

GÖTEBORGS UNIVERSITET  
PSYKOLOGISKA INSTITUTIONEN

**Executive coaching: Do home assignments, role-playing and positive feedback improve leadership performance?**

Audrey Asseraf & Tove Wannehag

Examensarbete 30 högskolepoäng  
Psykologprogrammet  
Kurskod: PM2519  
Vårterminen 2021

Handledare: Martin Grill

# Executive coaching: Do home assignments, role-playing and positive feedback improve leadership performance?

Audrey Asseraf & Tove Wannehag

**Abstract.** This study aimed to examine whether home assignments, role-playing and positive feedback in executive coaching improve leadership performance among managers in municipal functions ( $n=20$ ). Employee questionnaires and quantified coaching sessions were analyzed using Structural Equation Modeling. Results showed that high occurrence of home assignments did not predict improved employee satisfaction with leadership ( $d=-.95, p=.16$ ), leadership effectiveness ( $d=.07, p=.24$ ) or employee extra effort ( $d=-.96, p=.40$ ). Neither did high occurrence of role-playing predict improved employee satisfaction with leadership ( $d=-.35, p=.18$ ), leadership effectiveness ( $d=.10, p=.33$ ) or employee extra effort ( $d=-.41, p=.24$ ). Results also showed that positive feedback did not predict improved employee satisfaction with leadership ( $d=-.01, p=.83$ ), leadership effectiveness ( $d=.05, p=.31$ ) or employee extra effort ( $d=-.10, p=.17$ ). The complexity of coaching and its active ingredients are discussed.

Management can be a difficult and demanding job and in order to develop skills to communicate, collaborate and lead teams effectively, managers may need training (Katz & Miller, 1996). Executive coaching is a method aimed at developing functional and effective leadership. Demands for executive coaching have increased in recent years, which may be due to the increased demands for new skills among managers (Joo, 2005; Sherman & Freas, 2004). Although executive coaching is a growing area and we see more and more psychologists engage in coaching, there is still little consensus about its definition, function (Sperry, 2008) and active ingredients (de Haan, Duckworth, Birch & Jones, 2013). Therefore, the present study aimed to investigate whether three interventions in executive coaching can improve managers' leadership performance. This study was carried out within an ongoing research project aiming to investigate behavioral executive coaching (BEC) (Grill, Pousette & Björnsdotter, manuscript). The preliminary results have indicated that BEC can be a valid leadership development intervention. Leadership performance among the managers showed small improvements in terms of employee satisfaction with leadership ( $d=0.49$ ), leadership effectiveness ( $d=0.28$ ), and employee extra effort ( $d=0.45$ ). However, the result shows that there was a small variation in how the managers in the intervention group developed (Pousette, Björnsdotter & Grill, manuscript). On the basis of these findings, we chose to investigate whether the occurrence of three interventions, namely home assignments, role-playing and positive feedback, can explain this variation.

## **The importance of leadership for employee well-being**

The relationship with your immediate superior manager is of great importance for the well-being, commitment, and responsibility of employees (van Dierendonk, Haynes, Borrill & Stride, 2004; Skakon, Nielsen, Borg & Guzman, 2010). Poor relationships between managers and employees, where leadership is characterized by a lack of feedback, low support, and a lack of communication skills, seem to reduce employee's well-being and significantly contribute to stress (Skakon et al., 2010). Managers' non-listening behavior can also predict emotional exhaustion and depressive symptoms in employees (Theorell, Nyberg & Romanowska, 2013). Positive leadership behaviors such as showing consideration, providing support, and helping employees feel a high level of empowerment, correlate positively with affective well-being and low stress levels in subordinates (Skakon et al., 2010).

Executive coaching can give managers the opportunity to slow down and gain an increased awareness of the effects of their behaviors. This can increase the likelihood that managers will become more aware of their choices and behaviors in the future (Joo, 2005). One of the purposes with executive coaching is to train the manager to be able to regulate his or her own behavior, as this has a connection to both employee well-being and success in the workplace (Gregory, Beck & Carr, 2011; Joo, 2005).

## **What is executive coaching?**

Executive coaching is a term that began to appear in the literature in the 1980's and several approaches have emerged since (Ducharme, 2004). There are several articles where the value of executive coaching is emphasized. In the end of the 1990's researchers had several definitions of executive coaching. Among all definitions in the literature the one proposed by Kilburg (1996) has received widespread acceptance (Rekalde, Landeta & Albizu, 2015):

[...] "a helping relationship formed between a client who has managerial authority and responsibility in an organization and a consultant who uses a wide variety of behavioral techniques and methods to help the client to achieve a mutually identified set of goals to improve his or her professional performance and personal satisfaction and, consequently, to improve the effectiveness of the client's organization within a formally defined coaching agreement." (Kilburg 1996, p. 142)

According to Sherman and Freas (2004), executive coaching aims to create learning, behavioral change, and development, which also leads to economic growth for the organization. Joo (2005) defines executive coaching as a process between a professional coach and a manager that aims to achieve a behavioral change, through increased self-awareness and knowledge, which can bring success at both the individual and organizational level. Although there are small differences between these definitions the common purpose of executive coaching can be reduced to behavioral change, self-awareness, and learning, leading to improved managerial and organizational performance (Joo, 2005).

There are several differences between therapeutic interventions and those that are designed for executive coaching (Richard, 1999). For example, therapeutic interventions are often focused on diagnosis-bound behaviors while coaching interventions usually are

more focused on improving job performance (Richard, 1999). Other differences between therapy and coaching are differences in goals or motives for getting help, characteristics of the client (e.g., high vs low functioning), differences in the contextual knowledge of the coach etcetera (McKenna & Davis, 2009). Although coaching is not therapy, there are some similarities (de Haan, 2008; McKenna & Davis, 2009). Executive coaching can, in the same way as therapy, focus on personal development in areas such as dealing with conflicts or emotional skills. From this perspective and with this in mind, both coaching and therapy belong to what we can call a “helping relationship” (de Haan, 2008). Not surprisingly, psychotherapeutic research has therefore influenced some of the research in the domain of coaching (McKenna & Davis, 2009).

There are several different theoretical approaches in the field of executive coaching (Grant, 2008; Shoukry & Cox, 2018) and there is a use of different strategies and techniques from different fields (Spence & Oades, 2011; Theeboom, Beersma, & Van Vianen, 2014). Cognitive behavior therapy (CBT) is a method with a wide variety of interventions that lies on a continuum from behavioral to cognitive (Ducharme, 2004). CBT interventions focus on inducing behavioral change, and are strongly supported in research (Kåver, 2016; Kazantzis et al., 2018). Research also shows that CBT has promising results in developing functional leadership behaviors among managers, which in turn promotes employee development (Ratiu, David & Baban, 2016).

### **Active ingredients in executive coaching**

Research on coaching and its mechanisms has grown over the last 20 years (Grant, 2016; Gyllensten, Beskow & Palmer, 2011), with a focus on active ingredients that can determine the coaching’s efficacy (De Haan, Bertie, Day & Sills, 2010; Theeboom et al., 2014). The “how” in coaching research is mentioned in various ways in the literature but has sometimes led to contrasting findings (Terblanche, 2020). The lack of the “how” in coaching research may be a result of several different theoretical approaches in the field (Grant, 2008; Shoukry & Cox, 2018). This could have led to coaches using different strategies, tools, and techniques that sometimes have little empirical evidence (Spence & Oades, 2011; Theeboom et al., 2014).

In one metaanalysis, seven factors are identified that contribute to successful executive coaching: self-efficacy, the motivation of the manager, goal orientation, trust, interpersonal attraction, feedback intervention, and support from the coach (Bozer & Jones., 2018). Rekalde et al (2015) shows in their study that the most important factors in executive coaching can be grouped into five categories: 1) factors that are associated with the characteristics of the coach, such as the ability to transmit trust, communication skills, and commitment, 2) factors that are associated with the manager’s behaviors, for example motivation or need to learn and change, and commitment, 3) factors that are associated with the coaching relationship, for example trust, confidentiality, empathy, and respect, 4) factors that are associated with the coaching ingredients such as feedback 5) factors that are associated with the organizational context, for example whether or not the organization is ensuring support during and after the executive coaching.

A central part of effective coaching that is mentioned in various studies is goal clarity (Grant 2012; 2014; Kilburg, 1996), which means that the coach and manager mutually have identified goals in order to improve individual performance (Kilburg,

1996). Goal clarity is a factor that has been identified as one of the most important factors for success in coaching contexts (Grant 2012; 2014).

The relationship between coach and manager has been proven to be of great importance within coaching contexts and has shown to have positive effects on coaching outcomes (McKenna & Davis, 2009; de Haan, Grant, Burger & Eriksson., 2016; Wasylyshyn, 2003; Rekalde et al., 2015). Grant (2014) shows in his study a significant correlation between coaching success and “ideal” coaching relationship, namely managers’ ratings of what an ideal coaching relationship should involve, and whether this has been achieved during the executive coaching. On the other hand, the relationship between coaching success and managers’ rating of satisfaction with the relationship was not significant. This somewhat counter-intuitive point may imply that some studies examining coaching relationships and their importance for the coaching can be questioned.

There are both differences and similarities between coaching and therapy (McKenna & Davis, 2009). McKenna and Davis (2009) point out that although psychotherapy and coaching may differ in many ways, active ingredients in therapy can be generalizable to coaching and predictors of coaching outcomes. The research on which aspects of coaching are the most important is limited (Passmore & Fillery-Travis, 2011). One can speculate that the relationship between coach and manager is central, and research points in this direction (McKenna & Davis, 2009; de Haan et al., 2016; de Haan, 2008; Wasylyshyn, 2003; Rekalde et al., 2015). Theory and technique have been proven to play an important role as well (McKenna & Davis, 2009; Grant, 2014; Segers & Vloeberghs, 2009). However, McKenna and Davis (2009) speculate that it can be the way the coach uses the theories and techniques rather than the theories or techniques per se.

### **Home assignments, Role-playing, and Positive feedback**

Studies indicate that theory and technique play an important role in coaching (Grant, 2014; Segers & Vloeberghs, 2009; McKenna & Davis, 2009), maybe even more than in therapy (Segers & Vloeberghs, 2009). Therefore, we chose to investigate whether three interventions that have support in psychotherapy and coaching research can explain the variation in the impact of BEC on leadership performance (Grill et al., manuscript). The interventions examined in the present study are home assignments (Robinson, 2008; Kazantziz et al., 2018; Lam, 1996), role-playing (Segrin, 2008; Pugh & Margetts, 2020; Terblanche, 2020; Bennett-Levy, McManus, Westling & Fennell, 2009; Duckworth, 2008) and positive feedback (Hattie & Timperley, 2007; Rekalde et al., 2015; Kluger & DeNisi, 1996; Wisniewski, Zierer & Hattie, 2020).

**Home assignments.** Home assignments can be seen as the outward focus of the CBT-approach and has been listed as one of the guiding principles of CBT (Lam, 1996). It has been described as the most universal behavioral intervention (Robinson, 2008), with the most potential to pay off, as the manager gets the opportunity to apply new skills in real life (Segrin, 2008). Empirical research shows that the compliance to carry out home assignments as part of treatment and correlates with reduced symptoms (Robinson, 2008). A meta-analysis examining active processes in CBT shows that the completion and implementation of home assignments is a strong predictor for treatment outcomes (Kazantziz et al., 2018).

*Hypothesis 1: Home assignments in behavioral executive coaching improve managers' leadership performance.*

**Role-playing.** Role-playing interventions aim to practice specific behaviors in a controlled environment where observation, feedback, and support can be offered, making it a potentially very effective method (Segrin, 2008). Interpersonal difficulties or areas of development can thus be mimicked in a role-play in order to observe them more clearly (Duckworth, 2008). Action-based methods such as role-playing creates a bridge between declarative knowledge (“I will do this”) and procedural knowledge (“This is how I do it”) (Pugh & Margetts, 2020; Terblanche, 2020). By using active and experimental methods, the manager gets a better understanding of the insights achieved by the reflective process (Terblanche, 2020). Bennett-Levy et al (2009) shows in their study that role-playing is the intervention most strongly associated with procedural learning in executive coaching, specifically for technical and interpersonal skills.

Observation techniques such as recording exercises are of great importance to increase the reflection ability of the manager and the coaches' ability for accurate feedback. Although there is much research supporting observation techniques, this is a method that is rarely used. Observational techniques provide the ability to watch the video recording several times as well as an accurate observation of the learning situation, optimizing the chances of successful self-reflections, accurate feedback, and planning for future interventions (Gonsalvez, Brockman & Hill, 2016). In this way, the failures that occur can be used to draw attention to what went wrong and how this can be improved (Segrin, 2008).

*Hypothesis 2: Role-playing in behavioral executive coaching improves managers' leadership performance.*

**Positive feedback.** An important part of most executive coaching interventions is frequent feedback (Ducharme, 2004; Rekalde et al., 2015; Gregory et al., 2011). However, Kluger and DeNisi (1996) claims that the coach should be mindful of the type of feedback that the manager is receiving. Their meta-analysis shows that feedback can decrease task performance if it is directed toward the manager rather than directed on the task. They explain that feedback directed toward a person tends to draw the attention away from task-oriented goals and toward self-goals. Therefore, coaches should give feedback carefully by choosing words and specificity that increases motivation and behavioral change (Kluger & DeNisi, 1996).

According to the theory of operant conditioning, the feedback we receive has a powerful impact on how we behave (Komaki, 2015). Rekalde et al. (2015) shows in their study that the coaches' ability to provide accurate feedback to the manager is one of the factors with the greatest impact on executive coaching. The principle of positive reinforcement deals with what happens after a behavior, i.e., the consequences. When receiving positive feedback (a positive consequence after a behaviour) the probability that the behavior will occur again increases (Komaki, 2015). However, for feedback to be effective, it should be linked directly to specific competencies, to observed behavior, and given in a timely manner (Hattie & Timperley, 2007). Simpler forms of feedback have an effect, but it has been shown that the more information the feedback contains, the more effective will it be (Wisniewski et al., 2020).

*Hypothesis 3: Positive feedback in behavioral executive coaching improves managers' leadership performance.*

## **Method**

The data used in this study was collected within an ongoing research project on behavioral executive coaching (Grill et al., manuscript).

### **Participants**

The participants (see table 1) in the present study were the 25 managers in the intervention group in Grill et als' (manuscript) study. The managers were given coaching by five psychologists and thereby psychologist conducted coaching sessions with five managers each. Due to coding errors, five managers were excluded from the study (20%) which implied that all coaching sessions from one psychologist were excluded. The file names of these sessions were incorrectly coded, which implied that the file names could not be converted to survey responses from employees.

Table 1.

*Characteristics of the participating managers (n=20).*

|                               | M    | SD   | %  |
|-------------------------------|------|------|----|
| Age (years)                   | 47.5 | 5.5  |    |
| Managerial experience (years) | 8.2  | 7.0  |    |
| Employees                     | 14.6 | 11.0 |    |
| <i>Managerial level</i>       |      |      |    |
| Strategic manager             |      |      | 30 |
| Operative manager             |      |      | 70 |
| <i>Gender</i>                 |      |      |    |
| Men                           |      |      | 30 |
| Women                         |      |      | 70 |
| <i>Business area</i>          |      |      |    |
| Education                     |      |      | 30 |
| Care and nursing              |      |      | 10 |
| Culture and leisure           |      |      | 10 |
| Technical management          |      |      | 30 |
| Other                         |      |      | 20 |

*Level of education*

|                                  |    |
|----------------------------------|----|
| University up to three years     | 15 |
| University more than three years | 85 |

---

## **Measurements and procedure**

**Questionnaire (dependent variables).** The data was collected by Grill et al., (manuscript) using online questionnaires administered to the managers' employees (n=176) before and after the managers completed the executive coaching. To minimize biasing effects, employees did not receive any information about their managers' participation in the executive coaching (Grill et al., manuscript).

Each manager was rated on average by 6.7 (SD = 3.6) employees. Ratings were aggregated into average ratings for each manager (Grill et al., manuscript). Leadership performance was measured with three scales from Avolio & Bass (2004): employee satisfaction with leadership (two items), employee extra effort (three items), and leadership effectiveness (two items). An example item for employee satisfaction with leadership was: "works with other in a good way". For employee extra effort, an example item was: "makes others want to succeed in their work". Further, an example item for leadership effectiveness was: "performs effectively at work". The leadership effectiveness scale originally includes four items. However, due to the small sample size we had insufficient statistical power to include all four items and therefore we only included the first half of the scale (i.e., the first two items).

A seven-point likert scale ranging from (1) Never to (7) Always was used. The internal consistency was measured using Cronbach's alpha. Cronbach's alpha at pre-measurement for leadership effectiveness was measured to .92, for employee satisfaction with leadership .90 and for employee extra effort .93. Post-measurements of Cronbach's alpha for leadership effectiveness was measured to .97, for employee satisfaction with leadership .78, and for employee extra effort .95. Descriptive statistics for each dependent variable are presented in table 2.

**Observations (independent variables).** The occurrence of home assignments, role-playing, and positive feedback in the coaching sessions were quantified by the first and second author, by observing video recordings of the sessions. Observations, compared to interviews and surveys, provide more reliable information about what is observed and greater precision in terms of frequency (Komaki, 2015). According to Komaki (2015), if you want to know what a leader does (in this case what a coach does), you know it best by observing rather than relying on their own perception. The purpose with the observation was to count the occurrence and frequency of three selected coaching interventions to be able to investigate whether the presence of these predicted an increase in leadership performance between the pre- and post-questionnaire measure. Thus, the data were collected with a standardized approach and then analyzed quantitatively.

Each coaching session lasted for about an hour and a half and all managers conducted five or six sessions. As the first sessions in the executive coaching was more of an assessment (Grill et al., manuscript), home assignments were not part of the agenda. Therefore, all first sessions were excluded from the quantification (13,5%). Beyond this, ten sessions were excluded due to video recording problems (7%) and two managers only had five coaching sessions. Therefore, a total of forty sessions were excluded from the quantification (27%). Hence, 88 video sessions were observed.



A structured observation method was used, adapted from the OSTI model (Komaki, 2015). Predetermined rules were formulated for the observation and registration of behaviors. The three interventions home assignments, role-playing, and positive feedback were defined and scored using a coding scheme for quantification (see appendix 1). One point was registered if the home assignment had been carried out properly. If the home assignment had not been completed at all or not in accordance with the instructions, zero points were registered. Further, one point was registered for each completed role-play and two points for each role-play that was also recorded and observed afterwards, while zero points were registered if the coach and manager did not use the intervention role-playing. Regarding the intervention positive feedback, one point was registered for each time the coach gave the manager positive feedback linked to a specific behavior and two points were registered if the feedback also contained information about the consequences of the behavior. Further, zero points were registered if it was a simpler form of positive reinforcement, such as saying “good”, without being directly linked to a desired behavior.

Initially, we quantified one session together to ensure that the definitions worked and that we assessed equally. Next, we quantified the same three coaching sessions in order to measure the inter-rater reliability, which refers to the degree of consistency between the two observers (Shweta, Bajpai & Chaturvedi, 2015). Using Cronbach's alpha, the overall inter-rater reliability between the two raters was measured to .83. The inter-rater reliability for both role-playing and home assignments were 1. The inter-rater reliability for positive feedback was .50. To increase the inter-rater reliability, we discussed what could have contributed to the difference in scoring positive feedback. The discussion made us aware of a difference concerning the coach giving positive feedback linked to a specific behavior more than once, and whether this should be scored one or several times. We decided to score positive feedback every time it appeared - even though it may be linked to the same behavior several times. Subsequently, both of us quantified three more sessions and measured the inter-rater reliability once again. The inter-rater reliability for positive feedback was then measured to .75. For home assignments and role-playing, it was again measured to 1. Thus, the overall inter-rater reliability was measured to .92. Next, the first and second author observed half of the remaining sessions, which were administered randomly.

Since the managers had different numbers of sessions and some sessions were excluded due to technical issues, means for each intervention was calculated. The total score for each intervention was divided by the number of sessions that each manager had completed. This resulted in an average value for home assignments, role-playing, and positive feedback per session. The results are therefore based on these values.

Descriptive statistics for each independent variable are presented in table 2. As can be seen, the skewness value for role-playing shows a positively skewed distribution. The results of analyzes with this variable can thus be misleading and should therefore be interpreted carefully.

Table 2.

*Descriptive statistics for all study variables.*

|   | Mean | Median | SD   | Min  | Max   | Skewness |
|---|------|--------|------|------|-------|----------|
| Dependent variables                                       |      |        |      |      |       |          |
| Employee satisfaction with leadership at pre-measurement  | 5.78 | 5.83   | .68  | 4.50 | 7.00  | -.14     |
| Leadership effectiveness at pre-measurement               | 5.56 | 5.63   | .62  | 4.31 | 6.75  | -.31     |
| Employee extra effort at pre-measurement                  | 5.14 | 5.08   | .59  | 4.08 | 6.67  | .65      |
| Employee satisfaction with leadership at post-measurement | 5.90 | 6.03   | .54  | 4.88 | 6.92  | -.21     |
| Leadership effectiveness at post-measurement              | 5.64 | 5.69   | .62  | 4.50 | 6.75  | -.18     |
| Employee extra effort at post-measurement                 | 5.27 | 5.22   | .63  | 4.33 | 6.67  | .34      |
| Independent variables                                     |      |        |      |      |       |          |
| Home assignments  | .40  | .78    | .21  | .00  | 1.00  | .04      |
| Role-playing  | .42  | .10    | .67  | .00  | 2.40  | 2.17     |
| Positive feedback   | 6.77 | 6.90   | 3.21 | .75  | 11.80 | -.39     |

## Data analysis

Structural Equation Modeling (SEM) with AMOS 27 was used for the data analysis. Primarily, we chose to use SEM since it has the ability to correct for measurement errors. The sample size in this study was quite small, but according to Tanaka (1987) the appropriateness of sample size depends on the number of parameters to be estimated. Since we had quite few parameters to be estimated in the SEM-models, we considered it an appropriate method to use. Nine separate SEM models were estimated (see Figure 1 and 2). In each SEM model, the effect was evaluated in terms of the estimated regression weight of the independent variable (i.e., home assignments, role-

playing, and positive feedback) on the dependent variable at post-measure (i.e., leadership effectiveness, employee extra effort, and satisfaction with leadership).

Pre-measurements of the dependent variables were used as a control variable to correct for the autoregressive effect in the dependent variables. This was done in order to reduce measurement errors and their biasing effects (Djurfeldt & Barmark, 2009). The effect sizes were calculated in accordance with Breitsohl (2019) by dividing the unstandardized regression weights by the square root of the variance (i.e., the standard deviation) in the dependent variable at pre-measurements. The effect sizes were then interpreted as values of Cohen's *d*: small (.20), medium (.50) and large (.80) (Breitsohl, 2019; Cohen, 1992).

Measures of fit were calculated which is an important component of SEM modeling. Goodness of fit refers to the degree of congruence between a designed model and the data (Djurfeldt & Barmark, 2009). In this study, we chose to examine three of the most commonly used fit indexes: Chi-Square, Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). Acceptable thresholds for the fit indices are CFI >.95, RMSEA <.07 (Steiger, 2007) and a low Chi-Square relative to the degrees of freedom with a *p* value of *p*>.05. Even though there is no consensus regarding an acceptable value for the Chi-Square relative to the degrees of freedom, there are recommendations from 5.0 to 2.0 (Hooper, Coughlan & Mullen, 2008).

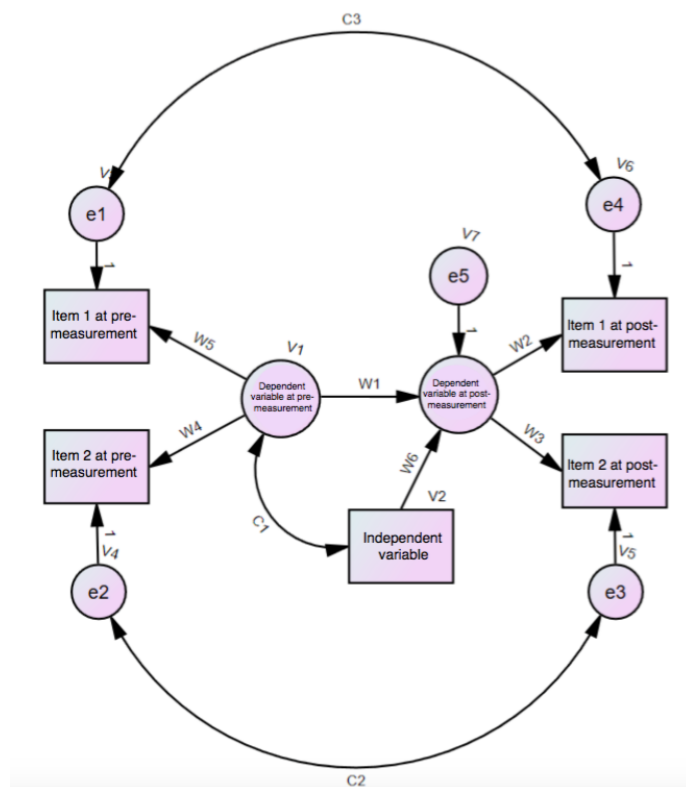


Figure 1.

*The SEM-model for the dependent variables employee satisfaction with leadership and leadership effectiveness.*

*Note: W=regression weights, v=variances, C=covariances and e=errors of measurement).*

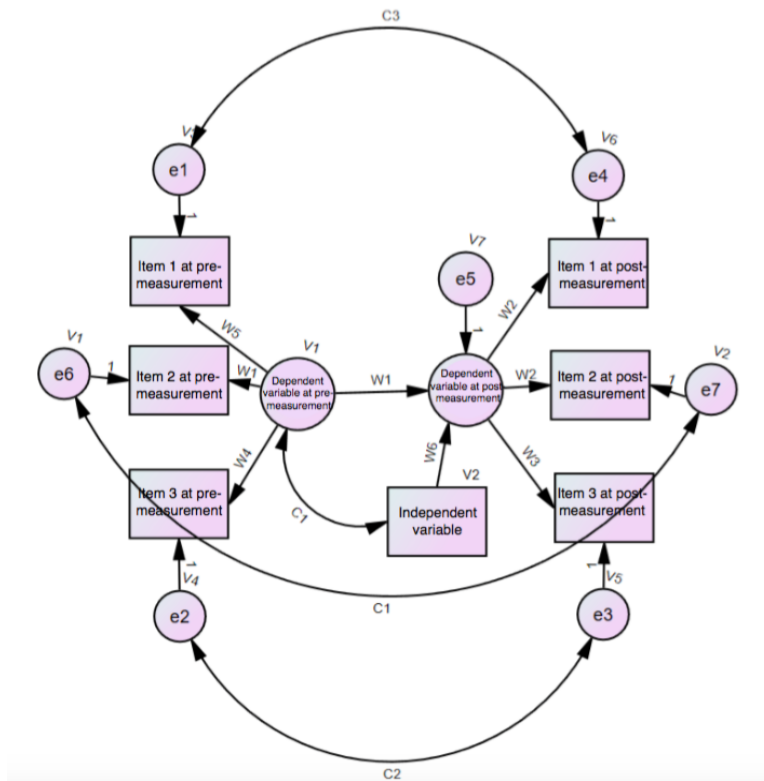


Figure 2.

*The SEM-model for the dependent variable employee extra effort.*

*Note: W=regression weights, v=variances, C=covariances and e=errors of measurement).*

## Ethical considerations

Due to the sensitivity of the data, observations took place in a research ward at the Institution of Psychology at the University of Gothenburg. The video sessions were deleted from the computer after each observation.

## Results

The purpose of the present study was to examine whether home assignments, role-playing, and positive feedback in behavioral executive coaching improve managers' leadership performance in terms of employee satisfaction with leadership, leadership effectiveness, and employee extra effort. Table 3 shows inter-correlations for all study variables.

Table 3.

*Spearman's Rho inter-correlations for all study variables, including delta-variables for the dependent variables (i.e., the difference between pre- and post-measures).*

|  | 1      | 2     | 3     | 4     | 5     | 6    | 7      | 8     | 9     | 10   | 11   |
|--|--------|-------|-------|-------|-------|------|--------|-------|-------|------|------|
| 1. Employee satisfaction with leadership at pre-measurement  |        |       |       |       |       |      |        |       |       |      |      |
| 2. Leadership effectiveness at pre-measurement               | .85**  |       |       |       |       |      |        |       |       |      |      |
| 3. Employee extra effort at pre-measurement                  | .78**  | .89** |       |       |       |      |        |       |       |      |      |
| 4. Employee satisfaction with leadership at post-measurement | .78**  | .70** | .60** |       |       |      |        |       |       |      |      |
| 5. Leadership effectiveness at post-measurement              | .73**  | .82** | .74** | .84** |       |      |        |       |       |      |      |
| 6. Employee extra effort at post-measurement                 | .69**  | .66** | .57** | .84** | .65** |      |        |       |       |      |      |
| 7. Employee satisfaction with leadership Delta               | -.58** | -.48* | -.50* | .02   | -.12  | -.12 |        |       |       |      |      |
| 8. Leadership effectiveness Delta                            | -.16   | -.16  | -.14  | .34   | .39   | .12  | -.70** |       |       |      |      |
| 9. Employee extra effort Delta                               | -.10   | -.06  | -.22  | .47*  | .29   | .55* | -.35   | .47   |       |      |      |
| 10. Home assignments   | -.03   | .14   | .20   | -.16  | .08   | -.12 | -.24   | -.12  | -.30  |      |      |
| 11. Role-play  | .19    | .05   | .06   | -.15  | -.05  | -.18 | -.52*  | -.41^ | -.45* | -.02 |      |
| 12. Positive feedback  | .63**  | .35   | .44   | .39   | .38   | .20  | -.42^  | -.03  | -.17  | .01  | .40^ |

Notes:  $n = 20$ . \*\*  $p < .01$ , \*  $p < .05$ , ^  $p < .10$ .

Our first hypothesis was that home assignments in behavioral executive coaching improve managers' leadership performance. According to the results outlined in Table 4, the data did not support hypothesis 1, since no statistical significance was reached ( $p > .10$ ) for either employee satisfaction with leadership, leadership effectiveness or employee extra effort. The goodness of fit of the SEM-models testing the effect of employee satisfaction with leadership and leadership effectiveness was good. However, the model testing the effect of Employee extra effort had an insufficient fit to data ( $RMSEA = .169$ ), implying that the parameters estimated in that model should be interpreted with caution.

Table 4.

*SEM models testing the effect of home assignments on leadership performance (i.e., fit indices, regression weights, p-values, and effect sizes).*

|                                       | $\chi^2$ | Df | CFI  | RMSEA | Regression weight (B) | St. Error. | P-value | Effect size (B/SD at T1) |
|---------------------------------------|----------|----|------|-------|-----------------------|------------|---------|--------------------------|
| Employee satisfaction with leadership | .000     | 1  | 1.00 | .000  | -.71                  | .504       | .162    | -.95                     |
| Leadership effectiveness              | .113     | 1  | 1.00 | .000  | -.38                  | .326       | .244    | -.48                     |
| Employee extra effort                 | 21.573   | 14 | 0.94 | .169  | -.40                  | .479       | .400    | -.96                     |

Notes:  $n = 20$ . \*\*  $p < .01$ , \*  $p < .05$ , ^  $p < .10$ .

Second, we hypothesized that role-playing in behavioral executive coaching improves managers' leadership performance. As can be seen in table 5, the data did not support hypothesis 2, since no statistical significance was reached ( $p > .10$ ) for either employee satisfaction with leadership, leadership effectiveness or employee extra effort. The goodness of fit of the SEM-models testing the effect of the dependent variables had a sufficient fit to data, indicating that the data fits the models.

Table 5.

*Results of the SEM models for the independent variable role-playing (i.e., fit indices, regression weights, p-values, and effect sizes).*

|                                       | $\chi^2$ | Df | CFI  | RMSEA | Regression weight (B) | St. Error. | P-value | Effect size (B/SD at T1) |
|---------------------------------------|----------|----|------|-------|-----------------------|------------|---------|--------------------------|
| Employee satisfaction with leadership | .211     | 1  | 1.00 | .000  | -.18                  | .132       | .179    | -.35                     |
| Leadership effectiveness              | .229     | 1  | 1.00 | .000  | .09                   | .098       | .348    | .07                      |
| Employees extra effort                | 11.095   | 14 | 1.00 | .000  | -.17                  | .146       | .242    | -.41                     |

Notes:  $n = 20$ . \*\*  $p < .01$ , \*  $p < .05$ , ^  $p < .10$ .

Third, we hypothesized that positive feedback in behavioral executive coaching improves managers' leadership performance. As table 6 shows, the data did not support hypothesis 3, since no statistical significance was reached ( $p > .10$ ) for either employee satisfaction with leadership, leadership effectiveness or employee extra effort. Further, the models testing the effect of employee satisfaction with leadership and employee extra effort, the goodness of fit was good, indicating that the data fits the models. However, the model testing the effect of leadership effectiveness had an insufficient fit to data ( $RMSEA = .351$ ), which implies that the parameters estimated in this model should be interpreted with caution.

Table 6.

*Results of the SEM models for the independent variable positive feedback (i.e., fit indices, regression weights, p-values, and effect sizes).*

|                                       | $\chi^2$ | Df | CFI  | RMSEA | Regression weight (B) | St. Error. | P-value | Effect size (B/SD at T1) |
|---------------------------------------|----------|----|------|-------|-----------------------|------------|---------|--------------------------|
| Employee satisfaction with leadership | .465     | 1  | 1.00 | .000  | -.01                  | .036       | .834    | -.01                     |
| Leadership effectiveness              | 3.340    | 1  | .98  | .351  | .03                   | .021       | .151    | .04                      |
| Employee extra effort                 | 14.708   | 14 | .99  | .052  | -.04                  | .031       | .165    | -.10                     |

Notes:  $n = 20$ . \*\*  $p < .01$ , \*  $p < .05$ , ^  $p < .10$ .

## Discussion

It is important to investigate and identify the factors that have an important impact on the efficacy of executive coaching. Both coaches and companies that invest in management development programs need to know which are the main factors that contribute to successful coaching for managers. An increased understanding of these factors would enable them to pay more attention and put more resources to the specific interventions and aspects of coaching that are most relevant (de Haan et al., 2013).

The purpose of the present study was to examine whether home assignments, role-playing, and positive feedback in behavioral executive coaching improve managers' leadership performance. We hypothesized that these three interventions improve leadership performance among managers in terms of employee satisfaction with leadership, leadership effectiveness and employee extra effort. These hypotheses were not supported despite the fact that the interventions have support in previous CBT research (Robinson, 2008; Segrin, 2008; Duckworth, 2008; Kazantziz et al., 2018), and in research on coaching (Lam, 1996; Pugh & Margetts, 2020; Terblanche, 2020; Bennett-Levy et al., 2009; Hattie & Timperley, 2007; Rekalde et al., 2015; Kluger & DeNisi, 1996; Wisniewski et al., 2020). Since the results did not reach significance ( $p > .05$ ), it is difficult to make any conclusions about the importance of these interventions in executive coaching. Although, according to Falk (1986), the meaning of significant results and their value should be reevaluated. Significant results do not provide measures of the impact, nor how scientifically important the results are. Therefore, despite nonsignificant results, we argue that some of the results in the present study are still interesting findings. Below, each of the interventions and their results are discussed separately. Thereafter, more general factors that may have affected all results are discussed.

Surprisingly, with regard to previous research on home assignments (Robinson, 2008; Kazantziz et al., 2018; Lam, 1996), parts of the results showed large negative effects. The large negative effects did however arise questions about what these results implied. There may be several reasons, where one possible explanation could be that we solely chose to quantify the frequency of implemented home assignments and for example not the quality. Previous research emphasizes the importance of high quality in home assignments, for example its specificity and explicitness. If a home assignment is not specific enough or if the person does not understand exactly why it should be done, the intervention may become ineffective. Another important part of the intervention is its relevance to the client's (in this case managers) goal and the home assignments planned potential positive reinforcers (Robinson, 2008). If the home assignment is irrelevant in relation to the manager's goal, it could be a possible explanation for why home assignments show negative effects. Another possible explanation for the large negative effects on employee satisfaction with leadership could be that completed home assignments does not itself make employees' more satisfied with their managers. For example, if the purpose of the home assignment is to practice giving corrective feedback, it might not increase employees' satisfaction with leadership. One can imagine that receiving corrective feedback in the short term can be interpreted as a negative change.

Quite surprisingly, given previous research (Duckworth, 2008; Pugh & Margetts, 2020; Terblanche, 2020; Segrin, 2008; Gonsalvez et al., 2016), parts of the results for the intervention role-playing showed small negative effects. A possible explanation could be that the coach and manager did not role-play sufficiently, nor did they watch the



recordings enough times. Gonsalvez et al (2016) means that observational techniques provide the ability to watch the video recording several times to optimize the chances of successful self-reflections, accurate feedback, and planning for future interventions. Certain sessions only contained one role-play, and at most one observation afterwards, which may have contributed to limited skills. This could in turn have led to difficulties in implementing the new behavior. Additional role-playing of a specific behavior, and several observations of the video recording, might have contributed to the manager feeling more comfortable implementing the new behavior.

The intervention positive feedback showed no effects for either of the dependent variables, although it is an intervention with strong support in research (Ducharme, 2004; Rekalde et al., 2015; Gregory et al., 2011). The two definitions of positive feedback that were used during the observations could have an impact on the results. Previous research shows that the more information the feedback contains, the more effective it is (Wisniewski et al., 2020). The definitions of positive feedback used in this study assumed that the feedback would contain information about what was good or the consequences of the observed behavior which is in line with previous research. However, according to Hattie and Timperley (2007), feedback should be given directly after a behavior has occurred to be most effective. In addition, it is important that the feedback is task- rather than person-oriented (Kluger & DeNisi, 1996). Factors such as timing and type of feedback, however, were not observed.

It could also be other interventions used during the coaching sessions that were more effective than those we chose to observe. For example, functional behavior analysis, which is the principal component in BEC, were used frequently (Grill et al., manuscript). Another intervention with strong support in research is goal clarity, which implies to identify clear goals to be able to improve performance (Grant 2012; 2014; Kilburg, 1996). The interventions we chose to observe are maybe not bad in themselves, but it could be that other interventions that were used in the executive coaching were more effective which may explain the unexpected results.

There are also general factors which were not observed in this study that could have an impact on the development of the participating managers. Some important factors are the characteristics of the coach and the manager and also the coaching relationship (Rekalde et al., 2015; McKenna & Davis, 2009). Factors such as trust, commitment, coaching motivation, expectations, support from the coach, self-efficacy are all factors that contribute to successful coaching (Bozer and Jones, 2018). Other active ingredients when it comes to the relationship between the coach and manager are good chemistry with the coach, confidentiality, and coach availability (Wasylyshyn, 2003). These are all factors that we did not choose to observe which may be other ingredients in the coaching situation that are at least as important as specific interventions, if not more important.

The literature on the how in coaching is in summary an area of many unanswered questions and with a lot of contradictions (Terblanche, 2020). Studies both show that specific interventions are important in coaching while other studies focus more on the coaching relationship. It seems important in order to improve coaching efficacy, to get a better understanding of how to apply coaching in different contexts. With that said, coaching is a complex process where it can be seen as an oversimplification to look at coaching techniques in isolation.

## Limitations

As previously mentioned, coaching is a non-linear process where the coach in reality may use a combination of techniques. Therefore, it could be important to view the techniques as a number of contributing factors that together can lead to effective coaching. With this in mind, a limitation in this study was that we investigated whether specific interventions in isolation could explain why some managers developed more than others. To examine combinations of interventions or techniques, a larger sample size had been required.

Although the managers' improvements in leadership performance (Grill et al., manuscript) were significant, the improvements were small. With this in mind, it becomes difficult to relate small improvements to our independent variables. Further, since the sample size in the present study was quite small, it makes it even more difficult to explain why some managers improved more than others. These factors may lead to difficulties in making any conclusions about the effects and clinical value of the three interventions examined in the present study.

In this study we used parametric statistics, assuming normal distribution of data and even distribution of errors. Such assumptions are easily violated in small samples such as ours. In fact, one of our independent variables was not normally distributed. Hence, non-parametric statistics would perhaps have been more suitable. However, we double-checked our results by testing Spearman's bivariate correlations between the independent variables and the change in the dependent variables between pre-measurement and post-measurement (i.e., the delta-variables). These non-parametric correlations show the same overall results as the parametric data analyses. Hence, we deem our results as sound.

The development of the managers was estimated using questionnaires. Since no clear and agreed definition of how "outcomes" should be measured has emerged (Grant, 2014), one can imagine a limitation in terms of validity in this study. There is a skepticism about the use of questionnaires when looking at individuals' perceptions of someone else's improvements, since it does not always correlate with the actual improvement (Komaki, 2015). It might be that questionnaires could be a more useful method when looking at managers own perception of their work or improvements. A possible solution could also be to use specific measures such as goal achievement.

A further limitation that deserves to be mentioned is our limited experience when it comes to observations. Observations require a lot of experience and training (Shweta et al., 2015; Eklöf, 2017) and regarding the observation of positive feedback, we noticed that it was difficult to quantify the frequency of its presence. Positive feedback was the intervention that was perceived as the most difficult to quantify since it had more possibilities for interpretation than the other two interventions. Although the inter-rater reliability was quite high ( $\alpha=.75$ ), it was the intervention that probably differed the most due to its interpretability. It may be worth bearing in mind that this in itself may have affected the results, such as the difficulty in determining whether the positive feedback should be registered as one or two points. That is to say, the difficulty in determining whether the positive feedback was solely linked to a specific behavior, or whether it also contained information about the consequences of the behavior.

## Future research

There is a need for more research in the field of executive coaching as the lack of research creates obstacles in the development of coaching as a profession (Passmore & Fillery-Travis, 2011). Investigating active ingredients is of great importance for the future of coaching. For example, more research is needed regarding how the coach should act to improve the manager's abilities and how these abilities can then be applied in the function (Bono, Purvanova, Towler & Peterson, 2009). Based on the present study, it would be interesting to investigate whether home assignments, role-playing, and positive feedback improve leadership performance with a larger sample of managers, that is to say with a higher statistical power. Another suggestion for future research is to examine these interventions with adjusted definitions, since previous research emphasizes the importance of for example high quality in home assignments. Since coaching is a complex process with many different techniques and interventions, future research would also benefit from investigating interventions in combination, rather than examining them individually.

## Conclusion

This study was an attempt to examine three interventions and their impact on leadership performance in executive coaching. Since the results did not reach statistical significance, no conclusions could be made whether home assignments, role-playing or positive feedback can predict improved leadership performance in executive coaching. It is difficult to conduct research on specific mechanisms since executive coaching can contain a variety of active ingredients that are difficult to examine separately. At last, it is important to have empirical support for the choices that are made in the context of coaching. Therefore, we believe BEC is a step forward in the development of evidence-based coaching.

## References

- Avolio, B. J., & Bass, B. M. (2004). Multifactor Leadership Questionnaire. Manual and Sampler Set (3rd ed.). Redwood City, CA: Mindgarden.  
[http://dx.doi.org/10.1207/s1532754xjpr1602\\_2](http://dx.doi.org/10.1207/s1532754xjpr1602_2)
- Bennett-Levy, J., McManus, F., Westling, B. E., & Fennell, M. (2009). Acquiring and refining CBT skills and competencies: Which training methods are perceived to be most effective? *Behavioural and Cognitive Psychotherapy*, 37(5), 571-583.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1017/S1352465809990270>
- Bono, J. E., Purvanova, R. K., Towler, A. J., & Peterson, D. B. (2009). A survey of executive coaching practices. *Personnel Psychology*, 62(2), 361-404.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1111/j.1744-6570.2009.01142.x>
- Bozer, G., & Jones, R. J. (2018). Understanding the factors that determine workplace coaching effectiveness: A systematic literature review. *European Journal of*

- Work and Organizational Psychology*, 27, 342– 361. doi:<https://doi.org.ezproxy.ub.gu.se/10.1080/1359432X.2018.1446946>
- Breitsohl, H. (2019). Beyond ANOVA: An introduction to structural equation models for experimental designs. *Organizational research methods*, 22(3), 649-677. doi:<https://doi.org/10.1177/1094428118754988>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/0033-2909.112.1.155>
- de Haan, E. (2008). Relational coaching: Journeys towards mastering one-to-one learning. Chichester, UK: Wiley.
- de Haan, E., Bertie, C., Day, A., & Sills, C. (2010). Clients' critical moments of coaching: Toward a “client model” of executive coaching. *Academy of Management Learning & Education*, 9, 607– 621. doi:<https://doi.org/10.5465/amle.9.4.zqr607>
- de Haan, E., Duckworth, A., Birch, D., & Jones, C. (2013). Executive coaching outcome research: The contribution of common factors such as relationship, personality match, and self-efficacy. *Consulting Psychology Journal: Practice and Research*, 65(1), 40-57. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/a0031635>
- de Haan, E., Grant, A. M., Burger, Y., & Eriksson, P. (2016). A large-scale study of executive and workplace coaching: The relative contributions of relationship, personality match, and self-efficacy. *Consulting Psychology Journal: Practice and Research*, 68(3), 189-207. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/cpb0000058>
- Djurfeldt, G., & Barmark, M. (2009). *Statistisk verktygslåda 2 - multivariat analys*. Studentlitteratur.
- Ducharme, M. J. (2004). The cognitive-behavioral approach to executive coaching. *Consulting Psychology Journal: Practice and Research*, 56(4), 214-224. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1065-9293.56.4.214>
- Duckworth, M. (2008). Assertiveness skills and the management of related factors. In W. O’Donohue, J. Fisher (Eds.), *Cognitive behavior therapy applying empirically supported techniques in your practice (26-34)*. Hoboken, N.J.: John Wiley & Sons.
- Eklöf, M. (2017). *Psykosocial arbetsmiljö: begrepp, bedömning och utveckling (1 uppl.)*. Studentlitteratur.
- Falk, R. (1986). Misconceptions of statistical significance. *Journal of Structural Learning*, 9(1), 83-96. Retrieved from <https://search-proquest-com.ezproxy.ub.gu.se/scholarly-journals/misconceptions-statistical-significance/docview/619228552/se-2?accountid=11162>
- Gonsalvez, C. J., Brockman, R., & Hill, H. R. M. (2016). Video feedback in CBT supervision: Review and illustration of two specific techniques. *The Cognitive Behaviour Therapist*, 9, 15. Retrieved from: <https://search-proquest-com.ezproxy.ub.gu.se/scholarly-journals/video-feedback-cbt-supervision-review/docview/1857841297/se-2?accountid=11162>
- Grant, A. M. (2012). Making positive change: A randomized study comparing solution-focused vs. problem-focused coaching questions. *Journal of Systemic Therapies*, 31(2), 21-35. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1521/jsyt.2012.31.2.21>
- Grant, A. M. (2014). Autonomy support, relationship satisfaction and goal focus in the coach–coachee relationship: Which best predicts coaching success? *Coaching:*

- An International Journal of Theory, Research and Practice*, 7(1), 18-38.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1080/17521882.2013.850106>
- Grant, A. M. (2008). Past, present and future: The evolution of professional coaching and coaching psychology. In S. Palmer, & A. Whybrow (Eds.), *Handbook of coaching psychology: A guide for practitioners; handbook of coaching psychology: A guide for practitioners* (pp. 23-39). *Routledge/Taylor & Francis Group, New York, NY*. Retrieved from <https://search-proquest-com.ezproxy.ub.gu.se/books/past-present-future-evolution-professional/docview/621959190/se-2?accountid=11162>
- Grant, A. M. (2016). What constitutes evidence-based coaching? A two-by-two framework for distinguishing strong from weak evidence for coaching. *International Journal of Evidence Based Coaching and Mentoring*, 14(1), 74-85. Retrieved from <https://search-proquest-com.ezproxy.ub.gu.se/scholarly-journals/what-constitutes-evidence-based-coaching-two/docview/1892466363/se-2?accountid=11162>
- Grill, M., Poussette, A., Bjornsdotter, A. (manuscript). Behavioural executive coaching: a randomized controlled trial. *Journal of Occupational and Organizational psychology*.
- Gregory, J. B., Beck, J. W., & Carr, A. E. (2011). Goals, feedback, and self-regulation: Control theory as a natural framework for executive coaching. *Consulting Psychology Journal: Practice and Research*, 63(1), 26-38.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/a0023398>
- Gyllensten, K., Beskow, P., A., Palmer, S., (2011) *Psykologisk coaching - för varaktig förändring*. 1:a utgåva. Natur & Kultur, Stockholm.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112. doi:<https://doi.org/10.3102/003465430298487>
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*. 6(1), 53-60. doi: 10.21427/D7CF7R
- Joo, B. (. (2005). Executive coaching: A conceptual framework from an integrative review of practice and research. *Human Resource Development Review*, 4(4), 462-488. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1177/1534484305280866>
- Katz, J. H., & Miller, F. A. (1996). Coaching leaders through culture change. *Consulting Psychology Journal: Practice and Research*, 48(2), 104-114.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1061-4087.48.2.104>
- Kazantzis, N., Luong, H. K., Usatoff, A. S., Impala, T., Yew, R. Y., & Hofmann, S. G. (2018). The processes of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research*, 42(4), 349-357.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1007/s10608-018-9920-y>
- Kilburg, R.R. (1996), “Toward a conceptual understanding and definition of executive coaching”, *Consulting Psychology Journal: Practice and Research*, 48 (2), 134-144. doi:<https://doi.org/10.1037/11570-001>
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review: A meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254 –284. doi:10.1037/0033-2909.119.2.254
- Komaki, J. L. (2015). *Leadership from an operant perspective*. Routledge.

- Kåver, A. (2016). *KBT i utveckling : En grundbok i kognitiv beteendeterapi* (2., uppdaterade utg. ed.).
- Lam, D. (1996). Cognitive therapy in action: A practitioner's casebook: I. A. Blackburn and V. Twaddle: Souvenir Press, London (1966). *Behaviour Research and Therapy*, 34(11), 967.
- McKenna, D. D., & Davis, S. L. (2009). What is the active ingredients equation for success in executive coaching? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 2(3), 297-304.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1111/j.1754-9434.2009.01153.x>
- Passmore, J., & 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), 70-88.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1080/17521882.2011.596484>
- Pousette, Björnsdotter, Grill (manuscript). Behavior executive coaching: A process evaluation study.
- Pugh, M., & Margetts, A. (2020). Are you sitting (un)comfortably? Action-based supervision and supervisory drift. *The Cognitive Behaviour Therapist*, 13, 19.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1017/S1754470X20000185>
- Ratiu, L., David, O. A., & Baban, A. (2016). Developing managerial skills through coaching: Efficacy of a cognitive-behavioral coaching program. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 34(4), 244-266.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1007/s10942-016-0256-9>
- Rekalde, I., Landeta, J., & Albizu, E. (2015). Determining factors in the effectiveness of executive coaching as a management development tool. *Management Decision*, 53(8), 1677-1697. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1108/MD-12-2014-0666>
- Richard, J. T. (1999). Multimodal therapy: useful model for the executive coach1RW1S34RfeSDfkd09rT2. *Consulting Psychology Journal: Practice and Research*, 51(1), 24-30.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1061-4087.51.1.24>
- Robinson, P. (2008). Putting it on the street: Homework in cognitive behavioral therapy. In W. O'Donohue, J. Fisher (Eds.), *Cognitive behavior therapy applying empirically supported techniques in your practice* (260-271). Hoboken, N.J.: John Wiley & Sons.
- Segers, J., & Vloeberghs, D. (2009). Do theory and techniques in executive coaching matter more than in therapy? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 2(3), 280-283.  
doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1111/j.1754-9434.2009.01149.x>
- Segrin, C. (2008). Social skills training. In W. O'Donohue, J. Fisher (Eds.), *Cognitive behavior therapy applying empirically supported techniques in your practice* (502-509). Hoboken, N.J.: John Wiley & Sons.
- Sherman, S., Freas, A. (2004). The wild west of executive coaching. *Harvard Business Review*, 82(11), 82-90. doi:<https://doi.org/info:doi/>
- Shoukry, H., & Cox, E. (2018). Coaching as a social process. *Management Learning*, 49(4), 413-428. doi:<https://doi-org.ezproxy.ub.gu.se/10.1177/1350507618762600>
- Shweta, Bajpai, R. C., & Chaturvedi, H. K. (2015). Evaluation of inter-rater agreement and inter-rater reliability for observational data: An overview of concepts and

- methods. *Journal of the Indian Academy of Applied Psychology*, 41(3), 20-27. Retrieved from <https://search-proquest-com.ezproxy.ub.gu.se/scholarly-journals/evaluation-inter-rater-agreement-reliability/docview/1732321705/se-2?accountid=11162>
- Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? *A systematic review of three decades of research. Work & Stress*, 24(2), 107-139. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1080/02678373.2010.495262>
- Spence, G. B., & Oades, L. G. (2011). Coaching with self-determination in mind: Using theory to advance evidence-based coaching practice. *International Journal of Evidence Based Coaching and Mentoring*, 9(2), 37-55. Retrieved from <https://search-proquest-com.ezproxy.ub.gu.se/scholarly-journals/coaching-with-self-determination-mind-using/docview/1011858572/se-2?accountid=11162>
- Sperry, L. (2008). Executive coaching: An intervention, role function, or profession? *Consulting Psychology Journal: Practice and Research*, 60(1), 33-37. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1065-9293.60.1.33>
- Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, 42(5), 893-898. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1016/j.paid.2006.09.017>
- Tanaka, J. S. (1987). "How big is big enough?": Sample size and goodness of fit in structural equation models with latent variables. *Child Development*, 58(1), 134-146. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.2307/1130296>
- Terblanche, N. (2020). Coaching techniques for sustained individual change during career transitions. *Human Resource Development Quarterly*, 32(1), 11-33. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1002/hrdq.21405>
- Theeboom, T., Beersma, B., & Van Vianen, A. (2014). Does coaching work? A meta-analysis on the effects of coaching on individual level outcomes in an organizational context. *The Journal of Positive Psychology*, 9(1), 1– 18. doi:<https://doi-org.ezproxy.ub.gu.se/10.1080/17439760.2013.837499>
- Theorell, T., Nyberg, A., & Romanowska, J. (2013). About leadership and employees health. *Socialmedicinsk Tidskrift*, 90(6), 780-92.
- van Dierendonck, D., Haynes, C., Borrill, C., & Stride, C. (2004). Leadership behavior and subordinate well-being. *Journal of Occupational Health Psychology*, 9(2), 165-175. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1076-8998.9.2.165>
- Wasylyshyn, K. M. (2003). Executive coaching: An outcome study. *Consulting Psychology Journal: Practice and Research*, 55(2), 94-106. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.1037/1061-4087.55.2.94>
- Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology*, 10, 14. doi:<http://dx.doi.org.ezproxy.ub.gu.se/10.3389/fpsyg.2019.03087>

## Appendix

**Appendix 1.** Coding scheme for quantification of the three interventions home assignments, role-playing and positive feedback.

---

| Session | Home assignment | Role-playing | Positive feedback |
|---------|-----------------|--------------|-------------------|
| 2.      |                 |              |                   |
| 3.      |                 |              |                   |
| 4.      |                 |              |                   |
| 5.      |                 |              |                   |
| 6.      |                 |              |                   |

---