practical applications. This necessitates formulating a clear research question and deriving specific research objectives, thereby justifying and contextualising the study. In this research note we consider the characteristics of good research questions and research objectives and the role of theory in developing these. We conclude with a summary and a checklist to help ensure the rationale for a research study is convincing.

Keywords: rationale; research question; research objective; theory

Introduction

Research is about systematically obtaining and analysing data to increase our knowledge about a topic in which we are interested. In undertaking research, we are trying to answer a question or address a problem, this often being referred to as 'meeting the research aim' or 'addressing the research objectives'.

However, research problems, questions, aims or objectives need to be stated clearly and justified in order to overcome 'so what?' or 'why bother?' questions. In other words, we need to state the purpose of the research and provide a clear rationale as to why this purpose is important, in relation to both existing knowledge (including theory) and, often, with regard to the implications for practice.

The purpose of this research note is to offer clear guidance regarding how to formulate a research question and research objectives and provide a convincing rationale for a research study. Research methods texts (for example Gray, 2009; Robson, 2011; Saunders, Lewis & Thornhill, 2012) consistently argues that a clear research question and/or research objectives supported by a convincing rationale that is justified by the academic literature is an essential building block for high quality research. We therefore commence by outlining and explaining the characteristics of good research questions. Next, we consider how to refine a research question into precise research objectives. We then explore the use of theory in

developing and providing a convincing rationale for both research questions and research objectives, concluding our note with a summary and checklist.

The characteristics of good research questions

Having a good understanding of what it is we are going to research is vital at the beginning of the research process and formulating a clear research question is instrumental to this endeavour. Without this, and even though we may have some explicit ideas about our research, planning and conducting the study is challenging. Not specifying a research at the outset of our study as a question we wish to answer, or a series of objectives to be met will make the entire research process fraught. The research question and research objectives provide direction regarding the data we need to collect (to answer it!) and the precise focus of the conclusions based on our study's findings.

Formulating a research question is an intellectually challenging and time-consuming undertaking (Saunders & Lewis, 1997). The wording of the question is crucial, as we need to ensure that the answer we find through our research will provide new knowledge about a topic or look at a theme from a different angle and, for readers of this journal, be of interest to those concerned with the theory and the practice of coaching. As such, we can characterise a suitable coaching research question as one that is grounded in what we already know (from relevant literature in coaching) and also appears likely to provide new insights into the topic being investigated.

In the context of 'insights', we can distinguish between two basic types of questions: descriptive and explanatory. Descriptive research questions typically start with 'What', 'When', 'Where', 'Who' or 'How' (e.g. 'What percentage of coachees report that coaching helped them with a problem they experienced?'). Although relatively easy to answer, on their own these rarely provide new insights into theory. Explanatory (sometimes termed evaluative) questions on the other hand usually start with 'Why' (e.g. 'Why did 65% of coachees report that coaching helped them with a problem they experienced?'). Not surprisingly, these require prior knowledge of what is occurring – for example, the fact that 65% of coachees had reported that coaching helped them with a problem they experienced. They are also more challenging to answer since they require the researcher to provide an

explanation regarding why something happened and relate this to what is already known, providing theoretical insights.

In reality, our research questions more often than not start with 'What' or 'How' to find out precisely what is occurring. They then go beyond description, by also seeking evaluative answers. Questions such as 'How effective is the coaching process at helping coachees to solve a problem they experience and what are the reasons for this?' or 'To what extent is the coaching process effective at helping coachees solve a problem and why?' require not only description, but also explanation. Such descriptive-explanatory questions can, like explanatory questions, provide a firm base for research.

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We have asserted that some research questions may require descriptive answers and offer few insights – yet, unless we phrase explanatory questions carefully, we may be faced with questions that are not specific enough to be suitably addressed within our research study. An example of an insufficiently specific question might be: 'In what ways do coachees report that coaching helped them with problems they experienced and why?'. Such a question is extremely wide ranging and likely to generate long lists of ways, which may or may not be directly related to the coaching process (maybe the decision alone to seek out coaching triggered a thought process about the solution for the problem). This is likely to make it difficult to establish what is actually occurring from within the myriad of interrelationships between potentially relevant ways and problems.

In terms of timing, whilst a research question is usually decided at the very beginning of a study, it will invariably be amended and refined as the research progresses and more becomes known, particularly from reviewing academic literature (Saunders & Rojon, 2011). Some (e.g. McNiff & Whitehead, 2000) argue this is less likely the case for practitioner-led action research, since determining the research question(s) may be part of a 'progressive illumination' process. However, it is important to note that for such studies the research question, often expressed in a series of research objectives, usually forms a key part of the research contract between the practitioner-researcher and the organisation (Saunders, 2011). This means subsequent amendments may be difficult!

Formulating research objectives

In order to formulate research objectives, we have found it helpful to start with just one research question, which may be specified by employing the 'Russian doll principle' (Clough & Nutbrown, 2002). In a similar way to the Russian doll being disassembled to eventually reveal a minuscule doll, this entails disassembling or removing the various layers of the initial research question to arrive at its core. Subsequently, our overall research question may form the basis for determining more precise investigative questions or research objectives that we need to meet in order to answer our overall research question (Saunders et al., 2012).

In comparison to a research question, research objectives are more specific, giving a clear indication of the research purpose and direction and providing additional information over the research question. Whilst a research question indicates the topic or issue of the study, research objectives operationalise the question, in other words they state precisely what needs to be researched. Research objectives are therefore instrumental in enabling the research question to evolve into an actual study.

To operationalise our research question and formulate research objectives that are fit-for-purpose, we need to ensure these are i) transparent (i.e. comprehensible and unambiguous), ii) specific (i.e. the precise research purpose and how it will be achieved is apparent), iii) relevant (i.e. clearly linking to the study as a whole), iv) interconnected (i.e. representing a coherent entity), v) answerable (their planned outcome is attainable) and vi) measurable (i.e. specifying when the outcome will be achieved) (Saunders & Lewis, 2012). Formulating research objectives will usually necessitate more rigorous thinking compared to writing a research question as the former are more precise and provide additional information over the latter (Table 1).

Table 1.

Deriving research objectives from research questions.

Research question	Research objective
1. Why have organisations introduced coaching programmes for senior managers?	1. To identify organisations' objectives for coaching programmes targeted at senior managers.
2. How can the effectiveness of coaching	2. To establish suitable effectiveness criteria

programmes for senior managers be measured?	for coaching programmes aimed at senior managers.
3. Have coaching programmes for senior managers been effective?	3. To describe the extent to which the effectiveness criteria for coaching programmes for senior managers have been met in published studies.
4. How can the effectiveness of coaching programmes targeted at senior managers be explained?	4a. To determine the factors associated with the effectiveness criteria for senior managers' coaching programmes being met.
	4b. To assess whether some of those factors are more influential than other factors.
5. Can the explanation be generalised?	5. To develop an explanatory theory that associates certain factors with the effectiveness of coaching programmes targeted at senior employees.

Using theory

Theory plays an integral role in the development of a research question and research objectives. To illustrate this, we draw on Whetten (1989), who identified four components of theory, namely 'what', 'how', 'why' and a fourth group of 'who', 'where' and 'when'.

The first of these components is concerned with the variables or concepts that the theory considers. A theory used in coaching such as goal setting theory (e.g. Locke & Latham, 2002) examines goals as a concept, in other words something an individual or group is intending to achieve. This theory sees goals as important for the regulation of human behaviour, indicating that the action of setting goals can be a powerful leverage for individuals' progress.

The second element is concerned with how these variables or concepts are related. If we consider goal setting theory in the context of coaching research, a research question might examine the relationships between the use of goal setting theory in coaching and the success

of the coaching process. It is clear from this that theory is concerned with causality, in other words with cause and effect. We are interested in understanding whether and how the setting of goals impacts on the success of the coaching process.

The third component considers why these variables or concepts are related; in other words the reasons for the relationships between the variables or concepts. Thus, whilst 'what' and 'how' can be understood as descriptive components, the 'why' is explanatory (Whetten, 1989). The distinction between 'how' and 'why' may become more apparent by considering our example: Previous research findings may suggest that goal setting can be an effective tool for coaching, mainly in the early stages of the coaching process. As such, other researchers have already examined the 'how', observing there is a relationship between the two variables of goal setting and coaching success. Yet, we still need to answer the 'why' question – 'why is there an apparent relationship between goal setting and coaching success?' and also 'why is the relationship more apparent at the early stages of the coaching process?' We therefore use existing theory to support our use of logical reasoning when suggesting possible reasons (suggesting answers to 'why'). Within this we base our argument on our knowledge from previous research about the 'what' and 'how' ('reasoning'). We therefore use previous research to both identify what is already known and where there are gaps in our knowledge, thereby informing and justifying our research objectives (Saunders & Rojon, 2011). Drawing on our logical reasoning, we may develop a theoretical model to predict new outcomes following a manipulation of its variables or concepts. In our example, our theoretical model may predict that success in the coaching process following goal setting will translate into improved workplace outcomes, such as higher job satisfaction or increased job performance.

It is important to recognise, however, that the existing theory we use will invariably be based on research that is both context and time-bound. This is what the fourth group of Whetten's elements addresses: who does this theory apply to; where does this theory apply; when does this theory apply? Referring again to our example, we may have realised that much previous research was undertaken with senior executives, rather than middle managers. Furthermore, we may have recognised that whilst the conclusions are applicable to Western European cultures, we can be less certain of their relevance to other cultures. These 'gaps' in theory can be used to refine the focus of our research as well as justify our research question and objectives, emphasising why our research findings are likely to be valuable.

Thus far, we have highlighted how theory and related literature may present us with ideas for a study (Lewin, 1945; Van de Ven, 1989). Yet, besides this, good theory may also suggest important areas for future research. In this way, we may be able to derive a research question and a set of variables or concepts from theory and use these to examine the extent to which and the reasons why they may be related in the context of our own research (Saunders & Rojon, 2011).

Summary

Research questions need to be phrased to allow theoretical explanations to be developed (even if these are limited). A research question such as 'How satisfied are employees with the introduction of coaching as a tool for personal development?' will not lead to a theoretical explanation, but rather a descriptive outcome. Rephrased as 'What are the implications of introducing coaching as a development tool for employee productivity and why?', it encourages the researcher to examine relationships and their potential source, providing theoretical explanations.

Being able to provide meaningful explanations requires answers to 'why' (i.e. explanatory) questions in addition to 'what' (i.e. descriptive) questions. Data from opinion surveys, for example, may allow the researcher to derive clear conclusions only if respondents have been asked about their beliefs as well as the reasons for holding such beliefs (Mackenzie, 2000a; 2000b). Take the following survey extract: 'To what extent are you satisfied with the range of opportunities for personal development provided by your company.' This question is likely to require respondents to answer using a satisfaction scale with scale points such as 'very satisfied', 'reasonably satisfied', 'slightly satisfied' and' 'not at all satisfied'. Whilst the data gathered from this question may be useful for analytical purposes, for example to indicate the level of satisfaction at an organisational or departmental level, it is not possible to draw conclusions or recommendations from it, since we cannot provide a rationale for the level of satisfaction.

Having formulated your research question and objectives, it is important to ensure that these represent a convincing rationale for your study. To support researchers in this, we conclude by offering the following questions as a summary checklist:

(1) Does your research study add value through one of the following options:

    a) it addresses a new topic

    b) it promises new insights into a topic by examining it from a different angle

    c) it replicates research to corroborate earlier findings?

(2) Is your research study of interest to those concerned with the theory and the practice of coaching?

(3) Does your research question provide a clear link to relevant theory and related literature?

(4) Does your research question require an answer that necessitates evaluation?

(5) Do your research objectives state clearly how the topic being investigated will be operationalised, in other words do they address the 'how' of your study?

(6) Are your research objectives fit-for-purpose, in other words meet the criteria of being transparent, specific, relevant, interconnected and answerable?

(7) Have you used logical reasoning to explain and justify your research objectives?

(8) Will you be able to draw meaningful conclusions and recommendations from data that are gathered to meet your research objectives?

References

Clough, P. & Nutbrown, C. (2002). *A student's guide to methodology*. London, England: Sage.

Gray, D. E. (2009). *Doing research in the real world* (2nd ed.). London, England: Sage.

Lewin, K. (1945). The Research center for group dynamics at Massachusetts Institute of Technology. *Sociometry, 8*(2), 126-136.

Locke, E. A. & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation. A 35-year odyssey. *American Psychologist, 57*(9), 705-717.

Mackenzie, K. D. (2000a). Knobby analyses of knobless survey items, part I: The approach. *International Journal of Organizational Analysis, 8*(2), 131–154.

Mackenzie, K. D. (2000b). Knobby analyses of knobless survey items, part II: An application. *International Journal of Organizational Analysis, 8*(3), 238–261.

McNiff, J. & Whitehead, J. (2000). *Action research in organizations*. London, England: Routledge.

Robson, C. (2011). *Real world research* (3rd ed.). Oxford, England: Blackwell.

Saunders, M. N. K. (2011). The management researcher as practitioner. Issues from the interface. In C. Cassell & W. J. Lee (Eds.), *Challenges and controversies in management research* (pp. 243-256). London, England: Taylor and Francis.

Saunders, M. N. K. & Lewis, P. (1997). Great ideas and blind alleys? A review of the literature on starting research. *Management Learning, 28*(3), 283–299.

Saunders, M. N. K. & Lewis P. (2012). *Doing your research project.* Harlow, England: FT Prentice Hall.

Saunders, M. N. K., Lewis, P. & Thornhill, A. (2012). *Research methods for business students.* (6th ed.). Harlow, England: FT Prentice Hall.

Saunders, M. N. K. & Rojon, C. (2011). On the attributes of a critical literature review.

Coaching: An International Journal of Theory, Research and Practice, 4(2), 156-162.

Van De Ven, A. H. (1989). Nothing is quite so practical as a good theory. *Academy of*

Management Review, 14(4), 486-489.

Whetton, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management*

Review, 14(4), 490-495.