

Reflections from the Field

The Chronological Development of Coaching and Mentoring: Side by Side Disciplines

Ruud Koopman [✉](#) (University of Twente and Saxion University, Netherlands)

Paula Danskin Englis (BerryCollege, University of Groningen, Netherlands)

Michel L. Ehgrenhard (University of Twente, Netherlands)

Aard Groen (University of Groningen, Netherlands)

Abstract

Interest in coaching and mentoring has increased over the past decades. However, confusion about what is meant in practice and in the literature and the lack of sound definitions makes it hard to research the antecedents and outcomes of both concepts. We show that coaching and mentoring share a lot, but they are often treated as separate fields. By developing models that combine the concepts of coaching and mentoring, we aim to provide a base for more rigorous research. Such a base hopefully encourages researchers and practitioners of coaching and mentoring to work together instead of struggling against each other.

Keywords

coaching, mentoring, soft skills, business, support,

Article history

Accepted for publication: 14 February 2021

Published online: 01 February 2021



© the Author(s)

Published by Oxford Brookes University

Introduction

According to the popular press, the vast majority of managers, entrepreneurs and employees use coaching, mentoring, or a variant of these support methods, to be more effective in their work (Stambaugh & Mitchell, 2018). Although such support is not new, popular and academic interest grew substantially in the past decades. It seems that almost every manager who wants to succeed needs a soundboard, motivator, counsellor, mentor or coach for their development. But managers themselves also are encouraged to coach their employees (McCarthy & Ahrens, 2011). In the last 20 years coaching and mentoring have become a large industry. One estimate mentions 53.300 coaches active worldwide (PricewaterhouseCoopers, 2016), while the Youth Business International has 14.000 volunteer mentors in 52 countries (Youth Business International, 2018). Although not all are making a living of coaching or mentoring, the relevance of coaching and mentoring for business is clear. To survive as a manager (or employee) in a rapidly changing environment (Arthur &

Rousseau, 1996; Simon, 1965) and to climb the hierarchical ladder (Bowerman & Collins, 1999; Murray, 2001), coaching or mentoring can provide an important contribution. There is evidence that mentoring increases the chance of becoming a leader of a company (Janssen, 2015; Stogdill, 1948) but having a personal coach or mentor is also a sort of status symbol.

Since its first use, the meaning of the words coaching and mentoring changed. First Thackeray (1849) describes a coach as a tutor. Coaching has been defined as: "The process of on-going, on-the-job training carried out regularly by a person with the intent of developing another person's skills" (Ritter, 1994, p. 7). A more recent description is, to facilitating of the learning process (Feldman, 2005). These changing definitions show that coaching has shifted from instructing to more facilitating development. For mentoring, Homer (2000) describes mentor as a guard, advisor and friend. Kram (1983, p. 608) says that, "The mentor provides a variety of functions that support, guide, and counsel the young adult as this important work is accomplished." Later on St-Jean, Radu-Lefebvre, and Mathieu (2018, p. 2) describe the "goal of mentoring programs is to strengthen the mentees' self-efficacy." This shows that mentoring is widened from focus on skills development to include also personal development by a more experienced person. Both disciplines struggle with a lack of clear understanding of their professions (Haggard, Dougherty, Turban & Wilbanks, 2010; Hamlin, Ellinger & Beattie, 2009) but they also struggle with each other, or as Clutterbuck (2008, p. 9) says;

At the same time as we begin to clarify what makes for effective coaching and mentoring, however, the very popularity of the approach has resulted in greater confusion. Almost every related profession has participated in a land-grab, trying to stake out its own coaching territory, with definitions, rules and practices based on its own particular perspectives and interests.

Aims and methodology

Since the beginning of this century, research about coaching and mentoring has increased (Grant, 2011; McKinstry, Ding, & Livingstone, 2014; Schmitz et al., 2017). Some publications focus on the history of coaching (Brock, 2008, 2009; Stec, 2012) and on the history of mentoring (Alayoğlu, 2012; Colley, 2002; Roberts, 1999). While coaching and mentoring are both engaged in personal development or learning, the histories of coaching and mentoring are juxtaposed in this paper.

The aim of this study is to analyse the directions in which the research in mentoring and coaching has evolved, to give a better understanding of interaction of these and understand the current state. From that point this paper looks ahead to what the research lays ahead in the future. To this aim, a comprehensive review of literature has been undertaken to analyse: 1) journals, books and theses on history of coaching and mentoring; 2) organisations for coaching and mentoring about their contribution; and 3) conference contributions to coaching and mentoring. Following the work of Grant and Cavanagh (Grant, 2011; Grant & Cavanagh, 2004, 2007), and extending it with mentoring and coaching and mentoring, an electronic search was done in the PsycINFO database to identify all peer-reviewed papers and dissertations on mentoring and coaching in a business setting, specifically excluding papers on sports coaching, therapeutic coaching, educational coaching and coaching for psychometric of educational tests.

In our research the major steps and developments in mentoring and coaching are put into a historical perspective to show the parallels and differences in development. There are many more concepts that could fit to this paper like consulting, leadership, adult learning and so (Brock, 2010). However, these concepts are not explicitly mentioned since coaching and mentoring are most commonly connected. For this paper we focus on the concepts of coaching and mentoring in business settings.

Until 1900

There are stories which claim that the origin of personal support is from ancient Africa, where the Swahili “Habari gani menta” means “the person who asks: “What is happening?” or the prehistoric cave paintings in the Pyrenees where ‘men’ take children on a “tour” (Peer Resources, 2004).

However, most of the literature about mentoring agrees that the term Mentor is first mentioned in Homer’s *Odyssey* (Abiddin, 2006; Coll & Raghavan, 2011; Deans & Oakley, 2006; Lentin & Geol, 2003; St-Jean & Audet, 2012). The goddess Pallas Athena, disguised as Mentor, was the steward of the household of Odysseus with his son Telemachus, when Odysseus had to leave for the Trojan war (Homer, 2007). Most of the mentoring roles, as guide, protector and enabler were fulfilled by Athena herself. Disguised as Mentor she only fulfils a small role in *The Odyssey* (Roberts, 1999). Roberts (1998) argues that the combination of Athena and Mentor represents the focus on the (instrumental) male role of the mentor (Mentor) like counselling or guiding, on the one hand, and the (emotional) female role (Athena) affective or emotional quality on the other hand. The combination of male and female roles is known as psychological androgyny.

In ancient Greek history, several philosophers, including Aristotle and Plato followed the ‘Socratic Method’ of asking questions instead of presenting an argument (Garvey, Stokes, & Megginson, 2009; *The 1911 Classic Encyclopedia*, 1911). Socrates is regarded as one of the first coaches although the name ‘coach’ emerged much later (De Haan, 2007; Garvey, 2012b; Kennedy, 2009). Aristotle was one of the first to develop a philosophy of learning by distinguishing three aspects: 1) the theoretical (the seeking of the truth through thought, observation, consideration and achievement of knowledge for its own sake), 2) the practical (as associated with political and ethical life), and the 3) productive (making something) (Garvey et al., 2009).

Another phenomenon, the master-disciple or craftsman-apprentice relationship, had been used roughly from the 12th century to the 19th century (Malamud, 1996). The guru-disciple tradition from Hinduism and Buddhism (Raina, 2002) are also often considered as a mentoring relationship (Colley, 2002; Crompton, 2012; Slawek, 2000). These are situations where the more experienced master helps to develop the disciple in a subject of common interest (Wach, 1962). This approach is still being used in some situations for educational purposes.

During the Renaissance, aristocrats and scientific communities used mentoring practices to educate promising young people (Wickman & Sjodin, 1997). Fénelon (1699) wrote a follow up of Homer’s *The Odyssey* named *Les Aventures de Telemaque*. Roberts (1999) shows that many examples of the wisdom, support nurturing and guidance can be found in Fénelon’s mentor, in opposite of Homer’s mentor where the character of mentor only fulfils a supporting role and shows up three times (De Haan, 2007). This likely explains why the word ‘mentor’ became synonymous with wisdom, guidance, counselling and advising. In that time there were also several other publications about mentoring; “*Le Veritable le Mentor ou l’education de la noblesse*” (de Caracciolo, 1759), translated in English in 1760 into “*The true mentor, or, an essay on the education of young people in fashion*” (Caracciolo, 1760) and “*The Female Mentor*” in three volumes by Honoria (1793 - 1796). These publications linked “mentoring with cognitive development, emotional development, leadership and social integration, all of these rooted in a experiential learning philosophy.” (Garvey, 2012b, p. 10).

In “*The History of Pendennis*” by Thackeray (1849), the term coaching is used for the first time in combination with personal support. In this story some students are traveling in a coach while receiving tutor support. These students are making the same comparison as the hornpipe which can be an instrument and a dance. The students use the same word for the vehicle, originally from the place Kocs in Hungary (De Haan & Burger, 2007; Wilson, 2004), and for being tutored, while traveling in that vehicle. By the end of the 19th century, coaching was used to support sportsmen such as in football with the establishment of paid coaching (Dixon, Garnham, & Jackson, 2004) and in rowing where a cyclist shouted advice to the rowers on the river. Coaching sportsmen was seen

by several people as an unsporting way of support because the sportsmen got support from others (Garvey, 2012b).

The terms mentor and coach find their origin in this time span. The phenomena of coaching and mentoring, meaning to support people, both existed but while mentoring was connected to knowledge, coaching was mostly connected to physical aspects.

1900-1970s

In the beginning of the 20th century, technology developed rapidly and also knowledge about the organization of technology developed rapidly. This resulted in organizing the support (coaching/mentoring) of technical organizations such as Arthur Dehon Little (MIT) or Jackson's of Symington in Scotland (Glanville & Bonthuys, 2012; McKinstry et al., 2014).

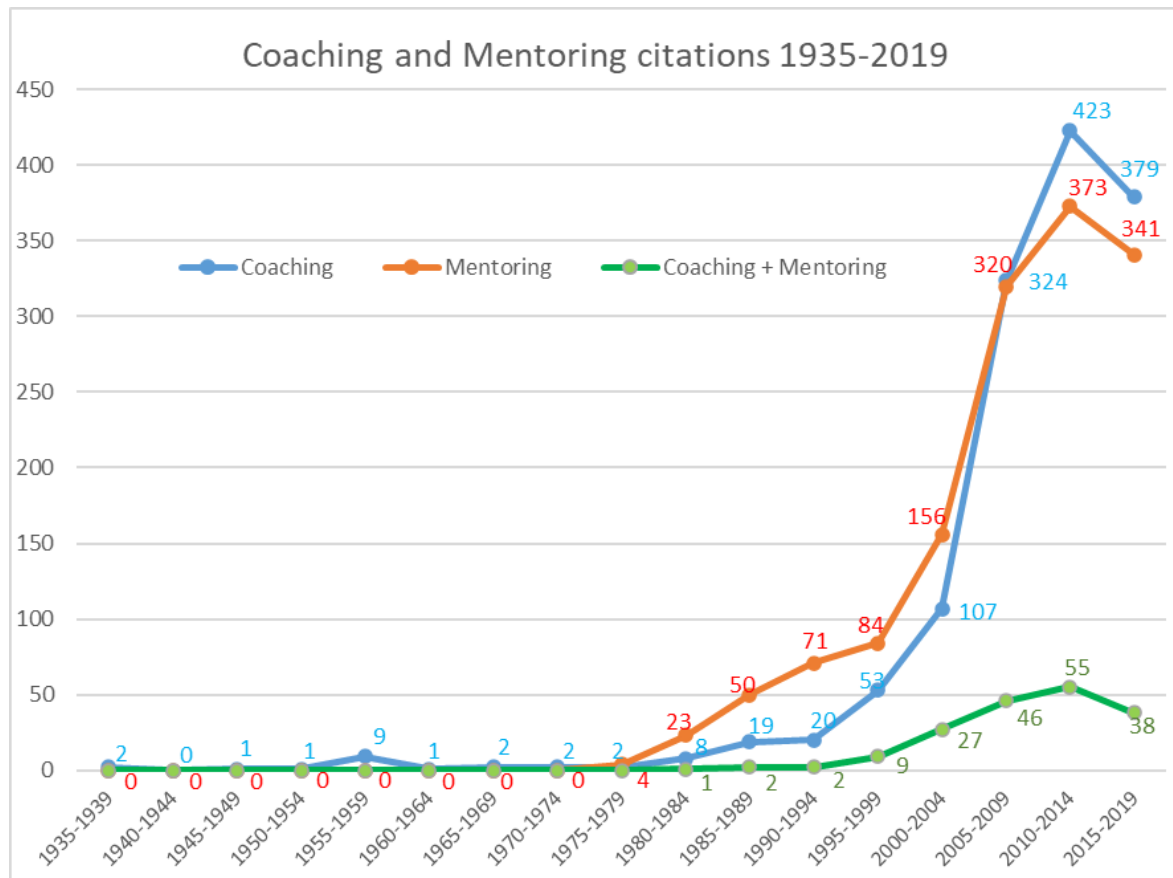
In the 1920s Klages (1926) and Baumgarten (1933) saw the possibilities of the work of Galton (1884) who found about 1000 words that expressed the human character. They took a more systematic study of the "inner states" for a better description of personality as a start for understanding personal support (John, Angleitner, & Ostendorf, 1988). Also the personality and character of successful leaders were researched resulting in the "Great Man" theory of Carlyle (Carneiro, 1981). The interest in individual characteristics of leaders was originally the field of psychology, but was soon followed by the nascent leadership field (Chemers, 2000). At that same time Griffith (1926) seen as the 'father' of sport psychology wrote his book about psychology of coaching.

Freud was one of the first to explain the human mind exhaustively and developed a theory about the human behaviour (Freud, 1923, 2010; Spratt, 1929). This theory also made development possible in coaching and mentoring (Vansickel-Peterson, 2010).

In 1937, the first peer reviewed paper about coaching was published in *Factory, Management & Maintenance* (Gorby, 1937). Terms like HPM (Human Potential Movement) counselling, therapy, and organizational psychology were used to describe the facilitating of personal growth (Brock, 2012; Spence, 2007).

The number of peer-reviewed articles about coaching is very limited in this period (see Figure 1). We did an electronic search in the PscyINFO database using the same method as Grant (2011); Grant and Cavanagh (2004, 2007) including life coaching, workplace coaching and executive coaching.. We extended the search on mentoring with the same method and criteria and also the combined coaching and mentoring publications.

Figure 1 Number of coaching - and mentoring citations in PsycINFO database 1935-2019



Several organizations started support programs for executives like the Jewel Tea Company that started a mentoring program for every MBA-newcomer (Douglas, 1997; Russell, 1991). Also employees and staff got support that looked like coaching by their manager or supervisor (Brock, 2009).

Until the 1970s, the term coaching most appeared in connection to sports performance (Gaylord, 1967; Law, 2013). The book "The Inner Game of Tennis" of Timothy Gallwey (1974) changed the focus of coaching from the sport itself, like the techniques and tactics, to the athlete as a person. In this book, Gallwey makes a distinction between the outer game, which is about the opponent and external goals, and the inner game, which is about the mind of the player, nervousness, self-doubt, etc. This book appears to have become the inspiration for developing coaching in the next decade.

That same shift happened also to the development of people in companies, where the person gained more interest. In 1969, Schein introduced the term process consultation (Schein, 1969, p. 40) to describe coaching in a business environment; a non-directive and questioning (Socratic) role to let a group solve their own problems (Bennett & Bush, 2011). People from the business environment such as companies, senior executives, and HR professionals got interested in this approach (Brock, 2009; Gallwey, 1974). The role of leaders in change and personal development was viewed from the juncture of psychology and management (Katz & Kahn, 1978; Zaleznik, 1977). This interest led to an increased variety in words and approaches used for coaching. From leadership programs terms like executive coaching and business coaching came up (Brock, 2012) which were later followed by terms like life coaching, informal coaching (Vansickel-Peterson, 2010; Walton & Schlesinger, 1979). Also in mentoring several variations of that term became popular like executive mentoring, peer mentoring, group mentoring and formal and informal mentoring (Clutterbuck & Megginson, 1999; Colley, 2001). This resulted in several books and articles about coaching and mentoring in a business setting.

At the end of the 1970s two books about coaching that had a large impact were written about how managers could perform their coaching role; Fournies (1978) and Megginson and Boydell (1979) wrote about the use of coaching by managers. Levinson's (1978) book "The Seasons of a Man's Life" where a mentor can help to guide a person through the several stages of his life also made a big impact. These books placed coaching and mentoring into the field of development of people in a business setting.

From 1900 until the 1970s coaching and mentoring gained popularity. Coaching started from a more psychological perspective with a focus on theory whereas mentoring became popular through upcoming companies and focussed on practical implications (Roche, 1979).

1980-90s

In the 1980s, the use of coaching and mentoring became a more common practice by managers (Crompton, 2012; Evered & Selman, 1989). Mentoring became an accepted and valued way of supporting the social capital of businesses (Laird, 2008). As a result, more rigorous research on mentoring started (Kram, 1980, 1983; Lindholm, 1982). Following the work of Levinson (1978), Kram (1983) wrote one of the most cited papers about mentoring and starting mentoring research in several domains including business and entrepreneurship. In her book, Kram (1985) distinguishes also the male role; advice or modelling, and the more female role; personal- or psychosocial support of Mentor and Athena (Homer, 2007).

In 1988, in the USA, Thomas Leonard began his course, "Design your life" (Kennedy, 2009) which is considered as one of the first to develop coaching as a profession. Around the same time in the UK the GROW-model was developed, building on the work of Gallwey (1974). This GROW-model (sometimes in variations) is one of the most influential coaching models in a business environment. John Whitmore, Graham Alexander and Alan Fine developed this model in collaboration in late 1980s (Jenkins, 2009; Passmore, 2010; Whitmore, 2009).

The availability of a theoretical framework ensured that the development of business courses were theoretically solid and therefore more valuable and more trusted by their participants (Cavanagh, Grant, & Kemp, 2005). Reciprocally, the interest for coaching at companies also influenced the interest from researchers in this field. This interest can be held responsible for a large growth in the number of papers and other publications, as found for coaching by Grant and Cavanagh in Australia (Grant, 2011; Grant & Cavanagh, 2004, 2007) and mentoring where Kram and Ragins (2007, p. 660) from the USA mention the importance of a framework for 'a language and method for describing an understanding these multiple sources of support' (see also Figure 1).

The worldwide number of coach specific training schools/programs increased from eight in 1995 to 164 in 2004, as also did the number of annual coach conferences; from 0 in 1994 to 16 in 2003. The number of professional coach associations also grew from 0 in 1990 to 12 in 2004 (Brock, 2012; Carr, 2019). The number of mentoring programs at a wide range of organizations increased (i.e., Xerox, McDonalds, Federal Express, Douglas Aircraft, Microsoft) (Russell & Adams, 1997). Mentoring was still much less organized than coaching. However in the 1990s some organisations for mentoring started or became international like the International Mentoring Association, started in 1988 in the USA as the National Mentoring Association (International Mentoring Association) and the European Mentoring Centre (EMC) of David Megginson and David Clutterbuck, which was rebranded as the European Mentoring and Coaching Council (EMCC) (European Mentoring & Coaching Council, 2019).

From the mid-1990s, the first two international certifying organizations for coaching were established in the USA: 'Personal and Professional Coaches Association' (PPCA) and the 'International Coach Federation' (ICF). In 1997, these organizations merged (Brock, 2008). The ICF had in 2010 over 20.000 members (coaches) from over 100 countries (ICF, 2010). Based on

an extensive global survey, Price Waterhouse and the ICF estimated that there were about 53.300 coaches over the world (PricewaterhouseCoopers, 2016).

In the 1990s the focus of the papers about coaching and mentoring started to widen, with contributions of coaching to leadership and management and also on feedback improvement (Passmore & Fillery-Travis, 2011). The use of coaching and mentoring also started to widen. For example, in support for lone parents' employment through the New Deal for Lone Parents (NDLP) program in the UK which started in 1997 (Cox, 2000; Evans, Eyre, Millar, & Sarre, 2003). The first attempts were made to systematically examine the effects of coaching (Olivero, Bane, & Kopelman, 1997; Peterson, 1993).

In sum, during this time span coaching and mentoring became familiar among business managers. Coaches and mentors started to organize themselves and more systematic research emerged. Also, the business of coaching and mentoring grew which had its influence on the approach to each other. Enlarging the market as well as their market share became important.

21st century

At the start of the 21st century, the 'sponsorship' model (Kram (1983) emphasizing power, influence and authority of mentoring became popular in the US. In the European context the developmental model, focusing on self-reliance and personal growth was more popular (Deans & Oakley, 2006; Garvey, 2012a). This difference in approach was most likely being influenced by the power distance in their culture (Clutterbuck (2007, p. 646).

Following Parsloe (1995) arguing that coaching and mentoring are similar, a debate started about definitions of coaching and mentoring (Bozeman & Feeney, 2007; Sperry, 2008). Also the origin of coaching and mentoring was questioned as it was suggested that the techniques were borrowed from other disciplines like counselling, psychology, teaching and consulting (Brock, 2008; Feldman, 2005). There were several articles written about the similarities of coaching and mentoring or about the elements that are similar (Abiddin, 2006; Audet, Boucher, Couteret, St-Jean, & Laverrière, 2006; D'Abate, Eddy, & Tannenbaum, 2003; Garvey, 2012b; Klofsten & Öberg, 2008; McKeivitt & Marshall, 2015; Parsloe & Leedham, 2009). They point out that despite the similarities, coaching and mentoring are not the same. Also Parsloe and Wray (2000) point out the differences in the "coaching Management Styles Continuum." Others argue that coaching and mentoring should get away from competition and move to collaboration (Brock, 2009; Clutterbuck, 2004, 2008). As shown in figure 1, the number of publications that are about the combination of coaching and mentoring increased from 11 between 1990 and 1999 to 73 between 2000 and 2009.

In September 2000, the first masters course in Coaching and Mentoring Practice at Oxford Brookes University in the UK, was validated and in 2007 a doctoral course was added. Around that same time the Association of Coach Training Organization (ACTO) was formed as a group of eight coach training institutes (Brock, 2008; Reding & Richarde, 2016). Then the number of courses increased rapidly, with about 635 coaching schools in 2015 that are valued by all kind of quality organisations (Carr, 2015, 2018).

Also from the Oxford Brookes University, the International Journal of Evidence Based Coaching and Mentoring (IJEBCM) began being published in 2003. This journal and the course gave an answer to the call for professionalism of coaching (Bowerman & Collins, 1999; Cavanagh et al., 2005; Grant & Cavanagh, 2004) and mentoring (Lentin & Geol, 2003; Ramanan, Taylor, Davis, & Phillips, 2006). However, the number of journals giving attention to the combination of coaching and mentoring is rather limited with IJEBCM giving the most. This is shown in Table 1 with results of journals with more than 50 publications on coaching and/or mentoring using a search in the PscyINFO database per journal with the same method as in Figure 1.

Table 1 Number of publications about Coaching and Mentoring per journal (1937-2019)

	# Coaching	# Mentoring	# Coaching and Mentoring	Journal starting year
International journal of evidence based coaching and mentoring	144	80	76	2003
Consulting psychology journal: practice and research	123	9	7	2005
International coaching psychology review	68			1937
The career development international	18	36	8	2002
The coaching psychologist	58			2006
Coaching: an international journal of theory, research and practice	55		3	2008
American psychologist		53		1946
Journal of management development	34	14	3	1982

Modern communication techniques and the development of internet have been used as new ways for coaching or mentoring people. For example e-mentoring is a way of mentoring at the University of Alberta and the University of Calgary for women in science (Lentin & Geol, 2003). Thus coaching and mentoring became one of the most important development tools for leaders and managers (Hailey, 2006; Sullivan, 2000). Technological development changes all kinds of support: the new techniques create new fields of support such as e-coaching, e-mentoring, video-support and chat-bots. This again increases the audience as well as the field that provides support, (Kamphorst, 2017; Leitner, 2019; Thompson, Jeffries, & Topping, 2010). Personalized and situated learning is being adapted by the coaching and mentoring community (Dede, 2010; Kuhn, 2018). A survey of 664 UK training managers in 2005 shows that 88% make use of coaching by line-managers and 72% make use of mentoring/buddying schemes (CIPD, 2005). A 2013 survey of 1004 respondent shows that the focus for coaching and mentoring is now more on effectiveness instead of use (CIPD, 2013). This is in line with Brock (2009) and her hypotheses in 'Emergence Curve' and 'Prominence Curve'.

These changes however do not improve clarity about coaching and mentoring (Kanatouri, 2016; Salter, 2014). The overlapping skills of these phenomena (Simon Jenkins, 2013) influence this confusion. Thompson et al. (2010) also recognizes that there is still a lack of clear definitions that has its influence on use of modern technologies. Some try to connect both phenomena and learn from each other (Ghods & Boyce, 2012), for example by using the GROW model for mentoring (Bishop, 2015) or use the knowledge in all kind of helping professions like adult learning, developmental coaching and innovation (Abravanel & Gavin, 2017; Bachkirova, 2011; Cox, 2013). There is also an approach that coaching and mentoring tries to clarify the distinction and still use the knowledge of both phenomena by defining different roles and change between roles (Wiginton III, 2018). More research into the understanding of the interactions between these concepts is important for a better understanding and further development (Bozer & Jones, 2018).

As shown in this review of developments in the 21st century, the fields of coaching and mentoring have must in common with each other and both are influenced by modern technology. Indeed in reaction to the lack of accepted identifiable and distinct skills for coaches and mentors (Hill, 2010), the first steps to close the research gap between coaching and mentoring have been made (Abravanel, 2018; Schermuly & Graßmann, 2018).

Conclusions and discussion

The aim of this research was to analyse the directions in which mentoring and coaching in a business environment has evolved over time, giving a better understanding of the interaction of mentoring and coaching and the current state. We presented a comprehensive review of literature and extended the work of Grant and Cavanagh (2004, 2007) through an electronic search to identify all peer-reviewed papers and dissertations on executive, business and life coaching, mentoring and coaching and mentoring. We found several parallels in the development of coaching

and mentoring. We also found that there is discussion about differences and similarities of coaching and mentoring and the lack of a sound definition makes it difficult to prove the general effectiveness of coaching and/or mentoring (Salter, 2014). The last decades there are movements to more collaboration between both concepts, but a commonly accepted definitions about what is meant with several kinds of support fails (Brinkley & le Roux, 2018; St-Jean et al., 2018).

There are roughly three periods in the development of coaching and mentoring. Until 1970 there were some experiments and developments. Until then some companies and researchers were interested in this support, but no systematic approach was used. From 1970 until 2000 there came more systematic interest, and the fields of coaching and mentoring emerged. Together with the interest from the business field, researchers took interest. However, the fields of coaching and mentoring were treated as separate concepts. From about 2000 the interest increased and both concepts were seen as useful to each other as well as competitors, resulting in some directions for further research. To research the effectiveness of coaching and mentoring, there is clarity needed what is meant by different kinds of coaching and mentoring. Searching for a sound definition is very difficult and may not help as this will not be the solution for the 'land grabbing' (Clutterbuck, 2008) between these fields of supporting people (Salter, 2014). It would be interesting to combine the research on coaching and mentoring instead of considering them as different research areas, as Parsloe (1995) already suggested. In the 21st century, some steps were made in this process, such as with a journal that combines coaching and mentoring (Cox & Ledgerwood, 2003). This journal increased the number of papers talking about coaching and mentoring in part by special issues. Further steps are needed to professionalize coaching and mentoring and to take advantage of both fields.

The next steps could be the development of models that combine coaching and mentoring, and perhaps also other sorts of support, and research on the benefits of coaching and mentoring (Clutterbuck, 2009). This would open the option to do more rigorous research in coaching and mentoring by giving more clarity about these terms (Harding, 2009). To do this the two opposing mindsets, subjectivist and the objectivist, (Burrell & Morgan, 1979) may need to be reconciled. The objectivist (positivist) mindset is most prominent among researchers of coaching and mentoring and prefers defining more than describing (Garvey, 2008). On the other hand, Fayolle et al. (2007) argue that modern research on entrepreneurship should use a more subjective (non-positivist) mindset. Therefore, it is important to make clear which mindset is used when doing research on coaching and mentoring. The clarity about the terms coaching and mentoring can be given from a typology or taxonomy (Bailey, 1994), which involves the mindsets. This paper suggests that further research may need to include coaching and mentoring as related concepts and not focus on the artificial distinctions between these two concepts. This is in line with the directions set out by Schermuly & Graßmann (2018).

In addition to this main direction, there are more fields that could address interesting questions with further research. For example, what is the influence of certification or type of education of coaches and mentors in their performance or what is the relation between other concepts of personal support and coaching or mentoring? With some clarity on what is meant with coaching and mentoring there could be research at influence of modern techniques on the performance of these concepts.

Our study shows that coaching and mentoring share a large history and that the difference is more in the label than in what is done in practice. We hope that this review, extension, and recommendations for future research move the field forward. We acknowledge that this paper has its limitations as the theories of coaching and mentoring have a wide application. In this paper the focus was on business as a field for both concepts. We tried to show that both concepts have a lot in common and that it would be worthwhile to use both concepts together instead of defending each territory.

References

- Abiddin, N.Z. (2006) 'The roles and practices', *The Journal of Human Resource and Adult Learning*, 2(2), pp.107-116.
- Abravanel, M. (2018) *Coaching presence: A grounded theory from the coach's perspective. (Doctoral thesis)*. Montreal, Canada: Concordia University. Available at: <https://spectrum.library.concordia.ca/984432/>.
- Abravanel, M. and Gavin, J. (2017) 'Exploring the evolution of coaching through the lens of innovation', *International Journal of Evidence Based Coaching and Mentoring*, 15(1), pp.24-41. Available at: <https://radar.brookes.ac.uk/radar/items/e87e3064-dc03-4cc0-8593-6a96fca242e7/1/>.
- Alayoğlu, N. (2012) 'Mentoring: An ancient method of training and career development', *TODAÐE's Review of Public Administration*, 6(2), pp.135-170.
- Arthur, M.B. and Rousseau, D.M. (1996) *The boundaryless career: A new employment principle for a new organizational era*. New York: Oxford University Press.
- Audet, J., Boucher, N., Couteret, P. and et al, (2006) *Mentoring and coaching the entrepreneur: Features and success factors*. European Mentoring & Coaching Conference, 2006, Köln, Germany.
- Bachkirova, T. (2011) *Developmental coaching: Working with the self*. UK: McGraw-Hill Education.
- Bailey, K.D. (1994) *Typologies and taxonomies. An introduction to classification techniques (Vol. 102)*. Thousand Oaks, CA: Sage.
- Baumgarten, F. (1933) *Die charaktereigenschaften*. Bern, Switzerland: A. Francke.
- Bennett, J.L. and Bush, M.W. (2011) *Executive coaching: An emerging role for management consultants*.
- Bishop, J. (2015) *An investigation into the extent and limitations of the grow model for coaching and mentoring online: Towards 'prosthetic learning'*. EEE'15 - The 14th International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government, 2015, Las Vegas, USA.
- Bowerman, J. and Collins, G. (1999) 'The coaching network: A program for individual and organizational development', *Journal of Workplace learning: Employee Counseling Today*, 11(8), pp.291-297.
- Bozeman, B. and Feeney, M.K. (2007) 'Toward a useful theory of mentoring: A conceptual analysis and critique', *Administration & Society*, 39(6), pp.719-739. DOI: 10.1177/0095399707304119.
- Bozer, G. and Jones, R.J. (2018) 'Understanding the factors that determine workplace coaching effectiveness: A systematic literature review', *European Journal of Work and Organizational Psychology*, 27(3), pp.342-361. DOI: 10.1080/1359432x.2018.1446946.
- Brinkley, M.-L. and le Roux, I. (2018) 'Coaching as a support function for potential entrepreneurs', *The Southern African Journal of Entrepreneurship and Small Business Management*, 10(1). DOI: 10.4102/sajesbm.v10i1.99.
- Brock, V.G. (2008) *Grounded theory of the roots and emergence of coaching. (Doctoral Partial Fulfillment)*. Maui (HI), USA: International University of Professional Studies. Available at: <https://libraryofprofessionalcoaching.com/wp-app/wp-content/uploads/2011/10/dissertation.pdf>.
- Brock, V.G. (2009) 'Professional challenges facing the coaching field from an historical perspective', *The International Journal of Coaching in Organizations*, 7(1), p.11.
- Brock, V.G. (2010) *History of coaching disciplines*.
- Brock, V.G. (2012) 'Introduction to coaching history', in *UT Dallas Coaching News and the Executive and Professional Coaching Program*. Dallas, TX: UT Dallas Jindal School of Management, p.3.
- Burrell, G. and Morgan, G. (1979) *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Aldershot, UK: Ashgate Publishing.
- Caracciolo, L.-A. (1760) *The true mentor, or, an essay on the education of young people in fashion*. London, UK: J. Coote.
- Carneiro, R.L. (1981) 'Herbert spencer as an anthropologist', *The Journal of Libertarian Studies*, 5(2), pp.153-210.
- Carr, R. (2015) *The end of coaching as we knew it*. Available at: <https://www.linkedin.com/pulse/end-coaching-we-knew-rey-carr/>.
- Carr, R. (2018) *Coach training programs and schools*. Available at: <https://www.peer.ca/coachingschoolsintro.html>.
- Carr, R. (2019, 17-7-2019) [Mail about results of the website].
- Cavanagh, M., Grant, A.M. and Kemp, T. (2005) *Evidence-based coaching (vol1)*. Bowen Hills Qld, Aus: Australian Academic Press.
- Chemers, M.M. (2000) 'Leadership research and theory: A functional integration', *Group Dynamics: Theory, Research, and Practice*, 4(1), pp.27-43. DOI: 10.1037/1089-2699.4.1.27.
- Chartered Institute of Personnel and Development (2005) *Annual survey report 2005. Training and development*. London: CIPD.

- Chartered Institute of Personnel and Development (2013) *Annual survey report 2013. Learning and talent development*. London: CIPD.
- Clutterbuck, D. (2004) *Everyone needs a mentor. Fostering talent in your organisation* (4th edn.). London: CIPD.
- Clutterbuck, D. (2007) *The handbook of mentoring at work: Theory, research, and practice*. Thousand Oaks, CA: Sage.
- Clutterbuck, D. (2008) 'What's happening in coaching and mentoring? And what is the difference between them?', *Development and Learning in Organizations*, 22(4), pp.8-10. DOI: 10.1108/14777280810886364.
- Clutterbuck, D. (2009) 'Coaching and mentoring in support of management development', in Armstrong, S.J. and Fukami, C.V. (eds.) *The sage handbook of management learning, education and development*. Thousand Oaks, CA: Sage, pp.477-497.
- Clutterbuck, D. and Megginson, D. (1999) 'Every executive needs a mentor', in *Mentoring executives and directors*. Abingdon, UK: Routledge.
- Oxford Brookes University (2019) *Coaching and mentoring practice*. Available at: <https://www.brookes.ac.uk/courses/postgraduate/coaching-and-mentoring-practice/>.
- Coll, J.H. and Raghavan, P. (2004) 'Mentoring: Who and how', *Journal of College Teaching & Learning (TLC)*, 1(8), pp.65-77. DOI: 10.19030/tlc.v1i8.1978.
- Colley, H. (2001) 'Righting rewritings of the myth of mentor: A critical perspective on career guidance mentoring', *British Journal of Guidance & Counselling*, 29(2), pp.177-197. DOI: 10.1080/03069880020047120.
- Colley, H. (2002) 'A 'rough guide' to the history of mentoring from a marxist feminist perspective', *Journal of Education for Teaching*, 28(3), pp.257-273. DOI: 10.1080/0260747022000021403.
- Cox, E.R. (2000) 'The call to mentor', *Career Development International*, 5(4-5), pp.202-210.
- Cox, E. (2013) *Coaching understood: A pragmatic inquiry into the coaching process*. London: Sage.
- Cox, E. and Ledgerwood, G. (2003) 'The new profession', *International Journal of Evidence Based Coaching and Mentoring*, 1(1), pp.1-3. Available at: <https://radar.brookes.ac.uk/radar/items/ce783bb6-e49e-478c-ae8-b9a1c1bdd466/1/>.
- Crompton, B. (2012) *The effect of business coaching and mentoring on small-to-medium enterprise performance and growth*. Melbourne, Australia: RMIT University.
- D'Abate, C.P., Eddy, E.R. and Tannerbaum, S.I. (2003) 'What's in a name? A literature-based approach to understanding mentoring, coaching, and other constructs that describe developmental interactions', *Human Resource Development Review*, 2(4), pp.360-384. DOI: 10.1177/1534484303255033.
- de Caracciolo, L.-A. (1759) *Le véritable mentor ou l'éducation de la noblesse*. Liège, Belgium: De l'Imprimerie de J.F. Bassompierre.
- De Haan, E. (2007) *Relationele coaching. Wegen naar meesterschap in helpende gesprekken*. Assen, the Netherlands: Van Gorcum.
- De Haan, E. and Burger, Y. (2007) *Coachen met collega's: Praktijkboek individuele consultatie*. Assen, the Netherlands: Koninklijke van Gorcum BV.
- Deans, F. and Oakley, L. (2006) *Coaching and mentoring for leadership - development in civil society*. Available at: https://peaceinfrastructures.org/Home%20Documents/Coaching%20and%20Mentoring%20for%20Leadership%20Development%20in%20Civil%20Society/Intrac_CoachingMentoringCS_2006.pdf.
- Dede, C. (2010) 'Technological supports for acquiring 21st century skills', *International encyclopedia of education*, 3, pp.158-166.
- Dixon, P., Garnham, N. and Jackson, A. (2004) 'Shareholders and shareholding: The case of the football company in late victorian england', *Business History*, 46(4), pp.503-524. DOI: 10.1080/0007679042000231810.
- Douglas, C.A. (1997) *Formal mentoring programs in organizations. An annotated bibliography*. Greensboro, NC: Center for Creative Leadership.
- European Mentoring & Coaching Council (2019) *From 1992 until now*. Available at: https://www.emccouncil.org/about_emcc/history/from_1992_until_now/.
- Evans, M., Eyre, J., Millar, J. and Sarre, S. (2003) *New deal for lone parents: Second synthesis report of the national evaluation*. London: Department for Work and Pensions.
- Evered, R.D. and Selman, J.C. (1989) 'Coaching and the art of management', *Organizational Dynamics*, 18(2), pp.16-32. DOI: 10.1016/0090-2616(89)90040-5.
- Fayolle, A. (eds.) (2007) *Handbook of research in entrepreneurship education*. Cheltenham, UK: Edward Elgar Publishing.
- Feldman, D. (2005) 'Executive coaching: A review and agenda for future research', *Journal of Management*, 31(6), pp.829-848. DOI: 10.1177/0149206305279599.
- Fénelon, F. d. S. d. L. M., Smollett, T. (trans) and Chilton, L.A. (ed) (1699) *Aventures de télémaque, the adventures of telemachus, the son of ulysseus*. Athens, Georgia, USA: University of Georgia Press.

- Fournies, F.F. (1978) *Coaching for improved work performance*. New York: Van Nostrand Reinhold Company.
- Freud, S. (2001) *The ego and the id: The standard edition of the complete psychological works of Sigmund Freud*. Vintage Classics.
- Freud, S. and Smith, I. (ed) (2010) *Freud: Complete works*.
- Gallwey, W.T. (1974) *The inner game of tennis. The classic guide to the mental side of peak performance*. New York: Random House Trade Paperbacks.
- Galton, F. (1884) 'Measurement of character', *Fortnightly Review*, 36(8), pp.179-185.
- Garvey, B. (2008) 'The meaning of coaching and mentoring', in *An introduction to coaching and mentoring*. Thousand Oaks, CA: Sage, pp.7-27.
- Garvey, B. (2012a) 'Mentoring for leadership development: A case study of executive mentoring during the banking crisis', *The International Journal of Mentoring and Coaching*, 10(1), pp.56-76.
- Garvey, B. (2012b) *A very short, fairly interesting and reasonably cheap book about coaching and mentoring*. London: Sage.
- Garvey, B., Stokes, P. and Megginson, D. (2009) *Coaching and mentoring, theory and practice*. London: Sage.
- Gaylord, E.C. (1967) *Modern coaching psychology*. Dubuque (IA) USA: Wm. C. Brown.
- Ghods, N. and Boyce, C. (2012) 'Virtual coaching and mentoring', in Passmore, J., Peterson, D.B. and Freire, T. (eds.) *The wiley-blackwell handbook of the psychology of coaching and mentoring*. John Wiley & Sons, pp.501-523.
- Glanville, S. and Bonthuys, C. (2012) *Arthur d. Little*. Available at: <https://www.adlittle.com/>.
- Gorby, C.B. (1937) 'Everyone gets a share of the profits', *Factory Management & Maintenance*, 95, pp.82-83.
- Grant, A.M. (2011) *Workplace, executive and life coaching: An annotated bibliography from the behavioural science and business literature (1st jan 2011) scholarly coaching publications from 1937 to 1st jan 2011 (n =634)*. Sydney: University of Sydney.
- Grant, A.M. and Cavanagh, M.J. (2004) 'Toward a profession of coaching: Sixty-five years of progress and challenges for the future', *Journal of Evidence Based Coaching and Mentoring*, 2(1), pp.1-16. Available at: <https://radar.brookes.ac.uk/radar/items/8d68efa3-3be5-4c48-8f40-04f9730d73d7/1/>.
- Grant, A.M. and Cavanagh, M.J. (2007) 'Evidence-based coaching: Flourishing or languishing? ', *Australian Psychologist*, 42(4), pp.239-254. DOI: 10.1080/00050060701648175.
- Griffiths, C.R. (1926) *Psychology of coaching: A study of coaching methods from the point of view of psychology*. C. Scribner's sons.
- Haggard, D.L., Dougherty, T.W., Turban, D.B. and Wilbanks, J.E. (2010) 'Who is a mentor? A review of evolving definitions and implications for research', *Journal of Management*, 37(1), pp.280-304. DOI: 10.1177/0149206310386227.
- Hailey, J. (2006) *Ngo leadership development. A review of the literature*. INTRAC. Praxis series. Available at: <https://www.intrac.org/resources/praxis-paper-10-ngo-leadership-development-review-literature/>.
- Hamlin, R.G., Ellinger, A.D. and Beattie, R.S. (2009) 'Toward a profession of coaching? A definitional examination of 'coaching,' 'organization development,' and 'human resource development'', *International Journal of Evidence Based Coaching and Mentoring*, 7(1), pp.13-38. Available at: <https://radar.brookes.ac.uk/radar/items/f5406269-f265-47ff-a8ca-337a067e9c0a/1/>.
- Harding, C. (2009) 'Researcher as goldilocks: Searching for a methodology that is 'just right' for a coaching and mentoring study', *International Journal of Evidence Based Coaching and Mentoring*, pp.11-21. Available at: <https://radar.brookes.ac.uk/radar/items/eba34984-78c8-4f56-bed7-08780e3cefa8/1/>.
- Hill, G.I. (2010) *Executive coaching: Perspectives of effectiveness from executives and coaches (Masters by Research)*. Brisbane, Australia: Queensland University of Technology. Available at: <http://eprints.qut.edu.au/40237>.
- Homer, and Fitzgerald, R. (trans) (2000) *The odyssey*. New York: Farrar, Straus and Giroux.
- Homer, and Johnston, I. (trans) (2007) *The odyssey*. Arlington, VI, USA: Richer Resources Publications.
- Honorius, (1793-1796) *Female mentor: Or select conversations*.
- ICF (2010) *Icf-background-info*.
- International Mentoring Association (n.d.) *History*. Available at: <https://mentoringassociation.org/history.htm>.
- Janssen, S. (2015) *A self-determination theory perspective on mentoring relationships at work (Doctoral thesis)*. Enschede, Netherlands: University of Twente. DOI: 10.3990/1.9789036539807.
- Jenkins, S. (2009) 'The impact of the inner game and Sir John Whitmore on coaching', in *Annual Review of High Performance Coaching and Consulting*. UK: Performance Consultants International. Available at: http://www.performanceconsultants.com/wp-content/uploads/images_pdfs_Inner_Game_Whitmore_Coaching.pdf.

- Jenkins, S. (2013) 'David Clutterbuck, mentoring and coaching', *International Journal of Sports Science & Coaching*, 8(1), pp.139-153. DOI: [10.1260/1747-9541.8.1.139](https://doi.org/10.1260/1747-9541.8.1.139).
- John, O.P., Angleitner, A. and Ostendorf, F. (1988) 'The lexical approach to personality: A historical review of trait taxonomic research', *European Journal of Personality*, 2, pp.171-203. DOI: [10.1002/per.2410020302](https://doi.org/10.1002/per.2410020302).
- Kamphorst, B.A. (2017) 'E-coaching systems', *Personal and Ubiquitous Computing*, 21(4), pp.625-632. DOI: [10.1007/s00779-017-1020-6](https://doi.org/10.1007/s00779-017-1020-6).
- Kanatouri, S. (2016) 'Mapping the e-coaching field through the lens of an online community', in *Coaching als individuelle antwort auf gesellschaftliche entwicklungen*, pp.322-331.
- Katz, D. and Kahn, R.L. (1978) *The social psychology of organizations*. John Wiley & Sons.
- Kennedy, J. (2009) *A definition of coaching (undergraduate essay)*.
- Klages, L. and Johnston, W.H. (trans.) (1926) *The science of character*.
- Klofsten, M. (2008) *Coaching versus mentoring: Are there any differences?*. HTSF, , Enschede, the Netherlands.
- Kram, K.E. (1980) *Mentoring processes at work: Developmental relationships in managerial careers*. New Haven (CT), USA: Yale University.
- Kram, K.E. (1983) 'Phases of the mentor relationship', *The Academy of Management Journal*, 26(4), pp.608-625. DOI: [10.2307/255910](https://doi.org/10.2307/255910).
- Kram, K.E. (1985) *Mentoring at work: Developmental relationships in organizational life*.
- Kram, K.E. and Ragins, B.R. (2007) 'The landscape of mentoring in the 21st century', in Ragins, B.R. and Kram, K.E. (eds.) *The handbook of mentoring at work*. Thousand Oaks (CA), USA: Sage, pp.659-687.
- Kuhn, L. (2018) *Berufs-, studien- und laufbahnberatung goes digital (Master's thesis)*. Zurich, Switzerland: Zurich University of Applied Sciences.
- Laird, P.W. (2008) 'Putting social capital to work', *Business History*, 50(6), pp.685-694. DOI: [10.1080/00076790802431242](https://doi.org/10.1080/00076790802431242).
- Law, H. (2013) *The psychology of coaching, mentoring and learning* (2nd edn.). Chichester, UK: John Wiley & Sons.
- Leitner, M. (2019) 'Chatbots & co - digitales coaching mit künstlicher intelligenz', *Wirtschaftspsychologie aktuell - Zeitschrift für Personal und Management*, 3.
- Lentin, J. and Geol, P. (2003) *Strategies for success in mentoring: A handbook for mentors and protégés*. Apegga.
- Levinson, D.J. (1978) *The seasons of a man's life*. New York: Knopf.
- Lindholm, J. (1982) *Mentoring: The mentor's perspective*.
- Malamud, M. (1996) 'Gener and spiritual self-fashioning: The master-disciple relationship in classical sufism', *Journal of the American Academy of Religion*, 64(1), pp.89-117. DOI: [10.1093/jaarel/LXIV.1.89](https://doi.org/10.1093/jaarel/LXIV.1.89).
- McCarthy, G. and Ahrens, J. (2011) *Challenges of the coaching manager*. 25th Annual Australia New Zealand Academy of Management Conference (ANZAM 2011), , Wellington, New Zealand.
- McKevitt, D. and Marshall, D. (2015) 'The legitimacy of entrepreneurial mentoring', *International Journal of Entrepreneurial Behavior & Research*, 21(2), pp.263-280. DOI: [10.1108/ijeb-05-2014-0089](https://doi.org/10.1108/ijeb-05-2014-0089).
- McKinstry, S., Ding, Y.Y. and Livingstone, R. (2014) 'Anatomy of a rural meat operation: The family values/firm strategy nexus at Jackson's of Symington, c.1890-1981', *Business History*, 56(7), pp.1143-1168. DOI: [10.1080/00076791.2013.867329](https://doi.org/10.1080/00076791.2013.867329).
- Meggison, D. and Boydell, T. (1979) *A manager's guide to coaching*. London: British Association for Commercial and Industrial Education.
- Murray, M. (2001) *Beyond the myths and magic of mentoring: How to facilitate an effective mentoring process, new and revised edition*. San Francisco: Jossey-Bass.
- Olivero, G., Bane, K.D. and Kopelman, R.E. (1997) 'Executive coaching as a transfer of training tool: Effects on productivity in a public agency', *Public Personnel Management*, 26(4), pp.461-469. DOI: [10.1177/009102609702600403](https://doi.org/10.1177/009102609702600403).
- Parsloe, E. (1995) *Coaching, mentoring and assessing: A practical guide to developing competence* (revised edn.). London: Kogan Page.
- Parsloe, E. and Leedham, M. (2009) *Coaching and mentoring: Practical conversations to improve learning*. London: Kogan Page.
- Parsloe, E. and Wray, M. (2000) *Coaching and mentoring: Practical methods to improve learning*. London: Kogan Page.
- Passmore, J. (2010) *Excellence in coaching. The industry guide*. London: The Association for Coaching.
- Passmore, J. and Fillery-Travis, A. (2011) 'A critical review of executive coaching research: A decade of progress and what's to come', *Coaching: An International Journal of Theory, Research and Practice*, 4(2), pp.70-88. DOI:

10.1080/17521882.2011.596484.

Peer Resources (2004) *The mentor news*.

Peterson, D. (1993) *Measuring change: A psychometric approach to evaluating individual coaching outcomes*. Conference of the Society for Industrial and Organizational Psychology, San Francisco.

PricewaterhouseCoopers (2016) *2016 ICF global coaching study*. Available at: https://coachfederation.org/app/uploads/2017/12/2016ICFGlobalCoachingStudy_ExecutiveSummary-2.pdf.

Raina, M.K. (2002) 'Guru-shishya relationship in Indian culture: The possibility of a creative resilient framework', *Psychology and Development Societies*, 14(1), pp.167-198. DOI: 10.1177/097133360201400109.

Ramanan, R.A., Taylor, W.C., Davis, R.B. and Phillips, R.S. (2006) 'Mentoring matters', *Journal of General Internal Medicine*, 21(4), pp.340-345. DOI: 10.1111/j.1525-1497.2006.00346.x.

Reding, P.J. and Richarde, P. (2016) *The history and future of acto*. Available at: <https://actoonline.org/inside-acto/history-of-acto/>.

Ritter, M.L. (1994) *Senior leader mentoring: Its role in leader development doctrine (Master's thesis)*. West Point, USA: U.S. Army Command and General Staff College.

Roberts, A. (1998) 'The androgynous mentor: Bridging gender stereotypes in mentoring', *Mentoring & Tutoring: Partnership in Learning*, 6(1-2), pp.18-30. DOI: 10.1080/0968465980060102.

Roberts, A. (1999) 'Homers mentor. Duties fulfilled or misconstrued', *History of Education Journal*.

Roche, G.R. (1979) 'Much ado about mentors', *Harvard Business Review*, 1979(1), pp.14-31. Available at: <https://hbr.org/1979/01/much-ado-about-mentors>.

Russell, J.E.A. (1991) 'Career development interventions in organizations', *Journal of Vocational Behavior*, 38, pp.237-287.

Russell, J.E.A. and Adams, D.M. (1997) 'The changing nature of mentoring in organizations: An introduction to the special issue on mentoring in organizations', *Journal of Vocational Behavior*, 51, pp.1-14. DOI: 10.1006/jvbe.1997.1602.

Salter, T. (2014) 'Mentor and coach: Disciplinary, interdisciplinary and multidisciplinary approaches', *International Journal of Evidence Based Coaching and Mentoring*, pp.1-8. Available at: <https://radar.brookes.ac.uk/radar/items/e8bc51c3-5538-45d9-9e89-de157b0cab5e/1/>.

Schein, E.H. (1969) *Process consultation: Its role in organization development*. Reading (MA), USA: Addison-Wesley.

Schermuly, C.C. and Graßmann, C. (2018) 'A literature review on negative effects of coaching – what we know and what we need to know', *Coaching: An International Journal of Theory, Research and Practice*, 12(1), pp.39-66. DOI: 10.1080/17521882.2018.1528621.

Schmitz, A., Urbano, D., Guerrero, M. and et al, (2017) *Entrepreneurial universities. Exploring the academic and innovative dimensions of entrepreneurship in higher education*. Cham, Switzerland: Springer International.

Simon, H.A. (1965) *Administrative behavior (Vol 4)*. Cambridge: Cambridge University Press.

Slawek, S. (2000) *South Asia: The Indian subcontinent*. New York: Garland Publishing, pp.457-467.

Spence, G.B. (2007) 'Further development of evidence-based coaching: Lessons from the rise and fall of the human potential movement', *Australian Psychologist*, 42(4), pp.255-265. DOI: 10.1080/00050060701648142.

Sperry, L. (2008) 'Executive coaching: An intervention, role function, or profession?', *Consulting Psychology Journal: Practice and Research*, 60(1), pp.33-37. DOI: 10.1037/1065-9293.60.1.33.

Sprott, W.J.H. (1929) 'The science of character (review)', *Mind, New Series*, 38(125), pp.513-520.

St-Jean, E. and Audet, J. (2012) 'The role of mentoring in the learning development of the novice entrepreneur', *International Entrepreneurship and Management Journal*, 8(1), pp.119-140. DOI: 10.1007/s11365-009-0130-7.

St-Jean, E., Radu-Lefebvre, M. and Mathieu, C. (2018) 'Can less be more? Mentoring functions, learning goal orientation, and novice entrepreneurs' self-efficacy', *International Journal of Entrepreneurial Behavior & Research*, 24(1), pp.2-21. DOI: 10.1108/ijeb-09-2016-0299.

Stambaugh, J. and Mitchell, R. (2018) 'The fight is the coach: Creating expertise during the fight to avoid entrepreneurial failure', *International Journal of Entrepreneurial Behavior & Research*, 24(5), pp.994-1015. DOI: 10.1108/ijeb-09-2016-0287.

Stec, D. (2012) 'Using history to comprehend the currency of a passionate profession', *Journal of Management History*, 18(4), pp.419-444. DOI: 10.1108/17511341211258756.

Stogdill, R.M. (1948) 'Personal factors associated with leadership: A survey of the literature', *Journal of Psychology*, 25(1), pp.35-71. DOI: 10.1080/00223980.1948.9917362.

Sullivan, R. (2000) 'Entrepreneurial learning and mentoring', *International Journal of Entrepreneurial Behavior & Research*, 6(3), pp.160-175. DOI: 10.1108/13552550010346587.

Thackeray, W.M. (1849) *The history of pendennis*. Univeristy Park (PA), USA: Pennsylvania State University.

- The 1911 Classic Encyclopedia (1911) 'Socrates (philosopher)', in *The 1911 Classic Encyclopedia*. Available at: http://www.1911encyclopedia.org/Socrates_%28philosopher%29.
- Thompson, L., Jeffries, M. and Topping, K. (2010) 'E-mentoring for e-learning development', *Innovations in Education and Teaching International*, 47(3), pp.305-315. DOI: 10.1080/14703297.2010.498182.
- Vansickel-Peterson, D.L. (2010) *Coaching efficacy with academic leaders: A phenomenological investigation (PhD thesis)*. Lincoln (NE), USA: University of Nebraska.
- Wach, J. (1962) 'Master and disciple: Two religio-sociological studies', *The Journal of Religion*, 42(1), pp.1-21.
- Walton, R.E. and Schlesinger, L.A. (1979) 'Do supervisors thrive in participative work systems?', *Organizational Dynamics*, 7(3), pp.25-38. DOI: 10.1016/0090-2616(79)90025-1.
- Whitmore, J. (2009) *Coaching for performance* (4th edn.). London: Nicholas Breadley.
- Wickman, F. and Sjodin, T. (1997) *Mentoring: The most obvious yet overlooked key to achieving more in life than you dreamed possible: A success guide for mentors*. New York: McGraw-Hill.
- Wiginton III, J.G. (2018) *A case study: Broad insights a survey of business coaching impacts on companies and their leaders (doctoral thesis)*. Paris, France: Paris School of Business.
- Wilson, C. (2004) 'Coaching and coach training in the workplace', *Industrial and Commercial Training*, 36(3), pp.96-98. DOI: 10.1108/00197850410532087.
- Youth Business International (2018) *Exploring the impact of voluntary business mentoring on young entrepreneurs*. Available at: https://www.youthbusiness.org/file_uploads/YBI-Report-Exploring-the-impact-of-voluntary-business-mentoring-on-young-entrepreneurs-Digital.pdf.
- Zaleznik, A. (1977) 'Managers and leaders', *Harvard Business Review*, 55, pp.67-78.

About the authors

Ir. Ruud Koopman works at the school of Entrepreneurship at Saxion University and developed several entrepreneurial programs. He was a member of the regional parliament.

Prof dr. Paula Danskin Englis is Professor of Management at the Campbell School of Business, Berry College, where she leads the Entrepreneurship Program

Dr. Michel L. Ehrenhard is an associate professor of strategic entrepreneurship with a research interest into entrepreneurial leadership, strategic change and technology implementation.

Prof. dr. Aard Groen is full professor of Entrepreneurship at the University of Groningen and co-founder of NIKOS and the UGCE; both Centres of Entrepreneurship.