

# Coaching Psychology Research: A Journey of Development in Research

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**Abstract** The purpose of this chapter is to explore the developmental journey of coaching research. The paper suggests that coaching research, like other areas, has migrated through a number of phases. It started with case study papers (phase 1) which largely looked at individuals or individual organizations from the perspective of the coach (usually a consultant). The second and third phases (phase 2 and 3) were more qualitative in nature, and included surveys and more sophisticated approaches such as grounded theory. The next phase (phase 4) has been the growth in randomised control trials. These papers have offered stronger evidence about the efficacy of coaching as an intervention. More recently (phase 5) there have been a number of meta-analysis papers published. For each phase, the authors will illustrate their arguments by selecting one or two relevant papers and offering a critical review of the paper, as well as specific phase of the research journey. The paper will conclude with a projected overview of the future of coaching psychology research and practice.

**Keywords** Coaching psychology • Coaching research • Coaching context • Multi-cultural coaching

## 1 Introduction

In this chapter we aim to review the developing journey of coaching psychology research, which has emerged over the past two decades from ad hoc, grass roots research to dynamic, serious academic study.

The chapter explores the theme of coaching psychology research by considering its development through a series of research phases. Our selection of phases reflects

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how we see this journey of development looking back from 2014. We recognize there are other ways the journey could be segmented, and that our view is just one perspective.

To illustrate these phases we have selected a sample paper from each period that we believe illustrates many of the points we are raising about the phase in question. By selecting these papers we are not suggesting they are the worst or the best examples, but rather the example is typical of the research that was being undertaken, referenced and quoted in coaching research papers at the time, including by ourselves. In fact just to balance up the critique of these papers, we have deliberately included one paper written by one of us, to show that our own work is not beyond criticism or improvement.

Our aspiration is that the chapter will provide future students and those studying coaching research with a summarized ‘history’ of the development of coaching psychology, which shows its emergence towards a respected strand of psychological research. Further, we will argue that such a journey of development is typical for most emerging areas of research.

## **2 A Brief Review of Coaching Psychology Research**

As researchers we have both been challenged in the past by practitioners; ‘So why is research important? I know it works and that is enough’. For many practitioners, that is enough. However, when decisions need to be made about the impact of coaching, we would argue as psychologists that companies and individuals need to ensure that they can demonstrate that coaching is both the right intervention to address the perceived problem and secondly that it actually works – i.e. that it will deliver the perceived benefits.

We would argue that research can provide valuable benefits for us as practitioners. Research aims to identify and define the knowledge base upon which practitioners work – what is coaching’s combination of knowledge and skills which differentiate what coaches do from other helping and learning interventions? Such a differentiation is essential for any consideration of coaching.

With the idea of an evolving and developing knowledge base, supplied by appropriate research, there comes the potential of enhancing coaching performance of current coaches. Training and development therefore becomes a process of continuous professional development for coaching practitioners.

Further, with increased demand for coaching, new coaches also need to be trained. Formal training too should be based on evidence from research about what works and how. Those involved in coach training need to understand what works, and why. This knowledge needs to be grounded in research, as well as theory. For example do open questions make a difference in coaching? If so how? Are listening and empathy enough to help provide a space for reflection, learning and change? Or do support and empathy need to be matched by challenge? Does it matter if the coach moves from one approach to another within a coaching session, or is

consistency in approach important in producing effective outcomes? What approaches work best with different presenting issues, for example is Transpersonal coaching the most effective model for career coaching and Cognitive behavioural coaching most effective for coaching on skill development? When should we coach and when should other interventions be used from instruction, or mentoring? These are important questions and we still do not know adequate answers to all of these questions, although the past two decades have given us a much better insight to the process and the experience of coaching.

The past 25 years have seen an explosion of coaching psychology research. This research has gone through a number of phases, as our understanding of coaching continues to grow and the expertise of researchers developed to push the boundaries towards as yet unanswered questions.

Each phase has required different methodologies and instruments. In the first phase the approach was experiential and theoretical. In this phase the focus was on individuals sharing their examples of practice and debating the boundaries of an emerging domain. In the second phase the case study and survey became popular tools for helping to explore the phenomena. Later in phase three and four qualitative studies sought to build our theoretical knowledge, while small scale quantitative studies, often Randomised Controlled Trials (RCT's) provided interesting insights to specific populations. Most recently we believe we have embarked upon a fifth phase where meta studies are providing insights into collections of studies, to provide a more definitive answer to the question, does coaching work?

In the following sections we aim to look at each of these phases with a particular focus on a single paper which illustrates the phase. We will start by considering the first phase, which was dominate during 1990–2005, but has now almost slipped from the literature. Of course prior to this there were a number of early studies of coaching, starting with (Gorby's 1937) paper (Gorby 1937) looking at the impact of coaching in a manufacturing setting. This was quickly followed by a second study in 1938 (Bigelow 1938).

In the 62 years following 1937, to the end of the century, there were a total of 93 articles, PhDs and empirical studies published. The 1937 and 1938 papers were followed by a slow trickle of papers. One research paper was published in the 1940s (Lewis 1947) and this was followed by nine studies in the 1950s, the majority centred in the latter half of the decade. This was followed by three studies in the 1960s and three in the 1970s. It was not until the 1980s that the first signs of growth were seen. Several of these early papers hinted at the potential that coaching may be a separate organisational intervention, or as a complimentary intervention to help in skills transfer after training. An example is Holoviak's study (Holoviak 1982) that examined training programmes in relationship to variations in company productivity levels in the coal industry. The study used a semi-structured interview method and identified that companies which provided greater amounts of management and supervisory training, including coaching, achieved higher productivity. It was not until the 1990s that coaching research papers became a common occurrence in the literature with 41 papers cited by the search engines PsycINFO and Dissertation Abstracts International for this period.

## 2.1 *Phase 1: Boundaries and Theories*

There has been considerable debate about coaching and coaching psychology. Are they the same thing or different things. Some writers have implied that coaching psychology is a different discipline. That is not our view. We hold the view that coaching and coaching psychology are parallel disciplines. The evidence appears to support this view. In a UK based study of non-psychologically trained coaches and coaching psychologists the results indicated that both groups reported employing similar behaviours (Jenkins et al. 2012).

Early in the journey of coaching psychology Grant and Palmer (2002) defined coaching psychology as:

Coaching psychology is for enhancing performance in work and personal life domains with normal, non-clinical populations, underpinned by models of coaching grounded in established therapeutic approaches.

The implication of the definition was that coaching psychology was distinctive from coaching. Further the definition of coaching makes clear that the intervention is one targeted at 'normal' and non-clinical populations. However, more recently coaching is being extended into new areas including smoking cessation and other health related areas. This trend is likely to continue as coaching skills continue to be adopted by clinically trained staff for use in medical settings. Secondly, Grant and Palmer's original definition suggests that coaching psychology must draw on models grounded in therapeutic approaches. This potentially limits coaching and restricts the development of approaches which are grounded in organisational practice or are specifically developed for coaching. In response to these and other points Palmer and Grant updated their definition:

Coaching Psychology is for enhancing well-being and performance in personal life and work domains, underpinned by models of coaching grounded in established adult learning or psychological approaches, (adapted Grant and Palmer 2002).

Rather than focusing on process, one of us (Passmore 2010) have previously offered an alternative definition for coaching psychology:

Coaching psychology is the scientific study of behaviour, cognitive and emotion within coaching practice to deepen our understanding and enhance our practice within coaching.

While there remains some discussion about these issues, the trend in coaching psychology research has moved away from definitions towards areas of practice and impact, specifically the use of case studies and surveys. This shift in the primary focus is itself a reflection of a growing confidence in what the focus of study is. This is the theme for the next section.

## 2.2 Phase 2: Case Studies and Surveys

In phase two the focus was on case studies and survey based research. These studies can be found in the two journals that were actively publishing coaching psychology research during the mid 1990s to around 2009. These were *Consulting Psychology Journal: Practice & Research* and *International Coaching Psychology Review* (from 2006).

During this phase papers were focused on the experience of coaching, either from the perspective of the coach in the form of a case study, or drawing on the experiences of coaches through surveys. One example of the survey-based approach that looked at both the views of coaches and coachees was Hall et al. (1999). This paper sought to identify the key behaviours which participants perceived to make a material difference in the process. What is most interesting about this paper is that looking back the study identified most of the key behaviours subsequently referred to in research papers focusing on coach behaviours over the coming two decades. While the method may be challenged as being basic, the outcome provided a useful platform for future multiple studies on coach behaviour that followed. Tables 1 and 2 below provide a summary of the Hall et al. (1999) study.

The second popular methodology used during this phase was the case study. This type of paper offered the coach (mostly psychologists) perspective on their work and on the coaching process. In this sense the approach is limited by the impact of attribution bias in reporting our own work.

A commonly cited example is Winum’s paper (Winum 2005). The paper offers a case study of coaching a black American coachee. The first three quarters of the paper is presented in a story format, rather than as a classic academic paper or even as a business case study. There is little critical reflection, and little insights as to the coaches personal learning from the process. In some senses this style of paper can

**Table 1** What works best in coaching (Adapted from Hall et al. 1999)

Coaches	Coachees
Honest, realistic, challenging feedback (positive and negative)	Connecting personally, recognizing where client is
Good listening, sounding board	Good listening, being a sounding board
Good action ideas, pointers	Reflecting
Clear objective	Caring
No personal agenda	Learning, demonstrating trial and error attitude
Accessibility, availability	Checking back, following up
Straight feedback	Committing to client success and good organizational outcome
Competence, sophistication	
Seeing a good model of effectiveness	Demonstrating integrity, honesty
Coach has seen other career paths	Openness, initiative of client coaching
	Having good coach/client fit
	Knowing the “unwritten rules”
	“Pushing” the client when necessary

**Table 2** What works least well in coaching

Coaches	Coachees
Nothing	Being judgmental
When recommendations are self-serving for the coach	Poor timing or impatience regarding executive's readiness
When feedback is all negative	Finding the right degree of bluntness and honesty for the individual
Feedback only, no action ideas	
When feedback deals with others' feelings, not results	
Invasion of privacy	
When recommended actions seem naive or unrealistic	

be viewed as soft marketing, presenting a rosy perspective of the work undertaken by the individual or by the consulting company concerned. Too frequently the unspoken implication is '*see what we did, we can do this for you*', as opposed to '*see what we did, if you learned from our mistakes you could do this even better yourself*'.

In the Winum paper, the final quarter of the paper, the paper partly redeems itself by offering a hand full of insights into the coaching process. These include the importance of challenge and candid feedback for the coachee and organizational clients, the role of contracting with all of the stakeholders, including coachee, organizational client and peers who have a view about the outcome, and the role of organizational culture in supporting the coaching process.

This is not to say that case study papers cannot make a significant contribution to the literature, examples such as Freedman and Perry's (2010), case study from one to one coaching with a client from the nuclear industry offers fresh insights into both the coaching process and the coach. Although this paper, suffers the same core limitation of not being able to move from the specific to the general – for the reader to generalise, with any reliability, to their own work.

### 2.3 Phase 3: Qualitative

The third phase which we have described as qualitative, emerges around 2005 and continues to be a feature within the literature. In this phase researchers drew on qualitative research methodologies, such as Grounded Theory (Bryant and Charmaz 2007; Glaser and Strauss 1967), Interpretative Phenomenological Analysis, Thematic Analysis (Smith and Osborn 2003; Smith et al. 2009). This would also include Discourse Analysis, an as yet unused coaching research methodology, but in our view one which offers a rich vein to explore, particularly with respect to the role of power within the coach-coachee and the coach-organizational client dyads.

**Table 3** Ethical principles in decision making (Adapted from Duff and Passmore 2010)

Personal ethics
Moral values
Duty to society
Standards of practice
Relevant laws for the region in which they worked
Conversations with others such as supervisors
Experience, respected others “views”
Implicit and explicit contract with clients along with boundaries
Implications involved with a situation

Such methodologies are useful in building theory and also diving deeper to understand the personal and less tangible aspects of coaching as a phenomenon of human relationships and interpersonal processes. One example of a paper in this area is Duff and Passmore (2010).

In this paper Duff and Passmore, apply the Grounded Theory approach to understand coaching decision making with a view to building an ethical decision making model. The study used a semi-structured interview design, complemented by a focus group of experienced coaches. The study identified key elements used by coaching psychologists in making decisions which include ethical principles such as those presented in professional codes and relevant literature (see Table 3).

These elements were used to build firstly descriptive and later conceptual codes and from these a decision-making framework was developed and tested on coaching psychologists.

The outcome of the research was an ethical decision making model which the authors claimed offered a sequential but non-linear model to guide the subsequent decision making of practitioners.

Such models offer the opportunity for further testing, for example by assessing their value to practice through the use of RCT’s, comparing the model with a placebo approach to decision making or practitioners who don’t use a model in their decision making.

Thus, qualitative research methods can provide valuable insights into the potential benefits of coaching, as well as the processes underlying effective coaching (Grant 2012). Indeed, it has been argued that qualitative research methods are especially suited for studying individualized interventions such as coaching. First, coaching is a client-directed intervention (Grant 2003): each coachee has his or her own unique problems and/or goals. Thus, the standardization in both the coaching intervention and the targeted outcomes needed for quantitative studies is often problematic. Second, (most) coaching is based on socratic dialogue and is therefore non-linear and unpredictable in nature. In this sense, qualitative research methods are possibly most suited for capturing the organic nature and the richness of individuals’ lived experience (Grant 2012).

However, while qualitative approaches may be insightful about the participants in such studies, they lack the ability to generalize the results from one sample to the wider population or to offer definitive answers to questions, such as ‘does coaching

work' or what behaviours used by coaches create the biggest outcomes. In this sense we argue that qualitative studies need to go hand in hand with quantitative studies in mixed methods research. Specifically, the numerical data provided by quantitative studies allows for comparisons with related developmental interactions such as mentoring and training (D'Abate et al. 2003) and could thus provide a reference point for the human resource development decisions and strategies for both organizations and individual clients. To conclude, both qualitative and quantitative methodologies have answers to give, but only by bringing different methodologies together can maximum insight be gained by the process in question.

#### ***2.4 Phase 4: Quantitative – RCT Studies***

The area of quantitative research too has grown over a similar period, from early 2000s and remains a popular topic of coaching psychology research. In this category we consider RCT's to be the gold standard of research methodology, although quasi-experimental design and similar methodologies have also been used. RCT's provide a unique opportunity to control for confounding influences that cannot be addressed by other research designs (Cook and Campbell 1979). Especially relevant for coaching, RCT designs allow us to control for selection effects (e.g. coachees that participate in a study are strongly motivated for change), placebo effects and natural maturation (change that cannot be ascribed to the intervention). Research on related interventions such as psychotherapy consistently shows that these factors play a significant role in determining the effectiveness of interventions, and even are stronger predictors of effectiveness than the specific type of intervention used in the study (McKenna and Davis 2009; Messer and Wampold 2002).

The exact number of RCT's in coaching is hard to measure because it depends how the literature search categories are defined (see Theeboom et al. 2014). Anthony Grant, who actively maintains a bibliography of coaching research, has suggested, there are less than 50 such papers. However, a larger net, collecting papers from health and education, as well, business and psychology, is likely to see the number of RCT's rise beyond 100. This reflects the spread of coaching into health and education and the popularity of RCT as a method for use in such domains. These numbers are still relatively low when compared to studies in related areas such as therapy and mentoring. As Grant notes "*For some observers the small number of randomised controlled outcome studies may be considered to be the major shortcoming in the literature on coaching efficacy*" (Grant 2012). Table 4 below (adapted from Grant 2012) provides an overview of the current RCT studies to the knowledge of the current authors.

In the light of the relatively small number of studies, it is encouraging to observe that the amount of RCT studies has increased substantially in the period 2001–2011 (Grant 2012; Grant et al. 2010). Anthony Grant has been one of the most active contributors to the research in this area and has published a number of the RCT studies. One exemplary study that combines a RCT design with qualitative research



**Table 4** Randomized control trail and experimental design coaching research

Study	Intervention overview	Type of study	Key findings
Gyllensten and Palmer (2005)	31 participants from UK finance organization	Quasi-experimental field study (a) coaching group; (b) control group	Anxiety and stress decreased more in the coaching group compared to control group
Evers et al. (2006)	60 managers of the federal government	Quasi-experimental field study (a) coaching group; (b) control group	Coaching increased outcome expectancies' and self-efficacy
Green et al. (2006)	56 adults (community sample) took part in SF-CB life coaching program	Randomised controlled study (a) group-based life coaching; (b) waitlist control	Coaching increased goal attainment, well-being, and hope. 30-week follow-up found gains were maintained
Green et al. (2007)	56 female high school students took part in SF-CB life coaching program for 10 individual coaching sessions over 2 school terms	Randomised controlled study (a) coaching group; (b) waitlist control group	Coaching increased cognitive hardiness, mental health and hope
Spence and Grant (2007)	63 adults (community sample) took part in SF-CB life coaching program	Randomised controlled study (a) professional coaching group; (b) peer coaching group; (c) waitlist control group	Professional coaching more effective in increasing goal commitment, goal attainment and environmental mastery
Duijts et al. (2008)	Dutch employees assessed for the effectiveness of a preventive coaching program on sickness absence due to psychosocial health complaints and on wellbeing outcomes	Randomised controlled study (a) 6 month course of preventive coaching; (b) control group	Significant improvements in health, life satisfaction, burnout, psychological wellbeing but no improvement in self-reported sickness absence
Spence et al. (2008)	45 adults (community sample) took part in mindfulness-based health coaching over 8 weeks	(a) Randomised controlled study: SF-CB coaching followed by mindfulness training (MT); (b) mindfulness training followed by SF-CB coaching; (c) health education only control group	Goal attainment greater in coaching than in the educative/directive format. No significant differences were found for goal attainment between the two MT/ CB-SF conditions

(continued)

**Table 4** (continued)

Study	Intervention overview	Type of study	Key findings
Fielden et al. (2009)	Nurses from six UK Health Care Trusts were allocated to a coaching group ( $n = 15$ ) or a mentoring group ( $n = 15$ )	Quasi-experimental field study (a) coaching group; (b) mentoring group in 6-month coaching/mentoring programme. Qualitative and quantitative data at (T1 = baseline, T2 = 4 months and T3 = 9 months)	Mentoring was perceived to be 'support' and coaching was 'action', both reported significant development in career development, leadership skills and capabilities, mentees reported the highest level of development with significantly higher scores in eight areas of leadership and management and in three areas of career impact
Franklin and Doran (2009)	First-year students: co-coaching with preparation, action, adaptive learning coaching or self-regulation coaching PAAL ( $N = 27$ ) or self-regulation ( $N = 25$ )	A double-blind random control trial in which participants were randomly allocated to either a preparation, action, adaptive learning (PAAL), or a self-regulation co-coaching	Both co-coaching conditions produced significant increases in self-efficacy and resilience, however, only those in the PAAL condition performed significantly better on decisional balance, hope, self-compassion, the incremental theory of change, and independently assessed academic performance
Grant et al. (2009)	41 executives in a public health agency received 360-degree feedback and four SF-CB coaching sessions over 10 week period	Randomised controlled study (a) coaching group; (b) waitlist control group	Coaching enhanced goal attainment, resilience and workplace well-being and reduced depression and stress and helped participants deal with organisational change

(continued)

**Table 4** (continued)

Study	Intervention overview	Type of study	Key findings
Aust et al. (2010)	Seven intervention units ( $n = 128$ ) and seven non-randomized reference units ( $n = 103$ ) of a large hospital in Denmark participated in an intervention project with the goal of improving the psychosocial working conditions	Quasi-experimental field study (a) coaching group; (b) control group	In the intervention units there was a statistically significant worsening in six out of 13 work environment scales. The decrease was most pronounced for aspects of interpersonal relations and leadership. In comparison, the reference group showed statistically significant changes in only two scales. Process evaluation revealed that a large part of the implementation failed and that different implicit theories were at play
Cerni et al. (2010)	14 secondary school principals: all school staff in the 14 schools were invited to rate their school principal using the MLQ (5X) questionnaire	Pre-test, post-test control-group research design (a) coaching group; (b) control group	This study provides initial evidence that by creating changes to rational and constructive thinking, it is possible to increase coachee's use of transformational leadership techniques
Grant et al. (2010)	44 high school teachers were randomly assigned to either SF-CB coaching or a waitlist control group	This study was both an experimental (randomly assigned) and a WS (pre-post) study	Participation in coaching was associated with increased goal attainment, reduced stress, and enhanced workplace well-being and resilience. Pre-post analyses for the coaching group indicated that coaching enhanced self-reported achievement and humanistic-encouraging components of constructive leadership styles

(continued)

**Table 4** (continued)

Study	Intervention overview	Type of study	Key findings
Kauffeld and Lehmann-Willenbrock (2010)	Spaced and massed training are compared using behavioural and outcome criteria. 64 bank employees ( $n=32$ in each training group)	Quasi-experimental follow-up research design with a sample of 64 bank employees ( $n=32$ in each training group) is used	Spaced rather than massed training practice resulted in greater transfer quality, higher self-reports of sales competence, and improved key figures. Spaced training did not surpass massed training in terms of transfer quantity
Kines et al. (2010)	Foremen in two intervention groups are coached and given bi-weekly feedback about their daily verbal safety communications with their workers	A pre-post intervention-control design with five construction work gangs: Foremen-worker verbal safety exchanges (experience sampling method, $n=1693$ interviews), construction site safety level (correct vs. incorrect, $n=22,077$ single observations), and safety climate (seven dimensions, $n=105$ questionnaires) a measured over 42 weeks	Coaching construction site foremen to include safety in their daily verbal exchanges with workers has a significantly positive and lasting effect on the level of safety, which is a proximal estimate for work-related accidents
Kochanowski et al. (2010)	Experimental group of managers received individual coaching several weeks after attending a feedback workshop. The control group of managers also attended a feedback workshop but did not receive the follow-up coaching	Quasi-experimental field study (a) feedback plus coaching group; (b) feedback only control group	Coaching significantly increased the use of collaboration with subordinates, but results for the other three "core" tactics were mixed
Leonard-Cross (2010)	Investigated the impact and process of developmental coaching evaluating coaching which took place over a 2-year period	The study used action research (Lewin 1946) and a quasi-experimental method. Coachees and the comparative group of non-coached staff completed questionnaires	Participants that had received developmental coaching ( $N=61$ ) had higher levels of self-efficacy than the control group of participants ( $N=57$ ) who had not received coaching

(continued)

**Table 4** (continued)

Study	Intervention overview	Type of study	Key findings
Passmore and Rehman (2012)	The study investigated the efficacy of learning methodologies, comparing a blended coaching and instruction approach with an instruction approach	Randomized control trial, involving 208 participants drawn for the armed services	Participants in instruction and coaching group (104 participants) had reduced learning period and higher level of pass rate than the instruction group (104 participants)
Passmore and Velez (2012)	The study investigated driver behaviour in HGV drivers, comparing blended coaching and instruction with an instruction method for a 1 h refresher course for 327 HGV drivers	Randomized control trial involving 327 participants and 12 coaches and 12 instructors	<p>Participants in the two groups reported similar speed convictions and similar occurrence of accidents</p> <p>Results may be due to limited 1 h of coaching or instruction, neither of which led to a behavioural change in long-term driver behaviour over the forthcoming 12 month period</p>

methods is a study by Grant et al. (2009). In their study, 41 executives in an Australian public health agency were randomly allocated to either a coaching condition (half-day workshop plus four individual solution-focused coaching sessions over 10 weeks) or a wait-list control condition (half-day workshop only). The quantitative data showed that coaching enhanced goal-attainment, resilience and well-being and decreased stress and depression as compared to the control condition. The qualitative data indicated that coaching also fostered self-confidence, personal insight and helped the managers to develop their managerial skills. In our view, studies such as these reflect the ongoing development of coaching as a field over the past decades and contribute substantially to the evidence-base of coaching.

All in all, the amount of rigorous and methodologically sophisticated quantitative studies seems to be on the rise. This is good news for scholars and practitioners alike. In order to establish coaching as evidence-based practice and respected academic field, we need to recognize and embrace the diversity of research methodologies (as well as practice-based insights) that can capture the equally diverse ways in which coaching is applied as a change methodology. At the same time, this rise of RCT studies also poses new challenges. In this sense, the use of RCT's in coaching reflects the common challenges of applying interventions in non-health based and specifically in organizational settings.

Firstly, most of the coaching papers published draw on small sample sizes, often 30, but usually less than 50 in each condition. Secondly, the most common samples consist of students based in educational settings. These two aspects reflect that accessing students and working with small, contained groups, is substantially easier than working with samples of 100 or more in organizational settings. Thirdly, given the samples, the focus of the RCT studies has often been towards exploring psychological dimensions such as goal setting, hope or resilience, in contrast with leadership dimensions or personal work based performance. Once again such dimensions are more challenging to collect and to maintain a group where meaningful comparison over time can be achieved.

Last but not least, we hope that future research will be theoretically enriched. Coaching is frequently defined as a change methodology ultimately aimed at enhanced well-being and functioning (Grant 2003). By incorporating seminal psychological theories on for example individual change (e.g. self-regulation and adult learning) and its' ultimate aims of well-being and functioning (e.g. Self-Determination Theory; Deci and Ryan 1985) we can gain insight into the question how coaching works rather than if coaching works (Latham 2007; Spence and Oaedes 2011). These insights could be used to develop both existing and new coaching interventions as well as the development of the cumulative knowledge framework needed to advance coaching psychology as a field of practice and an academic discipline.

## ***2.5 Phase 5: Meta Research***

As mentioned above, the literature on coaching has grown substantially over the past two decades. This growth has mainly been driven by (scientist-) practitioner. Most of this research focuses either on a specific type of intervention (e.g. cognitive-behavioural solution-focused coaching) or outcome (e.g. burn-out) that is of interest to the researcher and/or sponsors of the research such as the companies hiring scientist-practitioners. As a result, the current literature is somewhat fragmented and this has resulted in a mixture of scepticism and confusion with regard to coaching psychology as a domain of practice and research (Theeboom et al. 2014).

In response to this increasing scepticism and confusion, several excellent qualitative literature reviews have been published over the years (e.g. Brock 2008; Grant et al. 2010; Feldman and Lankau 2005; Kampa-Kokesch and Anderson 2001). In addition to these qualitative reviews, recent meta-analytic reviews form a welcome addition to the literature for two interrelated reasons. First, meta-analyses use statistical methods rather than narrative reviews in order to synthesize data from multiple individual studies. In this sense, meta-analyses can provide a more objective review of the literature (Wilkinson 1999). Second, meta-analytic reviews can provide insight into the between study variability and the generalizability of results (Borenstein et al. 2009). In this way, meta-analyses can shed light on potential theoretical (e.g. number of sessions) and methodological (e.g. study design) moderators

of coaching effectiveness. Identifying these moderating factors can have strong implications for future research on coaching. At the time of writing, four meta-analytic studies have been published and will be discussed below (De Meuse et al. 2009; Theeboom et al. 2014; Jones et al. 2015; Sonesh et al. 2015).

In the first meta-analysis in the field of coaching, De Meuse et al. (2009) used meta-analytic techniques to estimate the effects of executive coaching interventions. They identified six studies that met their four criteria for inclusion: (1) coaching was targeted at executives (2) coaching was provided by external coaches (3) the methodological design included pre and post coaching ratings and (4) the statistical information provided was sufficient for estimating effect sizes. As an outcome variable, they took an average of all outcome variables included in the studies under analysis. Furthermore, they distinguished between self-ratings by the coachee, and ratings by others (managers and/or peers).

According to the standards of Cohen (1988), effect sizes less than 0.30 can be considered to be small, an effect size between 0.31 and 0.50 would be moderate and effect sizes above 0.50 would be considered large. The results of their analysis showed that coaching can have moderate to large positive effects depending on who was responsible for the ratings. The estimated population effect sizes were much larger when the outcome was rated by the coachee (1.27) rather than by others (0.50). This was in line with the results of a study by Peterson (1993) that showed that relative to the estimates of others (e.g. supervisors), coachees tend to overestimate the effectiveness of coaching interventions. Furthermore, the results showed that the effectiveness of coaching was highly inconsistent. In other words, there were major between-study differences in effect sizes. In addition to the small number of studies, the authors identified several factors that might have contributed to this inconsistency: differences in outcome criteria, characteristics of the coaching intervention (e.g. type of coaching) and methodological rigor of the studies.

These factors were explicitly addressed in a recently published meta-analysis by the second author of this chapter and his colleagues (Theeboom et al. 2014). The team used similar inclusion-criteria for our meta-analysis as De Meuse et al. (2009) with two notable differences. First, the team focused on all studies investigating the effects of coaching interventions in organizational settings (thus not only coaching targeted at executives). Second, the team only included studies in which the influence of other interventions (e.g. when coaching was part of a broader leadership development program) could be ruled out. This resulted in a total of 18 studies included in the final analysis.

Regarding the differences in outcome criteria encountered by De Meuse et al. (2009), the team used both a bottom-up (looking at available data) and top-down (looking at well-known outcomes in the broader psychological literature) approach to categorize the various outcomes into five clusters: performance and skills (e.g. transformational leadership behaviour), well-being (e.g. mental health), coping (e.g. problem vs. emotion focused coping), work attitudes (e.g. job satisfaction) and goal-directed self-regulation (e.g. goal attainment). The results showed that coaching had positive effects on all of these categories (see Table 5). In line with the

**Table 5** Summary of effect sizes

Outcome category	Effect size
Performance/skills	0.60
Wellbeing	0.46
Coping	0.43
Self-regulation	0.74
Work attitudes	0.54

results of De Meuse et al. (2009) however, the team also found that effect sizes differed considerably between studies – even when comparable outcome measures were clustered into the five categories mentioned above.

In order to check whether the between study variance could be attributed to factors related to either characteristics of the coaching intervention and/or the methodological design of the studies included in the analyses, we performed two different meta-regressions. Regarding the characteristics of the coaching intervention, the team tested whether the number of coaching sessions had an influence on coaching effectiveness. Somewhat surprisingly, the team did not find an effect. In other words, the number of coaching sessions seemed to be unrelated to the effects of coaching interventions on the coachees. Two possible explanations were proposed by the authors. First, it could be that in the studies included in the analyses, the number of sessions was related to the severity of the problems that the coachees were coached for. If this were the case, more severe problems would require more sessions to attain a similar effect (rather than having a larger effect). A second possibility is that the lack of differences between studies with more or less coaching sessions was due to the nature of the type of intervention in the majority of studies. Most of the coaching interventions were solution-focused in nature and solution-focused coaching (derived from solution focused brief therapy) is well known for its quick results and its ability to ‘jump to the heart of things’ (Kim 2008). From this perspective, the fact that there was no difference in effectiveness between studies using more or less sessions may simply reflect a psychological equivalent to economics law of diminishing returns (Theeboom et al. 2014).

The team performed a meta-regression in order to check whether the methodological design of studies impacted the effectiveness of in the studies included in the analysis. Specifically, the team checked whether there were differences in effect sizes for studies incorporating a control group (mixed within between subject designs) and thus controlled for additional sources of bias (see above) as opposed to studies lacking a control group (within-subject designs). The Theeboom team found that effect sizes in the latter were significantly larger, hinting at the idea that confounding factors such as natural maturation of coachees and placebo effects should be a concern in future studies addressing the effectiveness of coaching interventions.

The Jones et al. (2015) study has provided a number of interesting insights, both supporting and challenging the findings from the other two studies. Jones and her team found that coaching had a positive effect on affective, skill-based and individual level outcomes. Secondly, contrary to their prediction, Jones et al. (2015) did



not find significant discrepancies in effect sizes between the different types of research design analysed. This result conflicts with the result from Theeboom et al. (2014), and raises the question why is there a difference, and more importantly, which is correct? Thirdly, the study found that the period of coaching had no influence on coaching effectiveness. This appears to be counter-intuitive, as one would expect to find a gradual increase in the impact of coaching over several sessions, before the effect plateaued.

In sum, the three meta-analytic studies reviewed in this chapter show that coaching can be an effective change-methodology, but that additional (methodologically rigorous) research is needed to build an evidence-base for coaching and to explore some of the new questions raised by these studies. Furthermore, the meta-analysis by Theeboom et al. (2014) indicated that the coaching literature and (meta-analytic) estimates of overall effectiveness might be susceptible to publication bias: an over representation of studies displaying significant positive results in the literature. Although the problem of publication bias is by no means limited to the field of coaching research, it is worth mentioning explicitly since the estimated \$2 billion yearly global revenue on coaching (International Coach Federation 2012) seems a potent precursor for wishful thinking regarding its effectiveness. To conclude, the meta-analytic research up to date seems provide a fruitful starting point for future research.

### 3 Conclusion

This chapter has briefly reviewed the journey of coaching psychology research. We have argued that coaching psychology research has transitioned from small scale and highly personal to larger studies and meta-analysis. This journey echoes coaching psychology's own journey from an emergent discipline within psychology to a discipline which is growing in maturity and an evidence basis.

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