

# What constitutes evidence-based coaching? A two-by-two framework for distinguishing strong from weak evidence for coaching<sup>1</sup>

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## Abstract

There has been an almost exponential growth in the amount of coaching-specific and coaching-related research over the past ten years. At the same time there has been considerable interest in the development of evidence-based approaches to coaching, and many coaching practitioners have incorporated the phrase into their terms of reference for their practice. However, there is still a lack of clarity about what constitutes evidence-based coaching, and there have been few, if any, published guidelines about how to determine the relevance of different bodies of research to coaching practice. This article discusses the nature of evidence-based practice as it relates to coaching and then presents a two-by-two framework that highlights the relevance of a broad range of research to evidence-based coaching practice. The aim of this paper is to help further develop a more nuanced view of evidence-based approaches to coaching practice.

**Key words:** evidence-based coaching; coaching research; evidence-based practice

## Introduction

The volume of published material associated with coaching has increased substantially over the past ten years. This growing body of knowledge spans a broad range from rigorous coaching-specific research (both qualitative and quantitative), to basic research in disciplines not specifically related to coaching (Bartlett II, Boylan, & Hale, 2014; Beattie et al., 2014; Grant, Passmore, Cavanagh, & Parker, 2010). The diversity of this material (and the accompanying sense of information overload), can make it difficult for both researchers and practitioners to grasp the relevance of specific information from the developing knowledge base and engage in an evidence-based approach in their own personal coaching practice (Bawden & Robinson, 2009).

This article briefly discusses the nature of evidence-based practice as it relates to coaching. It then presents a framework that delineates the relevance to evidence-based coaching practice of a broad range of coaching-related research, ranging from coaching-

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specific research to noncoaching-specific research. The aim of this paper is to help further develop a more nuanced view of evidence-based approaches to coaching practice.

### **Origins of the concept of evidence-based coaching**

Adapted from its original use in medical contexts (Sackett, Haynes, Guyatt, & Tugwell, 1996) the term evidenced-based coaching was coined at the Coaching Psychology Unit in the University of Sydney in 2003 as a way of distinguishing between coaching that is explicitly grounded in the broader empirical and theoretical knowledge base, and coaching that was developed from the pop psychology, personal development genre.

At the time this term was coined the intention was merely to have an expression that indicated that here was an approach to coaching that sought to be grounded on firm and coherent foundations – empirical and theoretical foundations that would allow a discipline of coaching to develop with the same gravitas as other helping professions such as counselling or clinical psychology. Indeed, at the time the term was more aspirational than actual.

However, the notion of evidence-based coaching seems to have resonated with many people in the coaching industry globally (e.g., Cox & Ledgerwood, 2003; Larsen, Kilburn, & Myszak, 2007). A search of Google Scholar in December 2015 using the key words evidence-based coaching returned 2,400 hits and a search in Google returned 43,400 hits. There are now peer-reviewed academic journals focusing on evidence-based coaching, university postgraduate degree courses emphasising evidence-based coaching, and many coaching practitioners who have incorporated the phrase into their terms of reference.

### **What does evidence-based coaching really mean?**

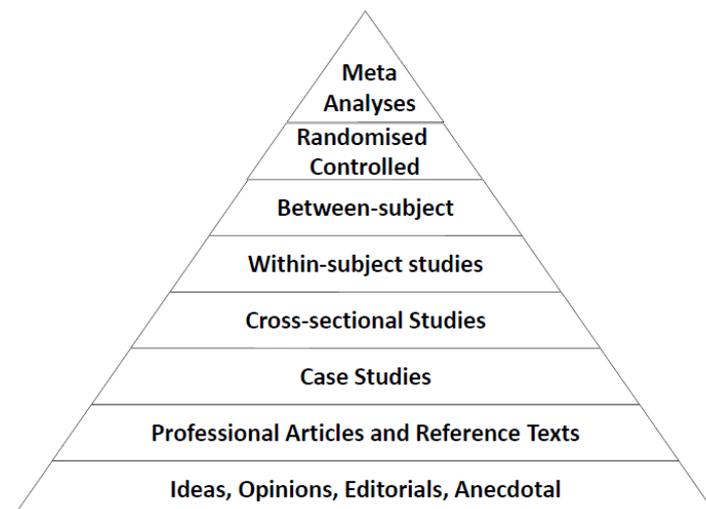
But what does evidence-based coaching really mean? The concept has sparked quite vigorous debate on the role of scientific evidence in coaching, and what constitutes evidence (e.g., Drake, 2009). Such debate makes a significant contribution to helping coaching as a discipline not to be confined within the ridged boundaries of (say) a medical or reductionist paradigm (Cox, 2011). This is important because the term evidenced-based within medical contexts is almost synonymous with double-blind randomised-controlled trials and mechanistic manualised treatment protocols. A key underpinning notion in the medical context is that research should dictate practice. However, this is not the case in relation to coaching. Coaching engagements are not medical interventions that follow prescribed regimes. The nonclinical, nonmedical context of coaching means that the medical understanding of evidence-based practice may be unsuitable for coaching – although few would argue that applying evidence to practice is not a valuable way of further developing coaching as a discipline.

## A broad definition of evidence-based coaching

Hence I take a broader and less reductionist view of evidence-based practice than is typically found in medical contexts. I draw on the assumption that translating research into coaching practice (and conversely translating coaching practice into coaching research) can optimise outcomes and lead to more rigorous (and vigorous) coaching research and practice. From this perspective both empirical evidence and professional wisdom (wisdom being comprised of experience, knowledge, and good judgement) have considerable and often equal value. Consequently I prefer to employ a more sophisticated understanding of the term “evidence-based” and refer to the *intelligent and conscientious use of relevant and best current knowledge integrated with professional practitioner expertise in making decisions about how to deliver coaching to coaching clients and in designing and delivering coach training programs* (adapted from Sackett, et al., 1996; Stober & Grant, 2006).

### What is evidence? How can we best collect it?

A key notion in evidence-based practice in medicine is that research methodologies (and the evidence derived from them) can be classified as being “good” or “poor”. In medical science (and those sections of psychology that seek to emulate the medical model) the typically accepted gold standard of research is the evidence collated from meta-analyses – systematic reviews of a number of randomised controlled trials (RCTs) (Kaptchuk, 2001). At the next level of the research hierarchy is the evidence collected from the RCTs themselves. These are studies where participants have been randomly allocated to a treatment or a control group. Double-blind RCTs, where neither the researcher nor the participant knows which group they are in, are clearly useful for testing of new therapeutic medications. These studies are used with the aim of giving researchers as much control over extraneous influencing factors as possible. The emphasis at this end of the research hierarchy is on quantitative data; data that can be counted and statistically analysed.



**Figure 1: The traditional evidence-based hierarchy**

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As indicated in Figure 1, at the next level are between-subject studies. These are studies that use a control group as a comparison to a treatment group, but without the randomisation found in RCTs. Next sit the within-subject studies that use pre and post measures from a single group of people. Below these sit cross-sectional studies which are descriptive or correlational studies. These can give good insights into the relationships between various factors, but cannot give insight into causal factors. Case studies come next in the hierarchy.

Case studies are typically qualitative in nature. Here the research emphasis is usually on understanding the nature or the meaning of subjective experience, and this can be from an individualistic or organisational perspective. They are normally conducted using various interview techniques and have the potential to produce rich and highly insightful narratives rather than numerical data that can be statistically analysed. Finally, at the base of the hierarchy are professional articles in non peer-reviewed publications, opinions, editorials and anecdotal reports.

Those who subscribe to the medical model tend to place far greater emphasis and value on the upper parts of the hierarchy. Indeed, most people would agree that RCTs are the best way thoroughly to test the effectiveness of medical interventions such as new drug treatments. However, as previously mentioned, coaching is not medicine. Indeed, given that much coaching does not follow prescribed or manualised treatment regimes, the medical model may be a somewhat inappropriate framework from which to develop an evidence-based approach to coaching.

It is important to recognise that each level in the evidence-based hierarchy has its own unique and valuable characteristics. The evidence gained from each level tells a slightly different type of story, and the evidence gathered at each level will speak to different audiences. For example, the quantitative outcome or ROI data produced from RCTs or within-subject studies is more likely to resonate with a group of sceptical scientists or business audiences than a qualitative detail-rich exploration of personal experiences of coaching. Thus, from this perspective and in contrast to the medical approach, one level is not deemed better than another in the coaching context; rather each has its different uses. If we cannot say that one is better than another, we can only really say that one is better suited to the situation in which we seek to use that evidence.

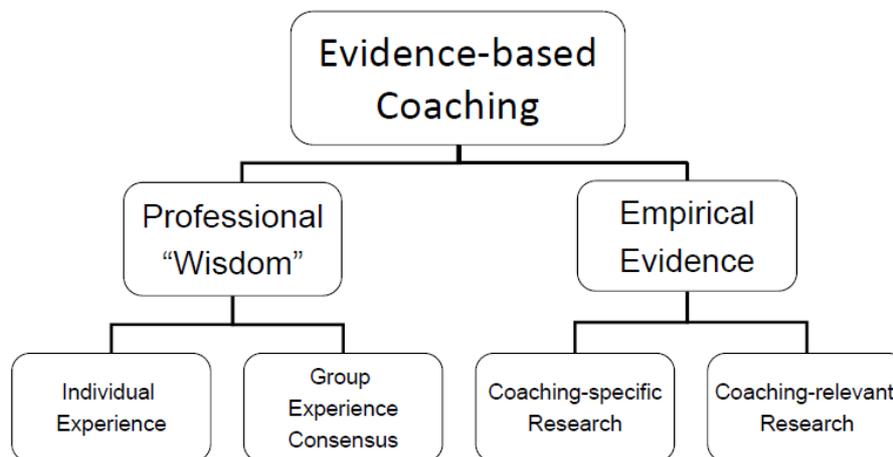
It is also important to recognise that evidence in coaching does not just come from scientific empirical research. Evidence is defined as the available body of facts or information indicating whether a belief or proposition is true or valid (OED, 2012). As such evidence is not limited to the research outputs or scientific studies. Evidence simply means information – and all kinds of information can count as evidence, just as long as it is valid, reliable and relevant. Bearing in mind that some evidence is more reliable than others, this perspective allows for multiple voices – from both researchers and informed practitioners (for an in-depth deconstruction of the term “evidence” see Drake, 2009).

## Practitioner expertise and empirical research

Figure 2 illustrates the joint contributions of professional practitioner expertise and empirical evidence. Professional wisdom consists of individual experience about what works in one's coaching practice with one's clients. The individual coach's perspective is important here because coaching is typically an idiosyncratic intervention, not least because the coach-coachee relationship is a major factor in coaching outcomes, and that relationship is by its very nature idiosyncratic.

Although individual views are important, sole reliance on them may result in a myopic perspective. Hence the practitioner group consensus, which allows for multiple perspectives about what works, is also important. This is not to say that practitioner group experience can present an unbiased or objective view on what works. Within any group or subgroup of professionals there are political and social forces at play which will shape the emerging narrative or consensus about what is the best or right way. Nevertheless, regardless of its limitations, it is clear that practitioner wisdom has a vital role in shaping understandings of evidence-based coaching.

The right hand side of Figure 2 represents the role of empirical evidence gathered from research. The first issue to be addressed here related to the boundaries between practitioner experience and formal research. There is a sense in which practitioner experience gained as a result of professional coaching practice can be rightly considered to be research (or evidence). However, following the rationale outlined by a number of eminent authors in the action learning sphere (e.g., Argyris & Schön, 1992; Revans, 1982), I argue that there is an important distinction between information gained in one's professional practice and information gained through formal research initiatives.



**Figure 2: The contributions of practice and research to evidence-based coaching**

In the context of professional practice, the primary purpose is the improvement of practice. The emphasis is on practical significance, and this information tends to be shared through contacts with one's colleagues, professional or industry associations. In contrast, the aim of formal research is to produce more generalisable knowledge that

contributes to the broader knowledge base. The emphasis is often on theoretical significance rather than practical application, and the information tends to be shared primarily through peer-reviewed publications, academic conferences, and only then is it disseminated for professional purposes. They are different and they make different contributions to an evidence-based approach to coaching (see Table One).

|   | <b>Academic Researcher</b>  | <b>Practitioner</b>   |
|---|---|---|
| <b>Primary purpose of conducting research</b> | Production of knowledge   | Improvement of one's professional practice.   |
| <b>Emphasis on</b>                            | Contributing to the knowledge base and theoretical significance   | Practical significance  |
| <b>Validation of information</b>              | Knowledge is deemed "validated" only after a comprehensive analysis, thorough documentation (typically in rigid discipline-specific writing and presentation style) and peer review | Factors that "validate" knowledge include face validity, acceptance by clients or stakeholders, public receptivity, marketability, practical applicability. |
| <b>Dissemination of information</b>           | Peer-reviewed publication and academic conferences take place before information is presented to public/professional media  | Shared through multiple channels including professional associations, industry contacts and clients, and social media                                       |
| <b>Primary discourse style</b>                | Discipline-specific jargon and (often dense) academic language which excludes non-academics   | Easily accessible, to-the-point language, designed to reach broad audience.   |

**Table 1: Differences between researcher's and practitioner's approach to research**

### **What constitutes empirical research evidence about coaching?**

The second issue to be addressed relates to what constitutes empirical research evidence about coaching. Here I propose two categories: 1) coach-specific research and 2) coaching research that is not specific to coaching but can be considered to be coaching-related research.

*Coaching-specific research* involves studies that specifically focus on coaching with coaching as the primary focus. These could include, for example, studies that examine the effectiveness of coaching, the impact of coaching on a range of variables, or qualitative research into the nature of effective coach-coachee relationships amongst others. This would also include models or techniques from other non-coaching areas or disciplines which can be directly applied in coaching practice – examples here could include cognitive behavioural techniques from clinical psychology, action learning principles or adult learning theory.

*Coaching-related research* involves studies that are not specifically focused on coaching, but produce data that could be used in coaching practice or might indirectly inform coaching practice. These could include, for example, research from economics, management or organisational research, philosophical paradigms, systems theory, neuroscience etc. However, in understanding what constitutes empirical evidence these are not the only categories that count. We also need to consider the rigour and strength of the evidence presented.

*Strong evidence* can be understood as information and evidence from well-designed and peer-reviewed studies where the methodology is eminently suitable for the research question being addressed, and the results have been replicated in a range of populations where appropriate. It should be emphasised that this is an inclusive position that does not automatically privilege (for example) randomised controlled studies over case studies, as is the case in the medical model. Nor does this position privilege quantitative research over qualitative research. Both approaches have much to offer. Rather this position acknowledges that different research designs and approaches have utility for addressing different research questions.

In contrast, *weak evidence* is when there are a small number of studies, limited numbers of researchers/sources, limited numbers of research methodologies with limited populations, or poor quality research design, for example with low statistical power or inappropriate analyses. Typically, these are not peer reviewed, and this would include opinion articles or anecdotal, unsubstantiated reports.

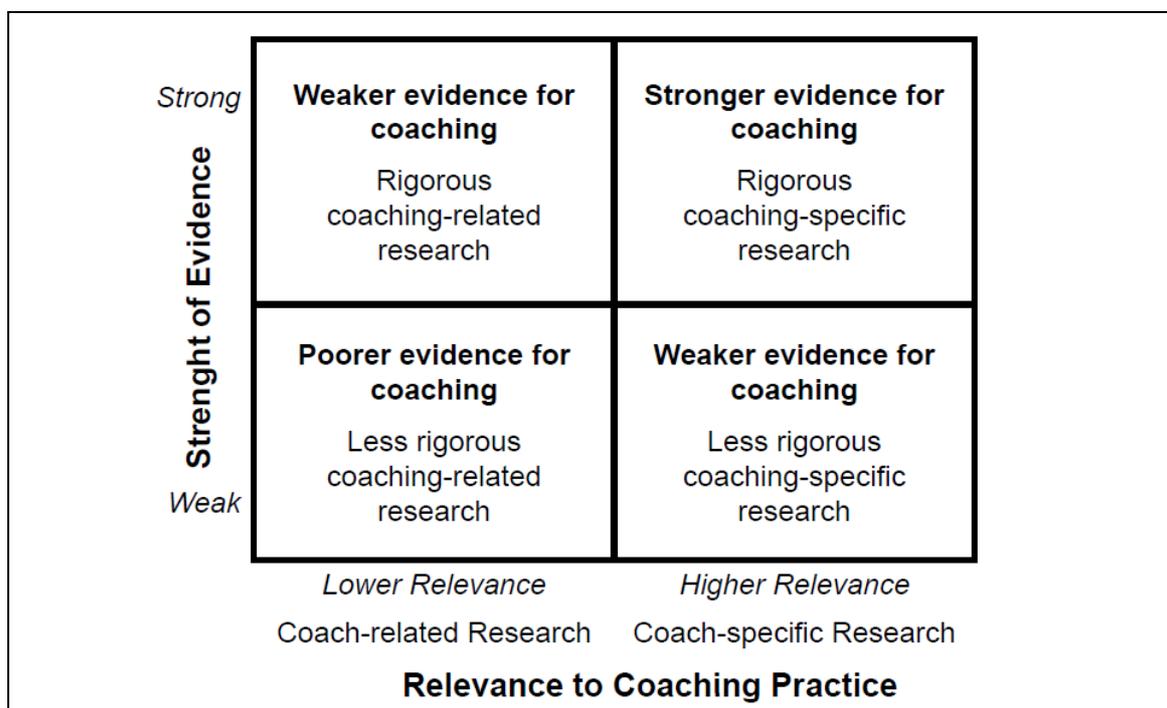
### **A two-by-two framework**

A useful way to present the concepts discussed in this paper is through a two-by-two diagram (see Figure 3). This figure is presented as a useful heuristic through which to categorise and classify different bodies of research. No doubt there would be a wide range of opinions as to which studies or which bodies of knowledge should sit within each quadrant – and it should be noted that this framework is designed to be an aid to those who wish to develop a more sophisticated understanding of evidenced-based coaching – rather than a definitive typology. Nevertheless, I would argue that well-designed randomised controlled studies with a range of populations would be situated in the top right hand quadrant (for examples see Theeboom, Beersma, & van Vianen, 2013), along with other methodologies such as well-designed case studies (e.g., Libri & Kemp, 2006; Schnell, 2005), robust mixed method work (Bachkirova, Arthur, & Reading, 2015) or extensive qualitative research (de Haan & Nies, 2015).

The bottom right hand quadrant encompasses research that is coaching-specific but is not highly rigorous. This is not to say that such researchers set out to purposefully produce research of low rigour. Such research may have been negatively impacted by hard-to-access participant samples, major changes in research context (e.g., redundancies or shifts in economic climate) over the course of the research, or any of the all-to-frequent logistical challenges of conducting field research. Such studies could include quantitative coaching-specific research that has a small size or is exploratory in nature (e.g., Sherlock-Storey, Moss, & Timson, 2013). This section could also include

qualitative coaching-specific research that has been poorly designed, or survey research that has been conducted as a means of promoting a business offering or coaching service (Corbett, 2006).

The top left hand quadrant represents well-designed coaching-related research; that is research that closely aligns with coaching, but is not specifically about coaching. Examples here could include empirical studies of the role of self-concordance in goal striving and well-being (Sheldon & Elliot, 1999), review articles on the relationship between goals and performance (Locke, 1996), reports on the impact of positive psychology interventions (Bolier et al., 2013) or explorations of self-regulation (Baumeister, Vohs, & Tice, 2007) amongst others. Included here also could be coaching-related qualitative research exploring (for example) the lived experience of a person undertaking a program of positive thinking (Thatcher, 2014).



**Figure 3: A Two-by-two Framework for Determining the Relevance of Research to Coaching Practice**

The bottom left hand quadrant represents the poorest evidence for coaching. Research in this area could include studies with low statistical power or inappropriate analysis, conceptual incoherency or research with a focus that is only marginally related to coaching. A useful example here is the use of fMRI brain scans and related aspects of neuroscience being put forward as “proof” that coaching works (Rock & Schwartz, 2006). Despite much marketing material trumping the value of neuroscience as a foundation for coaching practice, there are virtually no fMRI studies exploring the direct links between coaching and specific regions of brain activity (for one interesting exception see Jack, Boyatzis, Khawaja, Passarelli, & Leckie, 2013). Although neuroscience studies may shine an informative light on the dynamics of brain

functioning, very little (if any) of this body of research is directly related to observable behavioural change in non-clinical populations – the main goal of coaching. In addition, much neuroscience research has been heavily criticised for low statistical power and inappropriate analysis (Button et al., 2013), thus further limiting the direct contribution of neuroscience to an evidenced-based approach to coaching at this point in time.

Other examples in the bottom right quadrant could include research on body language and non-verbal communication as applied to coaching (Matsumoto, Hwang, & Frank, 2016), the applicability of learning styles to the coaching relationship (Freedman & Stumpf, 1978; Kolb & Kolb, 2013), research on emotional intelligence (Salovey & Mayer, 1989) or research on the influence of birth order on career progression and responsiveness to career coaching interventions (Leong, Hartung, Goh, & Gaylor, 2001). The main point here is that research in this quadrant is typically only indirectly related to coaching or that such research is either poorly conducted and/or has attracted significant controversies.

The above examples in all four quadrants have been presented as illustrative examples only. Coaches and researchers will themselves have to determine how they would personally categorise the different types of research that they draw on in their own coaching practice. Nevertheless, the framework presented here gives a useful tool for refining understanding of the relative relevance of different bodies of research to evidence-based coaching practice.

## **Summary**

As the research related to coaching continues to grow, practitioners and researchers both need ways of categorising the relevance of different bodies of research and their relatedness to an evidence-based approach to coaching. The two-by-two framework presented here may be one way that this can be achieved. As articulated in this article, a more nuanced view of evidence-based practice than is typically found in medical contexts is important, as coaching engagements are not medical interventions that follow prescribed regimes. We need to continue to look beyond the medical model and appreciate that all forms of research have something to contribute to the evidenced-based coaching enterprise. We need to ensure that the contributions of both quantitative and qualitative approaches are valued and utilised. Moreover, researchers and academics must ensure that the voice of the practitioner continues to be heard. The responsibility for the development of “evidenced-based” coaching sits not only with academics or professional researchers –practitioners’ contributions are also a vital part of the conglomeration of ideas, experience and research that coalesce to form evidence-based coaching. In this way, evidence-based approaches to coaching can continue to develop and to make important contributions to the well-being and performance of the individuals and organisations which we serve.

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