Does coaching improve well-being?

Author
Manon van de Wiel
ANR 855107

Study
Human Resource
Studies

Faculty
School of Social and
Behavioral Studies

Supervisor
Drs. R.A. Waringa

Second assessor
Drs. A.P.C. Ribbers

Project period
February 2013 – December 2014

TILBURG ◆ UNIVERSITY

Understanding Society

ABSTRACT

The favorable results of coaching for individuals are becoming more commonly recognized and accepted. Therefore, an increasing number of people are voluntarily participating in coaching programs. Although many researchers have investigated the relationship between coaching and its outcomes, little is known about the influence of certain coaching conditions on this relationship. This semi-experimental, longitudinal intervention research investigated the level of well-being of people both before and after taking part in a coaching program. A second purpose of this research project was to examine whether coaching conditions (such as goals, relationship, motivation, expectations, and mindset), strengthen the relationship between coaching and well-being. The sample included an experimental group of 16 Dutch coachees and a control group of 16 Dutch non-coachees. The coaching was expected to have a positive effect on well-being, and the coaching conditions were expected to moderate the relationship between coaching and well-being in a strengthening manner. No evidence was found for a significant effect of the relationship between coaching and well-being. However, significant evidence was found for a change in the coachees' mindset scores during the coaching program. In addition, the coachees also moved in the direction of their personal goals and became more confident and independent in achieving them. More research and data are needed to enable conclusions to be drawn about the moderators; to this end, interesting suggestions for future research are provided.

Keywords: coaching, well-being, goals, relationship, motivation, expectations, mindset.

INTRODUCTION

The most valuable questions in life are very easy to ask and, at the same time, surprisingly difficult to answer. These include "Why did I do that?", "What did I mean by that?" and "What am I achieving here?". In the field of coaching, obvious but amazingly hard to answer questions are also common: "Does our coaching work?", "Does it help clients improve their well-being?", "What are the 'active ingredients'?" (De Haan, Duckworth, Birch & Jones, 2013). Many coaches who are curious about the effectiveness and outcomes of their work have asked themselves these questions. This research project is focused on the relationship between coaching and well-being and the effect that important coaching conditions have on this relationship.

The coaching profession has expanded and matured beyond all expectations (Whitmore, 2009). After emerging from the sports sector in the 1960s, coaching transferred to business throughout the 1970s and 1980s. It underwent a high degree of diversification and popularization in the 1990s, and today it is widely accepted and respected; indeed, it is now the most frequently used resource for personal development (Passmore, 2010). According to Poell and Van Woerkom (2011), coaching is "a helping and facilitative process that enables individuals to acquire new skills, to improve existing skills, competence and performance, and to enhance their personal effectiveness, or personal development, or personal growth" (p.73).

Multiple researchers have studied coaching and its individual outcome variables, including individual development, performance, motivation, job satisfaction and stress levels (Miles, Patrick & King, 1996; Green, Oades & Grant, 2006; Spence & Grant, 2007; Park, 2007; Wright, 2007). However, only a few studies have investigated well-being as a result of coaching (Green et al., 2006; Spence & Grant, 2007). This current research project is therefore focused on well-being as an outcome variable.

Green et al. (2006) argue that the effectiveness of coaching can be measured by the level of enhancement in well-being. Well-being is multi-dimensional and consists of both affective and cognitive components (Pavot & Diener, 2008). The affective component is the emotion that someone expresses or experiences; however, there will always be some form of cognition involved that determines which emotion is being felt (Arthaud-Day, Rode, Mooney & Near, 2004). The affective component of well-being is subdivided into positive and negative affective states. Positive affect measures the level of enthusiasm, alertness, and energy (Watson, Clark & Tellegen, 1988). High levels of positive affect mean that someone is experiencing satisfying engagement and is concentrated and energetic. In contrast, individuals experiencing low positive affect are characterized by exhaustion and unhappiness (Watson et al., 1988). Negative affect reflects the level of sadness and stress, which includes states such as anxiety, fear, and anger (Watson et al., 1988). Low negative affect, on the other hand, is related to calmness and tranquility (Watson et al., 1988). The cognitive component is characterized by overall

satisfaction with life (Arthoud-Day et al., 2004), as well as by satisfaction within important domains (such as work and relationships) (Diener, 2000).

Research of Green et al. (2006) and Spence and Grant (2007) has shown that coaching can increase well-being and decrease anxiety and stress. Coaching is increasingly being used by individuals to achieve valuable personal goals: they want to improve balance and quality of life, attain more satisfaction (Whitworth, Kimsey-House & Sandahl, P., 2003) and improve their well-being (Green et al., 2006; Spence & Grant, 2007).

A previous research project by Mineur (2012) revealed five important coaching conditions that determine the success and effectiveness of a coaching program. These are: a) goals: the extent to which goals are clearly set by the coachee; b) relationship: the extent to which the coachee is satisfied with the relationship with the coach; c) motivation: the extent to which the coachee is motivated to be coached; d) expectations: the extent to which the expectations of the coaching intervention are set and achieved by the coachee; and e) mindset: the extent to which the coachee believes in the development and changeability of basic abilities. Mineur's research also led to a questionnaire that may be capable of assessing the degree to which these conditions are present in and have influence on a coaching program.

This new follow-up project is intended to investigate the relationship between coaching and well-being and the moderation effect of five coaching conditions thereon. It features semi-experimental, longitudinal research with a control group and is designed to answer the following research question: *"To what extent does the well-being of coachees improve in comparison to people who have not received coaching and how do the coaching conditions of goals, relationship, motivation, expectations, and mindset moderate this relationship?"*

In this research project, the level of well-being is measured using the Basic Psychological Needs Scales, which is based on the Self-Determination Theory. This theory argues that three innate psychological needs – namely autonomy (deCharms, 1968; Deci, 1975), competence (White, 1963; Harter, 1978), and relatedness (Reis, 1994; Baumeister & Leary, 1995) – are crucial for obtaining an optimal functioning of people's natural instincts for integration and growth, as well as for social development and well-being. Fulfillment of these three basic needs yields better self-motivation and mental health; in contrast, their hindrance leads to reduced motivation and well-being (Ryan & Deci, 2000). Therefore, the level of well-being is measured with the three variables derived from the Self-Determination Theory.

This research project is intended to contribute to the present literature surrounding coaching. The scarcity of research concerning potentially moderating coaching conditions makes this an especially innovative project. The relationship between coaching and the potential positive outcome of well-being

shows the practical relevance of this longitudinal research project. The results of the project may show coaches which coaching conditions are important in order for coaching to succeed. If the outcomes positively demonstrate the effectiveness and usefulness of coaching, individuals who have been skeptical about participating in a coaching program may also be motivated to try one out.

The following section of this research project outlines the theoretical framework and reflects the results of a comprehensive literature review. A description of the concept of coaching, an elaboration of the five coaching conditions, and a more detailed explanation of the Self-Determination Theory are all included. Hypotheses are also formulated concerning the expected results between the experimental and control groups and the expected influences of the coaching conditions. The subsequent methods section describes the sample and explains the measures used, while the results section presents an analysis of the data obtained from the questionnaires. The research project concludes with a discussion and suggestions for future research.

THEORETICAL FRAMEWORK

Coaching and its goals and outcomes

Coaching, which has been firmly established for more than twenty years, is now coming into maturity and revealing more of its depth (Whitmore, 2009). One important reason why people choose coaching over other developmental programs is that coaching has the distinctive feature of focusing on the development of the individual (Gettman, 2008) and can be adapted to the personal needs and goals of the person being coached (Wasylyshyn, 2003; Morgan, Harkins & Goldsmith, 2004; Fillery-Travis & Lane, 2006). NOBCO – The Dutch Order of Professional Coaches – bases its definition of coaching on these concepts. According to this organization, coaching can be understood as a form of professional guidance in which the coach supports the client as an equal partner in achieving the client's self-chosen goals (NOBCO, 2011). Overall, coaching in this sense is a goal-oriented activity, aimed at attaining the personal results desired by a coachee (Grant & Cavanagh, 2011). Improving life experience, work performance, personal development, motivation, and job satisfaction (Miles, Patrick & King, 1996; Green, Oades & Grant, 2006; Spence & Grant, 2007; Park, 2007; Wright, 2007) are goals that are frequently mentioned by individuals participating in coaching interventions. The central focus of a coaching program is to achieve these goals, as doing so can lead to higher performance and greater well-being (Green et al., 2006; Spence & Grant, 2007) and less stress (Gyllensten & Palmer, 2005a).

The Hope Theory of Snyder (2000) may explain these positive outcomes. Hope is linked to feelings of control, optimism, and motivation in relation to the attainment of personal goals (Snyder, 2000). The Hope Theory states that hopeful thinking consists of the following three main items: 1) Goals – approaching life in a goal-oriented way; 2) Pathways – finding different ways to achieve goals; and 3)

Agency – believing that you can instigate change and achieve these goals. Together, pathways and agency thinking gives people the tools they need to pursue their goals (Snyder, 2000).

Hopeful thinkers are people who are capable of setting clear goals, imagining multiple usable pathways towards those goals, and persevering, even if obstacles stand in their way. According to the study of Snyder et al. (1991), individuals who obtain high scores on the Hope Scale have been more successful in reaching their personal goals than those with low scores. This contributes to their correspondingly higher levels of both self-esteem and well-being.

Well-being: Self-Determination Theory

Well-being refers to how people's moods and emotions reflect their reaction to events that happen to them. However, well-being is also influenced by broader judgments concerning life as a whole and by important domains such as relationships and work (Diener, 2000). Therefore, well-being consists of both overall satisfaction with life and satisfaction with important domains.

In this research project, well-being is used to gauge the effectiveness of coaching. The level of well-being is measured with the three variables derived from the Self-Determination Theory (SDT). The SDT suggests that the level of well-being of an individual is dependent on the satisfaction of three basic psychological needs, namely: 1) autonomy, 2) competence, and 3) relatedness (Deci & Ryan, 1985). According to the SDT, "people feel their best and do well when the socio-cultural conditions of their lives (i.e., family relationships, friendships, workplace culture, political system, cultural norms) support the innate needs of freely engaging in interesting activities (autonomy), producing valued outcomes via the use of their capacities (competence), *and* feeling closely and securely connected to significant others (relatedness)" (Spence & Oades, 2011, p. 42). If these three basic needs are fulfilled, better self-motivation and mental health will result; if they are hindered, reduced motivation and well-being will ensue (Ryan & Deci, 2000). Thus, the SDT argues that an individual's well-being and effective functioning are related to the degree to which the basic psychological needs for autonomy, competence, and relatedness are being met. When there is obstruction in these needs being fulfilled, people function non-optimally and feel unwell.

Coaching practice

The coach plays a major role in the outcomes of a coaching program. Expertise and understanding of the coaching process is required, as well as the styles, skills and techniques suitable to the context in which the coaching takes place (Parsloe, 1999). Coaching encourages individuals to reach their personal goals by improving their awareness, responsibility, self-confidence and self-reliance (Passmore, 2010). Coaches know their coachees' developmental needs, communicate extensively, and analyze their performance in a critical way (Paffen, 2002). Furthermore, a coach has to be aware of the strength of positive valuation, because they value their coachees not only for their achievements and improvements, but also as individuals (Paffen, 2002).

The question of how coaches can contribute to the satisfaction of the three basic psychological needs (namely autonomy, competence and relatedness) and thus indirectly to well-being merits further exploration. Firstly, coaches can support autonomy by letting the coachee determine the agenda. In this way, the coachee is stimulated to take initiative and to manage his own growth. Secondly, coaches can create conditions that stimulate a sense of competence. The coach achieves this by recognizing and appointing the coachee's competences and guiding these competences in the right direction. Finally, coaches can use micro skills (such as active listening and empathy) to create an environment that encourages the coachee's satisfaction of relatedness (Spence & Oades, 2011).

Coaching can therefore be associated with an ability to move into greater and more complex responsibilities, the achievement of competences, and the improvement of relationships (Kilburg, 1996; Natale & Diamante, 2005).

It seems likely that coaching has a positive effect on the attainment of the personal goals of an individual, as coaches make coachees aware of their options for achieving their desired goals and assist them in clarifying these goals (Luijendijk, 2008). Furthermore, Hernez-Broome (as cited in Mineur, 2012) showed in his study that members of a group that had received coaching achieved their personal goals to a greater extent than those in a group that did not receive coaching. Achieving these personal goals can result in higher performance and greater well-being (Matthewman, 2009; Green et al., 2006).

To summarize, in line with previous research and evidence, a significant positive relationship between coaching and well-being is expected. Therefore, the first hypothesis is:

Hypothesis 1a: People who receive coaching are more likely to improve their level of well-being than people who do not receive coaching.

To reveal in greater detail which part of well-being is affected by the coaching intervention, the following sub-hypotheses are formulated as well:

Hypothesis 1b: People who receive coaching are more likely to improve their level of autonomy than people who do not receive coaching.

Hypothesis 1c: People who receive coaching are more likely to improve their level of competence than people who do not receive coaching.

Hypothesis 1d: People who receive coaching are more likely to improve their level of relatedness than people who do not receive coaching.

Coaching conditions

Coaching conditions are factors that are important in order for coaching to succeed. The research of Mineur (2012) has shown five conditions that contribute to the success and effectiveness of coaching. These conditions all have individual influences, but if one or more conditions are absent, then the coaching is likely to be less successful. The five coaching conditions are described below.

Goals

According to Grant and Cavanagh (2011), "coaching is a goal directed activity" (p. 294) insofar as it is focused on the achievement of personal goals appreciated by a coachee. No matter if these goals are aimed at the acquisition of specific competences and improved performance or are more developmental in nature, the success of coachees depends on the extent to which they achieve their personal goals. Coachees can commit themselves to any goals; however, when coachees have taken part in setting their goals, or when goals are self-set instead of assigned, their commitment to the goals will be higher and more successful outcomes will follow (Locke, 1996). Goal-focused coaching is aimed at a process of change and development in which a coachee "sets a goal, develops a plan of action, begins action, monitors his or her performance (through observation and self-reflection), evaluates his or her performance (gaining insight) and based on this evaluation, changes his or her actions to further enhance performance, and reach his or her goal" (Grant, 2007, p. 257). The coach is there to help the coachee through this cyclical process (Grant & Cavanagh, 2007). The following hypothesis is as a result proposed:

Hypothesis 2a: Setting clear goals by the coachee moderates the relationship between coaching and well-being, such that the relationship will strengthen when the coachee's level of setting clear goals increases.

Relationship

Numerous studies have shown that the relationship between coach and coachee is important (Thach & Heinselman, 1999; Renshaw & Alexander, 2005; De Haan, 2007; Baron & Morin, 2009). Ragins, Cotton, and Miller (2000) found that the relationship between coach and coachee can determine the effectiveness of coaching. From the viewpoint of the coachee, the relationship between coach and coachee is the main tool a coach can use to achieve coaching effectiveness (De Haan, as cited in Thewissen, 2011). Research shows that coachees have a very clear idea of what they value within a coaching relationship. They expect their coaches to have strong communication skills, to be able to listen, to recall information accurately, to challenge while maintaining support for them as individuals, and to direct attention through questions (Passmore, 2010). Coaches have to show that they are open, honest and appreciate others (Renshaw & Alexander, 2005) and must be organized, maintain confidentiality, and display self-confidence (Blackman, 2006). Factors such as empathy, experience,

credibility, being knowledgeable, and having sufficient contact time were also identified by coachees as fundamental characteristics for coaches to have (Blackman, 2006). The presence of mutual trust is additionally shown as an important aspect (Peterson, 1996; Hall et al., 1999; Frish, 2001; Hollenbeck, 2002; Bluckert, 2005; De Haan, 2007). A coach therefore needs to be carefully selected, since chemistry (or a mental connection) between coach and coachee is very important and face-to-face contact can be significant for effective coaching results (Wasylyshyn, 2003; Natale & Diamante, 2005). The following hypothesis is as a result proposed:

Hypothesis 2b: The strength of the coaching relationship moderates the relationship between coaching and well-being, such that the relationship will strengthen when the strength of the coaching relationship increases.

Motivation

Characteristics of a coachee can affect both the coaching intervention and its derived outcomes. One of these characteristics is the motivation of the coachee. According to Marshall (2006), coachees' motivation contributes to successful outcomes of coaching. Spence and Oades (2011) found that motivation plays a significant role in the behavior of a coachee. If coachees exhibit coaching-related behavior because they *have* to, it is considered 'movement'; if, however, they exhibit coaching-related behavior because they *want* to, it is considered 'motivation' (Herzberg, 1987). Positive and long-lasting results in coaching are mainly recognized when the coachee is actively engaged (or motivated) in the change (Spence & Oades, 2011). Definitions of motivation include the psychological process that gives behavior purpose and direction (Kreitner, 1995); a predisposition to behave in a purposive way to achieve specific, unfulfilled needs (Buford, Bedeian & Lindner, 1995); an internal drive to satisfy an unmet need (Higgins, 1994); and the will to achieve (Bedeian, 1993). For this research project, motivation is operationally defined as the inner force that drives people to achieve personal goals.

Herzberg's two-factor theory (1987) distinguishes between motivators and hygiene factors. His research indicates that motivators are intrinsic to coachees and relate to the self-desire of coachees to reach goals and thereby experience personal development and change. Hygiene factors are extrinsic to coachees and relate to the self-desire of coachees to achieve goals and thereby obtain a higher status and salary. Moreover, if barriers to personal development and change are removed, coachees will naturally pursue creativity, self-actualization, curiosity, and playfulness (Maslow, 1968), which is still a primary goal of a coaching intervention (Williams, 2003). However, the process of personal development and change is very challenging and often results in ambivalent feelings and other mental and behavioral challenges that can hinder the achievement of desired outcomes (e.g., avoidance, confusion; Miller & Rollnick, 2002). Suitable coaches know how to motivate and support coachees in their process of individual change and achievement (Paffen, 2002). However, the coach is only there to facilitate the coaching process; coachees themselves must do the work, which means that an active attitude (i.e., high

motivation) would be more desirable than a less active attitude (i.e., low motivation) for reaching personal goals (Goldsmith, 2004; De Haan, 2007).

Hence, when coachees have the motivation and therefore the desire to reach their personal goals, significant positive coaching outcomes could result. The following hypothesis is as a result proposed:

Hypothesis 2c: A higher motivation of the coachee moderates the relationship between coaching and well-being, such that the relationship will strengthen when the level of motivation of the coachee increases.

Expectations

A second individual characteristic that could result in successful or unsuccessful coaching outcomes is the coachee's expectations of the coaching intervention (Marshall, 2006). To deliver quality service, it is essential that the difference between what is expected before and what is perceived after the coaching intervention is as small as possible (Zeithaml, Parasuraman & Berry, as cited in Mineur, 2012). This means that from the start, clear expectations must be set and boundaries should be defined for both desired outcomes (Evers, Brouwers & Tomic, 2006; Goode, 2013) and the coach's services (Feldman & Lankau, 2005; Goode, 2013), so that both the coach and coachee are involved in the process. For instance, it has to be clear what behavior the coachee wants to improve through the coaching (Goldsmith, 2004), who is responsible for the outcomes and the process, and what lies within the privacy zone (Feldman & Lankau, 2005). This ensures that coaches can actually provide what coachees expect, and that coachees understand what they will be getting. Clearing up misunderstandings is important for avoiding unhappy coaches and coachees (Goode, 2013). The following hypothesis is as a result proposed:

Hypothesis 2d: Setting and achieving the expectations of the coaching intervention by the coachee moderates the relationship between coaching and well-being, such that the relationship will strengthen when the level of setting and achieving coaching intervention expectations by the coachee increases.

Mindset

In addition to the motivation and expectations of the coachee, the mindset of the coachee is an individual characteristic that could also influence the outcomes of coaching (Marshall, 2006). According to the Implicit Person Theory, Levy and Dweck (1998) distinguish between the fixed mindset (entity theorists) and the growth mindset (incremental theorists). When coachees have a fixed mindset, they think that their basic abilities (such as talent or intelligence) are fixed traits; they will document their talent or intelligence rather than developing it. When coachees have a growth mindset, they think that

their most basic qualities can be developed through hard work, which will result in resilience and eagerness to learn (Levy & Dweck, 1998).

A growth mindset would thus be more favorable than a fixed mindset, as coachees with a growth mindset believe they can change over time and across situations. They are also more willing to develop themselves in order to reach personal goals. The following hypothesis is as a result proposed:

Hypothesis 2e: A growth mindset moderates the relationship between coaching and well-being, such that the relation will strengthen when the level of a growth mindset increases.

Another individual characteristic that can affect the relationship between coaching and well-being is hope, or the extent to which an individual is a hopeful thinker (as explained by Snyder's Hope Theory within the theoretical framework). However, the decision was taken not to include this coaching condition in the current research project, and to examine only the five coaching conditions discovered through Mineur's research.

Figure 1 demonstrates the conceptual model of this research project. It presents the expected relationship between coaching and well-being, as moderated by the five coaching conditions. Well-being is measured with the three variables derived from the Self-Determination Theory, namely autonomy, competence and relatedness.
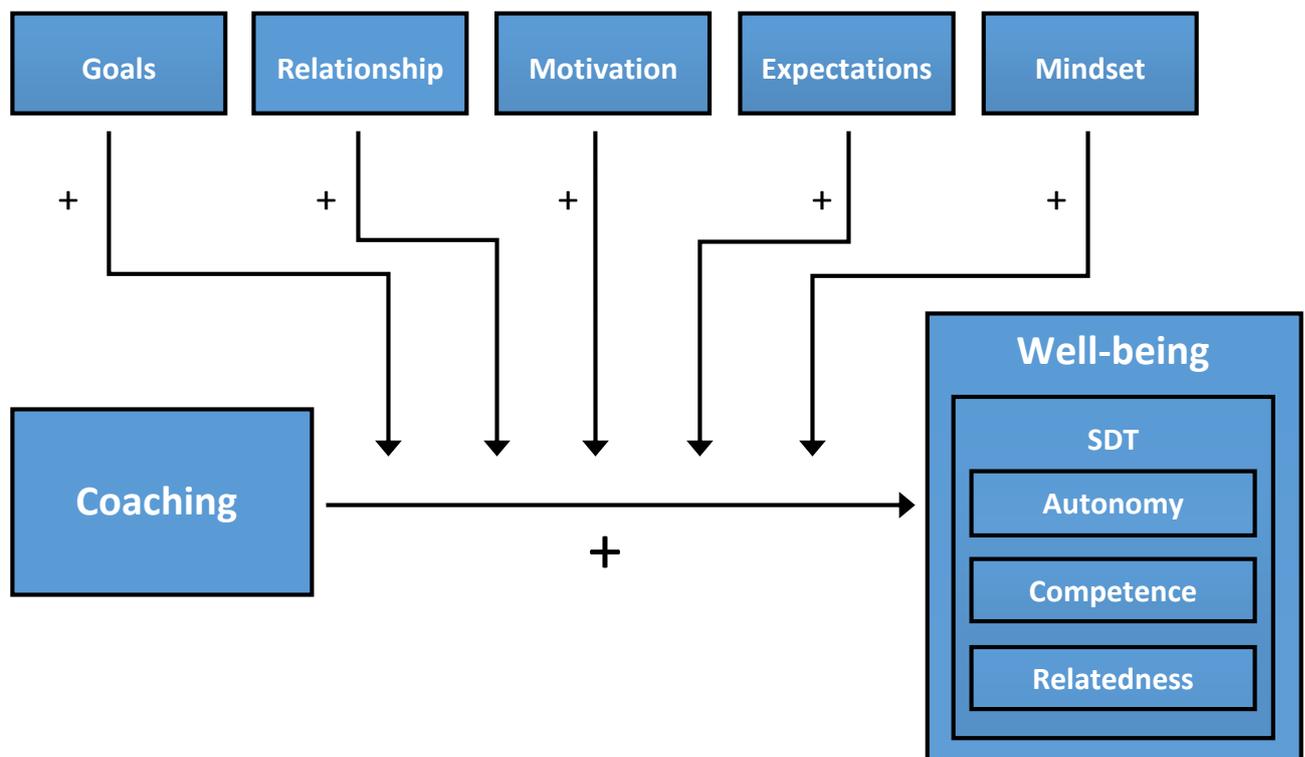

Figure 1 **Conceptual model**

METHODS

Variables

The study of Mineur (2012) revealed the following five coaching conditions that determine the effectiveness of a coaching program:

A1) Goals: the extent to which goals are clearly set by the coachee;

A2) Relationship: the extent to which the coachee is satisfied with the relationship with the coach;

A3) Motivation: the extent to which the coachee is motivated to be coached;

A4) Expectations: the extent to which the expectations of the coaching intervention are set and achieved by the coachee;

A5) Mindset: the extent to which the coachee believes in the development and changeability of basic abilities.

The above-mentioned coaching conditions were examined as variables using the questionnaire derived from Mineur's study (2012). The outcome well-being was measured with the following three variables derived from the SDT:

B1) Autonomy: the extent to which the coachee's level of autonomy is increased;

B2) Competence: the extent to which the coachee's level of competence is increased;

B3) Relatedness: the extent to which the coachee's level of relatedness is increased.

In addition to these variables, demographic data for the coachees (such as gender, age, education and marital status) were included as control variables. Why these control variables were included is explained later in this section.

Design of the research project

Experimental group: This research project is part of a larger research program on coaching conditions that involved questionnaires for Dutch coachees. The project featured a controlled behavioral intervention design. The variables were measured over a period of time (at three different moments). This is an advantage, given that repeated measures can determine the direction of causality (Pallant, 2010). The research data for the experimental group were collected by NOBCO coaches. Using a special coaching monitor developed for this project, coaches sent an online (pre-programmed) questionnaire to their own coachees (which meant that in practice, each coach decided the three moments of measurement). The coachees filled in the online questionnaire and the results of the completed questionnaires were stored in a large database. The coaches had no influence in selecting the experimental group, since the group was random and formed by self-selection. After the third measurement, all of the received data were handed over as one data set to the project researcher. The structure of the questionnaires was as follows:

Master Thesis - HRS - Manon van de Wiel

• Time 1 (T0) = after intake or the first session: a questionnaire concerning the coaching conditions goals (A1), relationship (A2), motivation (A3), expectations (A4) and mindset (A5), and well-being (B1, B2 and B3);

• Time 2 (T1) = halfway through the coaching program: a preliminary evaluation of progress (A1) and relationship (A2);

• Time 3 (T2) = after the coaching program: evaluation of progress (A1), and a second questionnaire about mindset (A5) and well-being (B1, B2, and B3).

Control group: It was not enough simply to show that people are perhaps changing over time as a result of the coaching intervention. This is because people change as a matter of course, in addition to sometimes changing for systematic reasons. Therefore, a control group had to be set up to rule out the effects of time or other events that could influence the outcomes of the research project. Data for the control group were collected by the researcher (through its own network) using a survey development cloud-based website. The researcher had no influence in selecting the control group, since the group was random and formed by self-selection. Thus, to test for causality and exclude alternative explanations, a control group that was not exposed to the coaching intervention but was similar to the experimental group in all other ways was also tested on well-being at T0 and T2. The questionnaires used for the experimental group at T1 were not usable for this non-coachee group. The structure of the questionnaires was as follows:

• Time 1 (T0) = an initial questionnaire about mindset (A5) and well-being (B1, B2 and B3);

• Time 2 (T1) = a second questionnaire about mindset (A5) and well-being (B1, B2, and B3).

To rule out the effects of time, the average duration between the two measurement time points of the control group is comparable, with the average duration between T0 and T2 of the experimental group.

Sample

Experimental group: Data for the experimental group (which consisted of Dutch coachees with different coaching goals) were collected by NOBCO coaches using the coaching monitor. The data were gathered through a first questionnaire at the beginning of the coaching process, a second questionnaire halfway through the coaching process and a third questionnaire after completion of the coaching process. The coaching interventions had an average duration of 4.3 months. In total 93 coachees (N=93) completed the first questionnaire, 47 coachees (N=47) completed the second questionnaire, and sixteen coachees (N=16) completed all three questionnaires. This is a high dropout rate. After having performed analyses on various characteristics of the respondents, it was shown that the group of N=16 virtually remained the same as the group of N=93. This means there was no specifically identifiable group of respondents who dropped out during the coaching process. Descriptive analyses were performed to check the data of the experimental group for missing values and outliers. There were no missing values and only one outlier. The decision was taken to remove this outlier from the data file, which resulted in N=15. The characteristics of the experimental group were as follows: 53.3 percent were male

respondents, and 46.7 percent were female. The age of the respondents ranged from 33 to 53 years, with an average of 43.60 years (*SD*=7.27) at the time of the first questionnaire. The educational level of the respondents was MBO up to university. Most of the respondents, 40.0 percent, were highly educated (HBO-bachelor's degree), followed by 33.3 percent with a university-master's degree. Most of the respondents, 73.3 percent, were married or living with a partner.

Control group: Data for the control group were collected through the researcher's network, using a survey development cloud-based website. The data from the first questionnaire were gathered in January 2014, with data from the second questionnaire being gathered 4.5 months later (May 2014). In total, 106 Dutch non-coachees (*N*=106) completed the first questionnaire and 61 non-coachees (*N*=61) completed both questionnaires. This is a significantly high dropout rate as well. After analysing various characteristics of the respondents, it was shown that 80.5% of all respondents who dropped out of this research were between 20 and 45 years old and were less educated. In order to ensure that the control group was as similar as possible to the experimental group, the control group was reduced to *N*=15 on the basis of matching pairs. This entailed each respondent of the control group being matched with another respondent of the experimental group on specific criteria (such as age, sex, education and marital status). An overview of the matched pairs is presented in appendix A. This matching resulted in the following characteristics of the control group: 53.3 percent of the respondents were male, and 46.7 percent were female. The age of the respondents ranged from 32 to 55 years, with an average of 42.80 years (*SD*=7.67) at the time of the first questionnaire. The educational level of the respondents was HAVO up to university. Most of the respondents, 40.0 percent, were highly educated (HBO-bachelor's degree), followed by 33.3 percent with an university-master's degree. Most of the respondents, 80.0 percent, were married or living with a partner.

Instruments

To measure the level of well-being and the five coaching conditions, different questionnaires were used. By performing reliability analyses and evaluating the scale reliability on the outcomes of the questionnaires, the Cronbach alpha was obtained (after reversing negatively worded items and adding up the total scores for the scales). The Cronbach alpha is known as an internal consistency estimate of the reliability of test scores. This refers to the degree to which the items that make up the scale (or subscale) 'hang together' (Pallant, 2010). According to Pallant (2010), the Cronbach alpha of a scale on individual level must be at least .7 to be acceptable. Information about the scales used in this research project and their Cronbach alphas are given below.

Well-being (SDT)

Well-being was measured before (T0) and after the coaching program (T2). The Dutch version of the Basic Psychological Needs Scales (Waringa & Naaborg, 2013), which consists of 21 items, was used to measure autonomy, competence and relatedness. Three subscales were formed for the degree to which the coachee experiences satisfaction of each of the three needs (see table 1 below). The items shown with (R) had to be reversed because they were negatively worded.

Table 1 **Subscales**

	Autonomy	**Competence**	**Relatedness**
General Scale	1, 4(R), 8, 11(R), 14, 17, 20(R)	3(R), 5, 10, 13, 15(R), 19(R)	2, 6, 7(R), 9, 12, 16(R), 18(R), 21

Each item was accompanied by a scale from 1 (not at all true) to 7 (very true). Sample questions are as follows:

- In the subscale 'autonomy': "*I feel like I am free to decide for myself how to live my life*".
- In the subscale 'competence': *"People I know tell me I am good at what I do"*.
- In the subscale 'relatedness': *"I get along with people I come into contact with"*.

The coachee's answers were converted into a score per scale (aspect). The subscale 'autonomy' ranged from 7 (low autonomy) to 49 (high autonomy), the subscale 'competence' from 6 (low competence) to 42 (high competence) and the subscale 'relatedness' from 8 (low relatedness) to 56 (high relatedness). The score per scale was fed back in the form of a number. The total score utilized all 21 items and ranged from 21 (low general satisfaction) to 147 (high general satisfaction). Measuring the reliability of each of the three subscales showed a Cronbach's alpha of .73 for autonomy, .75 for competence, and .75 for relatedness. The reliability analysis for the total general scale reported a Cronbach's alpha of .84, which implies that the general scale and the subscales had a good reliability. The questionnaire can be found in appendix B.

Goals

Goals were measured before (T0), halfway through (T1) and after the coaching program (T2). The questions used in this questionnaire were compiled by the NOBCO, based on practical experience and literature of Locke and Latham (2002), Spence (2007) and Visser and Schlundt Bodien (2009). In this questionnaire the coach question was mapped. The coach question was operationalized into concrete goals. The goals were described qualitatively, but were also quantified on a ten-point scale in which zero indicated a very low score and ten the highest possible score. The lower the score, the more possible growth there was towards the goal. The goal(s) described were fed back as completed by the coachee.

The scores on the quantitative (scale) questions were fed back as a number. The questionnaire can be found in appendix C.

Relationship

The coaching relationship was measured after the intake (T0) and halfway through the coaching program (T1). The Working Alliance Inventory – Short Form for Coaching (WAI-SC) was used to measure the concept 'relationship'. This scale was designed by Baron and Morin (2009) and translated to Dutch by Ribbers, Waringa and Naaborg (2013). It is a twelve-item instrument scored on a seven-point Likert scale ranging from 1 'never' to 7 'always'. The WAI-SC measured three components of the working alliance, namely: 1) bond (i.e., the strength of the relationship or connection between the coach and coachee), 2) tasks (i.e., the level of agreement between the coach and coachee on what should be done in treatment) and 3) goals (i.e., the level of agreement on the desired outcome of the treatment). Sample questions are as follows: from the 'bond' component (questions 1 to 4): "*I believe my coach likes me";* from the 'tasks' component (questions 5 to 8): "*My coach and I agree about the steps to be taken to improve my situation";* and from the 'goals' component (questions 9 to 12): *"We have established a good understanding of the kind of changes that would be good for me".* When the option of 'always' was chosen for questions 1 through 8, 10 and 12, a good relationship between coach and coachee was signaled. Items 9 and 11 were negatively worded and had to be reversed, because an answer of 'always' would signal a bad relationship between coach and coachee.

The answers of each coachee were converted into a score per scale (aspect) that ranged from 4 to 28. The higher the score on each scale, the more satisfied the coachee was with the coaching relationship. The score per scale was fed back in the form of a number. The total score utilized all 12 items and ranged from 12 (bad relationship) to 84 (good relationship). Measuring the reliability of the scale showed a Cronbach's alpha of .76, which implies that the scale had a good reliability. The questionnaire can be found in appendix D.

Motivation and Expectations

Each coachee's motivation and expectations were measured beforehand (T0). To measure these variables, questions were based on the Learning Transfer System Inventory (LTSI) by Holton III, Bates and Ruona (2000) and adapted by the NOBCO for the coaching context. Seven questions were included; an example is: "*I want to be coached, because it helps me in achieving my life goals".* All questions were measured on a seven-point Likert scale that ranged from 1 'totally disagree' to 7 'totally agree'.

The total score utilized all seven items and ranged from 7 (low motivation/expectations) to 49 (high motivation/expectations). The total score was fed back in the form of a digit. Measuring the reliability of the scale showed a Cronbach's alpha of .72, which implies that the scale had a good reliability. The questionnaire can be found in appendix E.

Mindset

The variable mindset was measured before (T0) and after the coaching program (T2). The questions used to measure someone's mindset were based on the Implicit Person Theory (IPT) from research of Levy and Dweck (1998), translated to Dutch by Ribbers, Waringa and Naaborg (2013). As mentioned in the theoretical framework, Levy and Dweck (1998) differentiate between the fixed mindset and the growth mindset. Eight questions were used to assess the mindset of coachees. For the measurement of these questions, a six-point Likert scale with options ranging from 1 'totally disagree' to 6 'totally agree' was used. An example of a question is: "*Everyone, no matter who they are, can significantly change their basic characteristics*". Option 1 ('totally agree') being chosen for questions 1, 2, 3 and 4 would indicate a coachee has a fixed mindset (when it would be preferable to have a growth mindset in order to be open to coaching). Option 7 ('totally agree') being chosen for questions 5, 6, 7 and 8 would signal an open mindset towards coaching.

The total score utilized all eight items and ranged from 8 (fixed mindset) to 48 (growth mindset). Items 1, 2, 3 and 4 had to be reversed. The total score was fed back in the form of a number. The reliability analysis reported a Cronbach's alpha of .77, which implies that the IPT-scale has a good reliability. The questionnaire can be found in appendix F.

Control variables

To control for the influence of possible confounding factors on the correlation between coaching conditions and well-being, some control variables that have proven to influence coaching outcomes were defined. Age and gender were considered in earlier research as an influence on the coaching process (Heslin, Vandewalle & Lathen, 2006). The age of the respondents was obtained from their date of birth. The variable gender was coded into dummy variables (1=male and 2=female). The marital status and the educational level were also considered as potential influences on the coaching process (Miles, Patrick & King, 1996) and were therefore chosen as control variables as well. The influence of these control variables can be analyzed by taking them into account in the standard multiple regression and analyzing them likewise in relation to the five individual coaching conditions and well-being (SDT).

Measures

To test the first hypothesis defined in the theoretical framework, well-being results were tested using a paired sample t-test. This type of test is used for measuring changes in scores for participants (Pallant, 2010). In this research project, well-being was tested at T0 (which was defined as the time before the coaching intervention), and then again at T2 (which was defined as the time after the coaching intervention). There was one categorically independent variable (T0/T2) and one continuous dependent variable (well-being). Well-being was defined as the continuous numerical outcome of the SDT questionnaire. The results of the paired sample t-test were then interpreted by determining the overall

significance. Mean values of well-being on T0 and T2 respectively were compared to reveal an increase or decrease in well-being.

A mixed between-within subjects analysis of variance (also called a split-plot ANOVA) was used to examine the effects of time or other events that may have influenced the results of the paired sample t-test. This type of ANOVA incorporates both a repeated measure effect as well as a between groups effect. There was one categorically independent within-subjects variable with two levels in the repeated measure (T0/T2), one categorical independent between-subjects variable with two levels (experimental group/control group), and one continuous dependent variable (scores on well-being measured at each time period).

In addition to testing hypothesis 1a (and considering the overall data of the SDT), hypotheses 1b to 1d were also tested to reveal in greater detail which part of well-being was affected by the coaching intervention. Based on these hypotheses, conclusions were drawn concerning the influence of the three main contributors to well-being (i.e., the level of autonomy, competence and relatedness). The same approach was used to test hypotheses 1b to 1d: paired sample t-tests and mixed between-within subjects ANOVA were performed and analyzed equivalently. The only difference was that the three main contributors of the SDT were used separately as continuous dependent variables.

Before these analyses were performed, Levene's Test of Equality of Error Variances was checked to see if the assumption of homogeneity of variances was violated. Violation did occur for competence at T0 ($p = .042$) and relatedness at T2 ($p = .037$) (the p-value should be more than .05). However, analysis of variance is reasonably robust to violations of this assumption, provided the size of the two groups is reasonably similar (Stevens, 1996). In this research project, as both groups consisted of 15 respondents, it was decided to proceed. Box's Test of Equality of Covariance Matrices was additionally checked. This assumption was not violated.

The effect size (= partial eta squared; the magnitude of the intervention's effect), also depending on the sample, was calculated afterwards (.01 = small effect, .06 = moderate effect, .14 = large effect).

If hypothesis 1a cannot be rejected, the five individual coaching conditions can be validated by testing hypotheses 2a to 2e using a Pearson correlation analysis and a hierarchical multiple regression analysis. However, to perform these analyses, the sample size should meet the requirement of $N>90$ in case of five independent variables (Tabachnik and Fidell, 2007). This current research project did not meet this requirement, which means that hypotheses 2a to 2e could not be tested due to a low N and related power problems.

RESULTS

This section describes the findings of this research project in relation to assessing hypotheses 1a to 1d.

Paired-samples t-test

A paired sample t-test was conducted to compare well-being scores for the experimental group at time 1 (T0) and time 3 (T2) and to evaluate the impact of the coaching intervention. There was a significant increase in well-being scores from T0 ($M = 106.73$, $SD = 12.43$) to T2 ($M = 111.40$, $SD = 13.05$), $t (14) = -2.29$, $p < .05$. The mean increase in well-being scores was -4.67 with a 95% confidence interval ranging from -9.03 to -.30.

To reveal in greater detail which part of well-being was affected by the coaching intervention, paired sample t-tests were also conducted to compare autonomy, competence and relatedness scores for the experimental group at time 1 (T0) and time 3 (T2). There was a significant increase in autonomy scores from T0 ($M = 33.67$, $SD = 5.23$) to T2 ($M = 36.47$, $SD = 5.15$), $t (14) = -2.51$, $p < .05$. The mean increase in autonomy scores was -2.80 with a 95% confidence interval ranging from -5.18 to -.41.

There was a significant increase in competence scores from T0 ($M = 29.87$, $SD = 5.40$) to T2 ($M = 32.33$, $SD = 4.91$), $t (14) = -3.24$, $p < .05$. The mean increase in competence scores was -2.47 with a 95% confidence interval ranging from -4.10 to -.83.

Finally, there was a decrease in relatedness scores from T0 ($M = 43.20$, $SD = 4.96$) to T2 ($M = 42.60$, $SD = 6.24$), $t (14) = .76$, however, this difference was not significant ($p = .46$). The mean decrease in relatedness scores was .60 with a 95% confidence interval ranging from -1.10 to 2.30. The statistical results of the paired samples t-tests are included in appendix G.

There are significant increases in the overall well-being, autonomy and competence scores for the experimental group from T0 to T2, and there is a non-significant decrease in the relatedness scores. However, is there also an interaction effect with the control group? In other words, is there a significantly different change in the scores over time for the two groups? Analyses are elaborated below.

Mixed between-within subjects ANOVA

Hypothesis 1a predicts that people who receive coaching are more likely to improve their level of well-being than people who do not receive coaching. A mixed between-within subjects analysis of variance was conducted to assess the impact of the coaching intervention on scores on well-being of the two groups (experimental and control group), across two time periods (pre-intervention and post-intervention). There was a significant interaction between group and time, Wilks' Lambda = .77, $F (1, 28) = 8.42$, $p < .05$, partial eta squared = .23. There was a non-significant small main effect for time, Wilks' Lambda = .95, $F (1, 28) = 1.44$, $p = .24$, partial eta squared = .05, with the experimental group showing an non-significant increase in well-being scores across the two time periods, and the control

group showing a non-significant decrease in well-being scores across the two time periods (see table 2). The main effect comparing the two groups was significant, $F (1, 28) = 5.23$, $p < .05$, partial eta squared = .16, suggesting a large difference in well-being scores of the two groups. The statistical results are presented in appendix H1.

Table 2 **Well-being scores for the experimental and control group across two time periods**

	Experimental group			Control group		
Time period	*n*	*M*	*SD*	*n*	*M*	*SD*
Pre-intervention (T0)	15	106.73	12.43	15	118.53	7.61
Post-intervention (T2)	15	111.40	13.05	15	116.60	8.37

The profile plot created by SPSS (see figure 2) provides a graphical representation of the group means, based on the passage of time as well as by group. This illustrates how the groups have changed over time as well as how they have changed relative to each other.
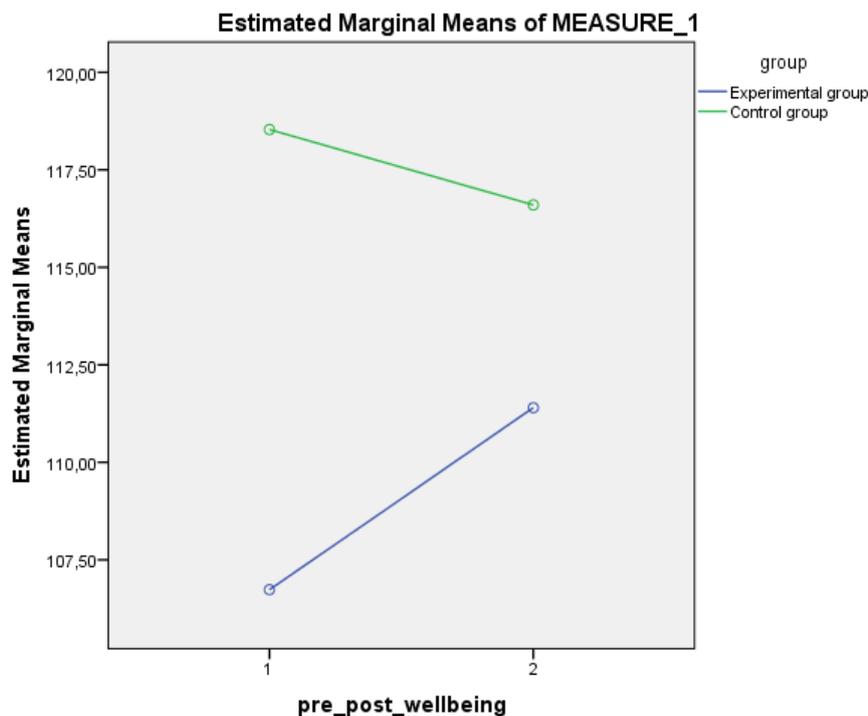
Figure 2 **Profile plot of the group means for well-being**

The same analyses were performed to test sub-hypotheses 1b, 1c and 1d. Hypothesis 1b predicts that people who receive coaching are more likely to improve their level of autonomy than people who do not receive coaching. There was a significant interaction between group and time, Wilks' Lambda = .82, $F (1, 28) = 6.16$, $p < .05$ partial eta squared = .18. There was a non-significant moderate main effect for time, Wilks' Lambda = .92, $F (1, 28) = 2.58$, $p = .12$, partial eta squared = .084, with the experimental group showing an non-significant increase in autonomy scores across the two time periods, and the

control group showing a non-significant decrease in autonomy scores across the two time periods (see table 3). The main effect comparing the two groups was significant, $F (1, 28) = 4.83$, $p < .05$, partial eta squared = .15, suggesting a large difference in autonomy scores of the two groups. See figure 3 for the profile plot and appendix H2 for the statistical results.

Table 3 **Autonomy scores for the experimental and control group across two time periods**

Time period	Experimental group			Control group		
	n	M	SD	n	M	SD
Pre-intervention (T0)	15	33.67	5.23	15	38.87	4.02
Post-intervention (T2)	15	36.47	5.15	15	38.27	4.48
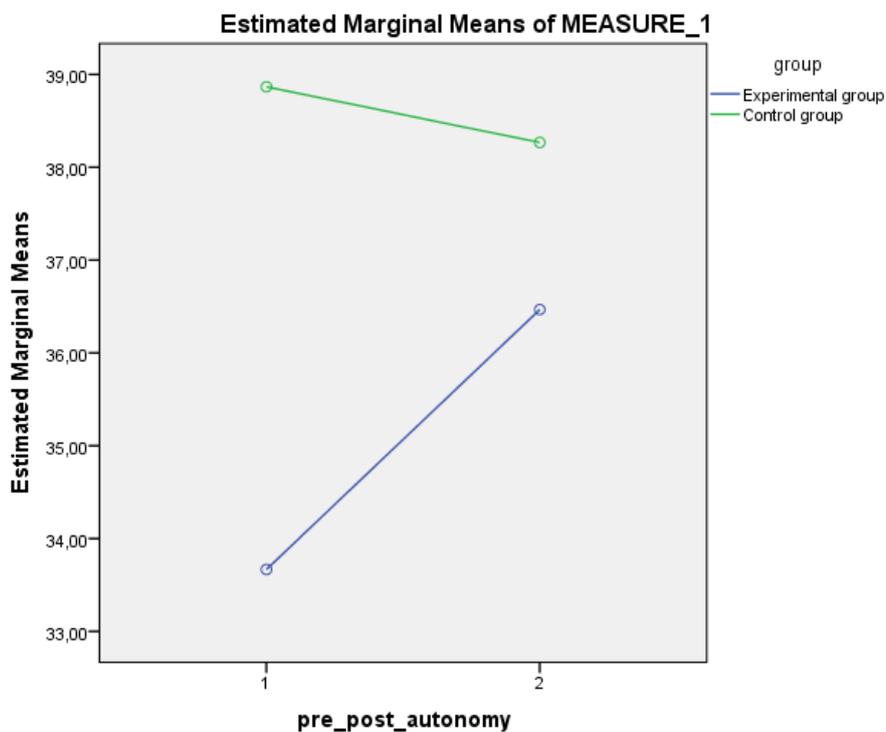
Figure 3 **Profile plot of the group means for autonomy**

Hypothesis 1c predicts that people who receive coaching are more likely to improve their level of competence than people who do not receive coaching. There was a significant interaction between group and time, Wilks' Lambda = .71, $F (1, 28) = 11.36$, $p < .01$ partial eta squared = .29. There was a non-significant moderate main effect for time, Wilks' Lambda = .94, $F (1, 28) = 1.78$, $p = .19$, partial eta squared = .06, with the experimental group showing an non-significant increase in competence scores across the two time periods, and the control group showing a non-significant decrease in competence scores across the two time periods (see table 4). The main effect comparing the two groups was not significant, $F (1, 28) = 2.76$, $p = .11$, partial eta squared = .09, suggesting a moderate difference

in competence scores of the two groups. See figure 4 for the profile plot and appendix H3 for the statistical results.

Table 4 **Competence scores for the experimental and control group across two time periods**

	Experimental group			Control group		
Time period	*n*	*M*	*SD*	*n*	*M*	*SD*
Pre-intervention (T0)	15	29.87	5.40	15	34.20	2.88
Post-intervention (T2)	15	32.33	4.91	15	33.13	4.29
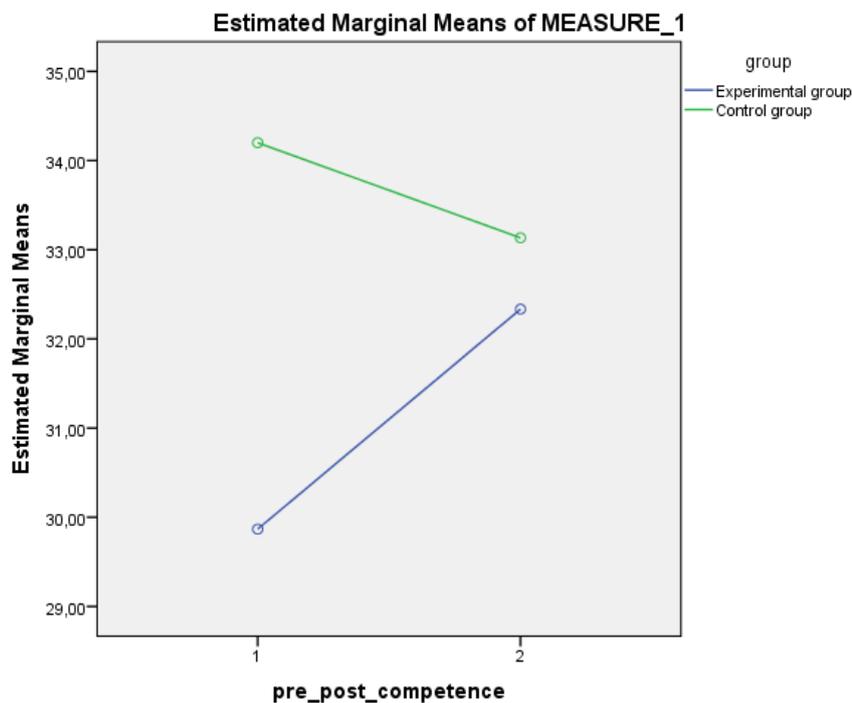
*Figure 4* **Profile plot of the group means for competence**

Hypothesis 1d predicts that people who receive coaching are more likely to improve their level of relatedness than people who do not receive coaching. There was a non-significant interaction between group and time, Wilks' Lambda = .997, F (1, 28) = .09, p = .76, partial eta squared = .003. There was a non-significant moderate main effect for time, Wilks' Lambda = .98, F (1, 28) = .63, p = .43, partial eta squared = .022, with the experimental group showing a non-significant decrease in relatedness scores across the two time periods, and the control group showing a non-significant decrease in relatedness scores across the two time periods (see table 5). The main effect comparing the two groups was not significant, F (1, 28) = 2.26, p = .14, partial eta squared = .08, suggesting a moderate difference in relatedness scores of the two groups. See figure 5 for the profile plot and appendix H4 for the statistical results.

Table 5 **Relatedness scores for the experimental and control group across two time periods**

Time period	Experimental group			Control group		
	n	M	SD	n	M	SD
Pre-intervention (T0)	15	43.20	4.96	15	45.47	3.31
Post-intervention (T2)	15	42.60	6.42	15	45.20	3.30
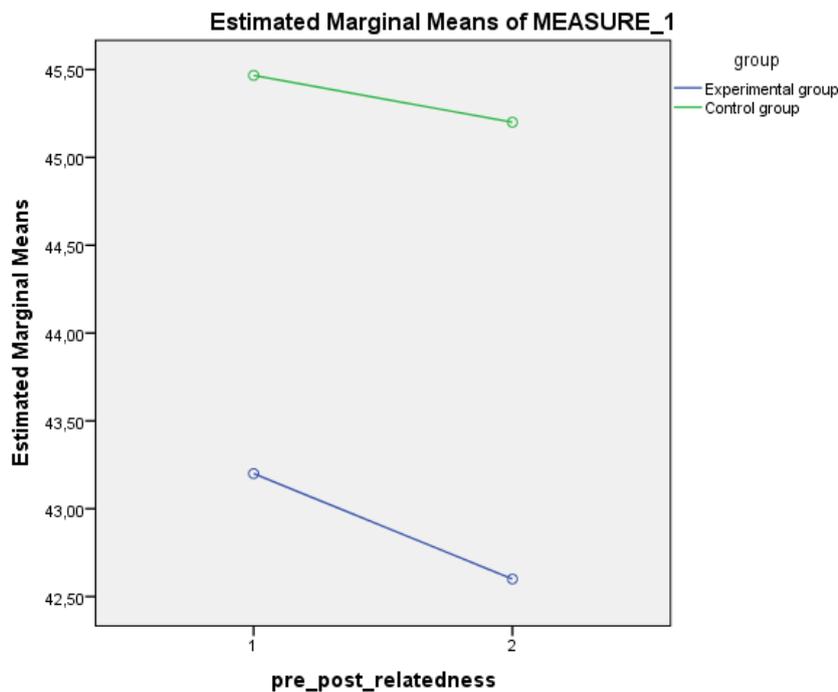
Figure 5 **Profile plot of the group means for relatedness**

Pearson correlation and hierarchical multiple regression analysis

Because of the low *N* in the experimental group, the individual coaching conditions could not be validated further by testing hypotheses 2a to 2e using a Pearson correlation and a hierarchical multiple regression analysis with well-being as the dependent variable. According to Tabachnik and Fidell (2007), the sample size requirement should meet *N*>90 in case of five independent variables.

For hypotheses 2c (motivation) and 2d (expectations), results were only available at T0. Therefore, no alternative analyses could be undertaken to draw conclusions on the coaching conditions of motivation and expectations. For the remaining hypotheses 2a (goals), 2b (relationship) and 2e (mindset), results over time were available. For the coaching condition goals, a paired sample t-test was performed. This revealed the change in the current status, motivation, confidence and independency scores over time with respect to the goals. Paired sample t-tests were also performed for the coaching conditions of relationship and mindset. This revealed the change in relationship and mindset scores over time for coachees who received coaching during that period. The results are shown below.

Goals

A paired sample t-test was conducted to reveal the change in the current status, motivation, confidence and independency scores over time with respect to the personal goals. There was a significant increase in current status scores with respect to the goals from T0 (M = 4.82, SD = 1.41) to T1 (M = 6.63, SD = 1.10), t (37) = -8.53, p < .01 and from T1 (M = 6.63, SD = 1.10) to T2 (M = 7.47, SD = 1.11), t (37) = -6.88, p < .01. The mean increase in currents status scores from T0 to T1 was -1.82 with a 95% confidence interval ranging from -2.25 to -1.38 and the mean increase from T1 to T2 was -.84 with a 95% confidence interval ranging from -1.09 to -.59.

Motivation scores with respect to the goals did not change from T0 (M = 9.03, SD = .85) to T1 (M = 9.03, SD = 1.00), t (37) = .00, p = 1.00.

There was a significant increase in confidence scores with respect to the goals from T1 (M = 7.76, SD = .75) to T2 (M = 8.13, SD = .70), t (37) = -2.67, p < .05. The mean increase in confidence scores was -.37 with a 95% confidence interval ranging from -.65 to -.09.

There was a significant increase in independency scores with respect to the goals from T1 (M = 6.89, SD = 1.23) to T2 (M = 7.47, SD = 1.18), t (37) = -4.32, p < .01. The mean increase in independency scores was -.58 with a 95% confidence interval ranging from -.85 to -.31.

Appendix I presents the personal goals which are mentioned by the coachees.

Relationship

For the coaching condition relationship a paired sample t-test showed an increase over time in the coaching relationship scores from T0 (M = 63.47 SD = 6.01) to T1 (M = 66.13, SD = 7.7), t (14) = -1.78. However, this increase was not significant (p = .097). The mean increase in relationship scores was -2.67 with a 95% confidence interval ranging from -5.88 to .55.

Mindset

For the coaching condition mindset a paired sample t-test revealed a significant increase over time in mindset scores for the experimental group from T0 (M = 28.27, SD = 5.92) to T2 (M = 31.13, SD = 4.97), t (14) = -2.39, p < .05. The mean increase in mindset scores was -2.87 with a 95% confidence interval ranging from -5.44 to -.30.

CONCLUSION AND DISCUSSION

Summary

The goal of this research was to investigate the relationship between coaching and well-being and how coaching conditions moderate this relationship. This resulted in the following research question: *"To what extent does the well-being of coachees improve in comparison to people who have not received coaching and how do the coaching conditions of goals, relationship, motivation,*

expectations, and mindset moderate this relationship?". After analysing the data provided by 15 coachees (experimental group) and 15 non-coachees (control group) using a longitudinal design, several conclusions about the relationship between coaching and well-being with the effects of the moderators can be drawn.

Based on the statistical outcomes, hypothesis 1a ('*people who receive coaching are more likely to improve their level of well-being than people who do not receive coaching*'), hypothesis 1b ('*people who receive coaching are more likely to improve their level of autonomy than people who do not receive coaching*'), hypothesis 1c ('*people who receive coaching are more likely to improve their level of competence than people who do not receive coaching*'), and hypothesis 1d ('*people who receive coaching are more likely to improve their level of relatedness than people who do not receive coaching*') were all rejected.

The five individual coaching conditions could have been validated by testing hypotheses 2a to 2e using a Pearson correlation analysis and a hierarchical multiple regression analysis. However, to perform these analyses, the required sample size in case of five independent variables should be six times larger than the current sample size. This current research project did not meet this requirement, which means that hypotheses 2a to 2e were not tested due to a low *N* and related power problems. Nevertheless, alternative analyses (namely paired sample t-tests) were performed for the coaching conditions goals, relationship and mindset. These analyses revealed that during the coaching program, coachees moved in the direction of their personal goals and gained more confidence and independence in achieving their goals. These results were all significant. The motivation level of the coachees with respect to achieving their goals did not change during the coaching intervention. However, this result was not statistically significant.

The mindset scores of the coachees significantly changed during the coaching program, which means that the average mindset of the coachees changed from being fixed to being more growth-oriented. Coachees developed a stronger belief that they can change over time and across situations and became more willing to develop themselves in order to reach personal goals. They also believe more strongly in the effectiveness and usefulness of coaching.

The strength of the coaching relationship increased during the coaching program as well; however, this result was not significant.

Interpretation

Hypothesis 1a stated that '*people who receive coaching are more likely to improve their level of well-being than people who do not receive coaching*'. The mixed within-between subjects ANOVA showed a small main effect for time, with the experimental group showing an increase in well-being scores across the two time periods while the control group showed a decrease. However, this main effect for time was small and not significant. This non-significant main effect can be attributed primarily to the significant interaction between the groups and time, since the paired sample t-test did show a

significance result on the main effect for time. Since the sample size of the experimental group was $N=15$, the control group had to be reduced to $N=15$ as well by selecting matching pairs. This small sample size introduced a larger fluctuation of the average level of well-being between the two measurements in time; indeed, the level of well-being of the control group should have remained fairly stable compared to the level of well-being of the experimental group. These results suggest that the improvement of the level of well-being is also influenced by external disturbances beyond the coaching. Since the analysis did not show a significant result, it is not possible to draw significant and general conclusions. Due to the insignificant effect, this hypothesis has been rejected. Nonetheless, the level of well-being increased over time for the experimental group, while it decreased for the control group over the same period. This suggests that there is a large difference in well-being scores between the two groups. Although the main effect for time was not significant, it can be stated that because of the large difference in well-being scores the hypothesis was formulated in the right direction. This is in agreement with expected results according to previous research and existing theories. The insignificant result is likely due to the low response of $N=16$ at T2. However, in a study where the group size is small, there must be awareness of the possibility that a non-significant result may be due to insufficient power, rather than no real difference between the groups (Pallant, 2010). A reason for the low N at T2 could be that people have not completed their coaching process yet, or that they have stopped their coaching due to changing jobs, re-organizations, private circumstances or other reasons.

Hypothesis 1b stated that '*people who receive coaching are more likely to improve their level of autonomy than people who do not receive coaching*'. The mixed within-between subjects ANOVA showed a moderate main effect for time, with the experimental group showing an increase in autonomy scores across the two time periods while the control group showed a decrease. However, this main effect for time was moderate and not significant. Same conclusions can be drawn for this sub-hypothesis: the non-significant result can be attributed primarily to the significant interaction between the groups and time, since here a paired-sample t-test also showed a significant result on the main effect for time. Since the analysis did not show a significant result, it is not possible to draw significant and general conclusions. Due to the insignificant effect, this hypothesis has been rejected. Nonetheless, the level of autonomy for the experimental group increased over time, while the level of autonomy for the control group decreased. This suggests that there is a large difference in autonomy scores between the two groups. Although the main effect for time was not significant, it can be stated that because of the large difference in autonomy scores the hypothesis 1b was formulated in the right direction. This is in agreement with expected results according previous research and existing theories.

Hypothesis 1c stated that '*people who receive coaching are more likely to improve their level of competence than people who do not receive coaching*'. The mixed within-between subjects ANOVA showed a moderate main effect for time, with the experimental group showing an increase in competence scores across the two time periods while the control group showed a decrease. However, this main effect for time was moderate and not significant. Since the analysis did not show a significant result, it is not

possible to draw significant and general conclusions. Due to the insignificant effect, this hypothesis was rejected. Although the effect of the coaching intervention was not significant and the mean increase of competence was moderate, it can be stated that because of the increase in competence scores for the experimental group and the decrease in competence scores for the control group, the hypothesis was stated in the right direction. This is supported by the significant result of the paired sample t-test and the significant interaction between the groups and time. This is in agreement with expected results according previous research and existing theories.

Hypothesis 1d stated that '*people who receive coaching are more likely to improve their level of relatedness than people who do not receive coaching*'. The mixed within-between subjects ANOVA showed a non-significant negative main effect for time, with the experimental group showing a higher decrease in relatedness scores across the two time periods than the control group. Therefore, hypothesis 1d has been rejected. This result was not expected according to previous research and existing theories. A reason for the decrease in relatedness scores of the experimental group could be that improving relatedness is not the main goal during a coaching program. In this research project, coachees frequently indicated that the main goal of participating in a coaching program is to improve their abilities and competences.

A paired sample t-test revealed that the coachees significantly moved in the direction of their personal goals and became more confident and independent in achieving them. A second paired sample t-test showed that the coachees developed a stronger belief that people can change over time and across situations and became more willing to develop themselves in order to reach personal goals. These results are in line with previous research. For example, according to Passmore (2010), coaching encourages individuals to reach their personal goals by improving their awareness, responsibility, self-confidence and self-reliance.

Limitations and future research

The findings of this project should be considered in light of limitations that could have influenced the reliability, validity and results of the research (as described below). The limitations are followed by some recommendations for future research.

The first limitation is that the research data were gathered using a convenience sampling method, which indicates that the samples consisted of respondents from the networks of coaches and the researcher. The results should hence be interpreted with caution. The use of convenience sampling also makes generalizing the research results to the entire population unadvisable. Future research should try to create a more representative sample by gathering the data using a random sample from the population.

The second limitation of this research project was the response of the experimental group to the third questionnaire (*N*=16), which was too small for proper analyses to be performed. A higher response was expected, but it proved difficult to obtain in practice. As a result, some outcomes were not statistically significant, which reduced confidence in the outcomes and caused the first set of hypotheses

to be rejected. The second set of hypotheses (2a to 2e) could not even be tested due to the low response. A reason for the low response to the third questionnaire could be that people stopped their coaching halfway through the process or simply had not yet completed the process. Nevertheless, since the results do indicate that the hypotheses have been formulated in the right direction, it is expected that the results would become significant with a larger sample size. It might therefore be interesting to replicate this research project with more data to increase the power of the tests and to enable significant conclusions to be drawn. This current research project is therefore seen as a pilot or indicative study.

Many interesting opportunities for future research have been identified during the course of this project. If there is a large N, groups of coachees who have been coached by the same coach could be created. This would result in is a multilevel (or nested) structure, which actually should have been taken into account in the analysis. For example, it could be that effects of the coaches themselves are attributed accidentally to the variable 'relationship'. Another possible option is to look only at a subset of coachees (e.g., all those who are coached by the same coach). In this case there would certainly be no question of mixing factors. Coachees could also be stratified into age groups, groups that have completed their coaching a comparable time ago, groups with the same amount of coaching sessions, or groups with similar coaching goals. Future research could also create dichotomous variables for 'mindset' and 'motivations and expectations', rather than continuous variables. In this way, groups of coachees could be created with the same mindset (fixed or growth) and the same motivation level (low or high, extrinsic or intrinsic). Finally, future research could add 'hope' as sixth coaching variable to the conceptual model of this research, as the literature review showed that this is an individual characteristic that may have an impact on the relationship between coaching and well-being. A questionnaire that could be used to measure 'hope' can be found in Appendix J.

Implications

This research project contributes to coaching-related literature and theory. Since the relationship between coaching and well-being shows positive results (even though significance is lacking due to limited response), people who receive coaching are more likely to improve their well-being than those who have not received coaching. In addition, this project also shows that coaching can contribute positively to achieving goals and changing one's mindset.

Due to the lack of input data, the practical implications of this research project are rather limited. The outcomes are not significant, which causes an increased awareness that conclusions cannot be generalized. Nevertheless, the results of the analyses performed using the limited set of samples are very promising for confirming the research question, and thereby previous studies on this topic. With this project, a solid foundation is set for further work on this topic. An applicable theoretical framework and methods have been established to determine if coaching improves well-being and how coaching conditions moderate this relation (as stated in the research question). These methods should be replicated on a larger sample size (approximately N=90) to reveal significant results and to enable statistically

valid and general conclusions to be drawn. These conclusions would hopefully constitute a unique and important contribution to the existing theory of coaching and its effectiveness.

REFERENCES

Arthaud-Day M. L., Rode, J. C., Mooney, C. H. & Near, J. P. (2004). The subjective well-being construct; A Test of its convergent, discriminant, and factorial validity. *Social Indicators Research, 74,* 445-476.

Baron, L., & Morin, L. (2009).The Coach-Coachee Relationship in Executive Coaching: A field Study. *Human Resource Development Quarterly, 20(1),* 85-106.

Baumeister, R., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117,* 497-529.

Bedeian, A. G. (1993). Management (3rd ed.). New York: Dryden Press.

Blackman, A. (2006). Factors that Contribute to the Effectiveness of Business Coaching: The Coachees Perspective. *The Business Review, 5(1),* 98-104.

Bluckert, P. (2005). Critical factors in executive coaching – the coaching relationship. Industrial & Commercial Training, 37(6/7), 336-340.

Bresser, F., & Wilson, C. (2010). What is coaching?. *Excellence in coaching: The industry guide*, 9-26.

Buford, J. A., Bedeian, A. G., & Lindner, J. R. (1995). Management in Extension (3rd ed.). Columbus, Ohio: Ohio State University Extension.

deCharms, R. (1968). *Personal causation.* New York: Academic Press.

Deci, E. L. (1975). *Intrinsic motivation.* New York: Plenum.

Deci, E. L., & Ryan, R. M. (1985). *Self-Determination*. John Wiley & Sons, Inc.

Deci, E. L., & Ryan, R. M. (2000). *The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior.* Psychological Inquiry, 11, 227-268.

De Haan, E. (2007). *Relationele Coaching. Wegen naar meesterschap in helpende gesprekken [Relational Coaching. Roads to mastery in helping conversations].* Assen, The Netherlands, Van Gorcum.

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.

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist*, *55*(1), 34.

Evers, W. J. G., Brouwers, A., & Tomic, W. (2006). A Quasi-experimental Study on Management Coaching Effectiveness. *Consulting Psychology Journal: Practice and Research, 58(3),* 174-182.

Feldman, D. C., & Lankau, M. J. (2005). Executive Coaching: A Review and Agenda for Further Research. *Journal of Management, 31(6),* 829-848.

Fillery-Travis, A. & Lane, D. (2006). Does Coaching Work or are we Asking the Wrong Question? *International Coaching Psychology Review 1(1),* 23-36.

Frisch, M. H. (2001). The emerging role of the internal coach. Consulting Psychology Journal: Practice & Research, 53(4), 240-250.

Gettman, H. J. (2008). Executive Coaching as a Developmental Experience: A Framework and Measure of Coaching Dimensions. Dissertation. College Park, Maryland: University of Maryland.

Goldsmith, M. (2004). Changing leadership behavior. *The Journal for Quality and Participation, 27(4),* 28-33.

Goode, C. (2013). Coaching Skills – Set Expectations with Your Coaching Clients. Retrieved from http://academyforcoachingparents.com/coaching-skills-set-expectations-coaching-clients, December 9, 2014.

Grant, A. M., & Cavanagh, M. (2011). Coaching and positive psychology. *Designing positive psychology: Taking stock and moving forward*, 293-312.

Grant, A. M., & Cavanagh, M. (2007). The Goal-Focused Coaching Skills Questionnaire: Preliminary Findings. *Social Behavior and Personality. 35*(6), 751-760.

Grant, A. M. (2006). A Personal Perspective on Professional Coaching and the Development of Coaching Psychology. *International Coaching Psychology Review, 1(1),* 12-22.

Grant, A. M. (2007). Enhancing Coaching Skills and Emotional Intelligence through Training. *Industrial and Commercial Training, 39(5),* 257-266.

Green, L. S., Oades, L. G., & Grant, A. M. (2006). Cognitive-behavioral, solution-focused life coaching: Enhancing goal striving, well-being, and hope. *The Journal of Positive Psychology*, *1*(3), 142-149.

Gyllensten, K., & Palmer, S. (2005a). Can Coaching Reduce Workplace Stress? *The Coaching Psychologist, 1,* 15-17.

Hall, D. T., Otazo, K. L., & Hollenbeck, G. P. (1999). Behind closed doors: What really happens in executive coaching. Organizational Dynamics, 27(3), 39-53.

Harter, S. (1978). Effectance motivation reconsidered: Toward a developmental model. *Human Development, 1,* 661-669.

Herzberg, F. (1987). One more time - How do you motivate employees? *Harvard Business Review, 65(5),* 109-120.

Heslin, P. A., VandeWalle, D., & Latham, G. P. (2006). Keen to help? Managers' implicit person theories and their subsequent employee coaching. *Personnel Psychology, 59*, 871-902.

Higgins, J. M. (1994). The management challenge (2nd ed.). New York: Macmillan.

Hollenbeck, G. (2002). Coaching executives: Individual leader development. In Rob Silzer (Ed.) The 21st Century Executive: Innovative Practices for Building Leadership at the Top. San Francisco, CA: Jossey-Bass, 137-167.

Holton III, E. F., Bates, R. A., & Ruona, W. E. A. (2000). Development of a Generalized Learning Transfer System Inventory. *Human Resource Development Quarterly, 11(4),* 333-360.

Kilburg, R. R. (1996). Toward a Conceptual Understanding and Definition of Executive Coaching. *Consulting Psychology Journal Practice and Research, 48*, 134-144.

Kreitner, R. (1995). Management (6th ed.). Boston: Houghton Mifflin Company.

Levy, S., & Dweck, C. S. (1998). Trait –focused and process-focused social judgment. *Social Cognition (Special Issue: Implicit Theories and Social Judgment), 16,* 151-172.

Locke, E. A. (1996). Motivation Through Conscious Goal Setting. *Applied & Preventive Psychology, 5(2)*, 117-124.

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

Marshall, M. (2006). The Critical Factors of Coaching Practice Leading to Successful Coaching Outcomes. Dissertation. Yellow Springs: Antioch University.

Maslow, A. H. (1968). *Toward a Psychology of Being (2nd ed.).* New York, USA: Van Nos/Trand Reinold Company.

Matthewman, L. (2009). Evaluating Coaching Effectiveness. *Coaching Psychology International, 2(1),* 21-22.

Miles, E. W., Patrick, S. L., & King, W. C. (1996). Job level as a systemic variable in predicting the relationship between supervisory communication and job satisfaction. *Journal of Occupational and Organizational Psychology*, *69*(3), 277-292.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change*. Guilford press.

Mineur, M. (2012). Determining relevant factors of coaching: The development of a questionnaire. Thesis. Tilburg: Tilburg University.

Morgan, H., Harkins, P., and Goldsmith, M. (2004) Profiles in Coaching. Burlington: Linkage, Inc.

Natale, S. M., & Diamante, T. (2005). The Five Stages of Executive Coaching: Better Process Makes Better Practice. *Journal of Business Ethics, 59,* 361-374.

NOBCO (2012). http://www.nobco.nl/kenniscentrum/wat-is-coaching/definities

Paffen, M. J. A. (2002). Goede Managers Kenmerkt Coachend Leiderschap [Good Managers Characterizes Coaching Leadership]. *Bedrijfskundig Vakblad, 02.3,* p. 27 – 32. Retrieved February 14, 2013 from: http:// cdcnederland.nl/user_bijlagen/cdc/cdc/Goede%20managers% 20kenmerkt%20coachend%20leiderschap.pdf

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*. Maidenhead: Open University Press.

Park, S. (2007). *Relationships among managerial coaching in organizations and the outcomes of personal learning, organizational commitment, and turnover intention*. ST. Paul: University of Minnesota.

Parsloe, E. (1999). *The manager as coach and mentor.* CIPD Publishing.

Passmore, J. (2010). *Excellence in coaching: The industry guide*. Kogan Page Publishers.

Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, *3*(2), 137-152.

Peterson, D. B. (1996). Executive coaching at work: The art of one-on-one change. Consulting Psychology Journal: Practice & Research, 48(2), 78-86.

Poell, R. F. , & Van Woerkom, M. (2011). *Supporting Workplace Learning. Towards Evidence-based* Practice. Dordrecht, The Netherlands: Springer.

Ragins, B. R., Cotton, J. L. & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal*, *43*, 1177-1194.

Reis, H. T. (1994). Domains of experience: Investigating relationship processes from three perspectives. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships,* 87-110. Hillsdale, NJ: Erlbaum.

Renshaw, B., & Alexander, G. (2005). *Super coaching: The missing ingredient for high performance*. Random House.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and applications*. Academic press.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., & Snyder, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.

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.

Spence, G. B. (2007). *GAS powered coaching: Goal Attainment Scaling and its use in coaching research and practice.* International Coaching Psychology Review. Vol. 2. No. 2.

Spence, G. B., & Grant, A. M. (2007). Professional and peer life coaching and the enhancement of goal striving and well-being: An exploratory study. *The Journal of Positive Psychology*, *2*(3), 185-194.

Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd edn). Mahwah, NJ: Lawrence Erlbaum.

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics*. Boston: Pearson Education.

Thach, L., & Heinselman, T. (1999). Executive Coaching Defined. *Training and Development,* 1 – 5.

Thewissen, M. (2011). De Praatstok en de Veer [The Talking Stick and the Feather]. *Tijdschrift voor Coaching, 4,* 74 – 77.

Visser, C. & Schlundt Bodien, G. (2009). *Doen wat werkt: Oplossingsgericht Werken, Coachen En Managen [Doing what Works: Working Solution, Coaching and Managing].* Duuren Media.

Wasylyshyn, K. M. (2003). Executive Coaching. An Outcome Study. *Consulting Psychology Journal: Practice and Research, 55(2),* 94 – 106.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology*, *54*(6), 1063.

White, R. W. (1963). *Ego and reality in psychoanalytic theory.* New York: International Universities Press.

Whitmore, J. (2009). *Coaching for Performance: Growing Human Potential and Purpose*. London, UK: WS Bookwell.

Whitworth, L., Kimsey-House, H. & Sandahl, P. (2003) Co-Active Coaching. Palo Alto, CA: Davies-Black Publishing.

Williams, P. (2003). The Potential Perils of Personal Issues in Coaching. The Continuing Debate: Therapy or Coaching? What Every Coach MUST Know! *International Journal of Coaching in Organizations, 2*(2*),* 21 – 30.

Wright, J. (2007). Stress in the workplace: A coaching approach. *Work, 28*(3), 279–284.

Appendix A - Overview of the matching pairs

Experimental group					Control group				
Respondent	**Sex**	**Age**	**Education**	**Marital Status**	**Respondent**	**Sex**	**Age**	**Education**	**Marital Status**
1	F	51	HAVO	Married	1	F	49	HAVO	Married
2	F	35	University	Married	2	F	36	University	Married
3	M	50	HBO	Married	3	M	49	HBO	Married
4	M	52	HBO	Married	4	M	52	HBO	Married
5	M	33	MBO	In a relationship	5	M	32	HAVO	Single
6	M	52	University	Married	6	M	50	University	Married
7	F	37	University	Married	7	F	41	University	Married
8	M	47	MBO	Married	8	M	48	HAVO	Married
9	M	37	HBO	Married	9	M	36	HBO	In a relationship
10	M	45	HBO	Married	10	M	44	HBO	Married
11	F	40	University	Married	11	F	37	University	Married
12	F	53	MBO	Single	12	F	55	HAVO	Married
13	F	39	HBO	Single	13	F	36	University	Single
14	F	48	HBO	Single	14	F	46	HBO	Married
15	M	35	University	Married	15	M	32	HBO	Married

Appendix B - Well-being – Autonomy/Competence/Relatedness (T0 + T2)

Antwoordmogelijkheden:

*Volledig mee oneens * Oneens * Enigszins oneens * Neutraal * Enigszins eens * Eens * Volledig mee eens.*

1. Ik voel me vrij om zelf te bepalen hoe ik mijn leven leid.

2. Mensen met wie ik omga vind ik echt aardig.

3. Vaak voel ik me niet erg competent.

4. Ik voel me onder druk staan in mijn leven.

5. Mensen die ik ken zeggen mij dat ik goed ben in wat ik doe.

6. Ik kan overweg met de mensen met wie ik in contact kom.

7. Ik ben redelijk op mezelf en heb niet veel sociale contacten.

8. Over het algemeen voel ik me vrij om mijn ideeën en meningen te uiten.

9. Ik beschouw de mensen met wie ik regelmatig contact heb als mijn vrienden.

10. Ik ben recentelijk in staat geweest om interessante nieuwe vaardigheden te leren.

11. In mijn dagelijks leven moet ik vaak doen wat me wordt opgedragen.

12. Mensen in mijn leven geven om mij.

13. Meestal haal ik voldoening uit datgene wat ik doe.

14. Mensen met wie ik dagelijks contact heb, houden doorgaans rekening met mijn gevoelens.

15. In mijn leven krijg ik niet vaak de kans om te laten zien hoe bekwaam ik ben.

16. Er zijn niet veel mensen waar ik 'close' mee ben.

17. Ik heb het gevoel dat ik vaak mezelf kan zijn in mijn dagelijkse situaties.

18. De mensen met wie ik regelmatig omga, schijnen mij niet erg aardig te vinden.

19. Ik voel me vaak niet erg bekwaam.

20. Er zijn niet veel mogelijkheden voor mij om zelf te bepalen hoe ik zaken aanpak in mijn dagelijks leven.

21. Doorgaans zijn mensen best vriendelijk tegen mij.

Bronnen:

De gebruikte vragen zijn een vertaling van de gevalideerde vragenlijst: 'Basic Psychological Needs Scale' (Deci & Ryan, 2000). De Nederlandse versie is van Waringa en Naaborg (2013).

• Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum Publishing Co.

• Deci, E. L., & Ryan, R. M. (2000). *The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior.* Psychological Inquiry, 11, 227-268.

Master Thesis - HRS - Manon van de Wiel

Appendix C - Goals (T0)

1. Mijn doelstelling voor het coachtraject is:

………

………

2. Kunt u op een schaal van 0 tot 10 aangeven waar u op dit moment staat ten opzichte van uw doel? De 10 staat voor de situatie waarin u het doel volledig heeft behaald en de 0 staat voor de situatie waarin nog niets van het doel is gerealiseerd. Ik geef mezelf een: 0 1 2 3 4 5 6 7 8 9 10

3. Kunt u op een schaal van 0 tot 10 aangeven hoe **gemotiveerd** u bent om dit doel te behalen? De 10 staat voor: `Ik heb er veel voor over om het doel te bereiken´ en een 0 staat voor: `Ik heb er niets voor over´. Ik geef mezelf een: 0 1 2 3 4 5 6 7 8 9 10

4. Kunt u op een schaal van 0 tot 10 aangeven hoeveel **vertrouwen** u heeft in het behalen van dit doel? De 10 staat voor: `Ik heb er veel vertrouwen in dat het me gaat lukken´ en een 0 staat voor: `Ik heb er geen enkel vertrouwen in´. Ik geef mezelf een: 0 1 2 3 4 5 6 7 8 9 10

• Goals (T1+T2)

1a: Mijn doelstelling voor het coachtraject is:
{*Automatische weergave van eerder gegeven antwoord(en)}*.

Is deze doelstelling nog steeds relevant?
() Ja {ga door naar 1b}
() Nee {ga door naar 'Toevoegen nieuwe doelstelling' of naar vraag …}

1b. Eerder tijdens het coachtraject gaf u uzelf op de volgende vraag: "Kunt u op een schaal van 0 tot 10 aangeven waar u op dit moment staat ten opzichte van uw doel?" **het cijfer:** {*Automatische weergave van cijfer zoals eerder gegeven}*.

Welk cijfer zou u zichzelf nu geven waarbij de 10 staat voor de situatie waarin u het doel volledig heeft behaald en de 0 staat voor de situatie waarin er nog niets van het doel is gerealiseerd. Ik geef mezelf nu een: 0 1 2 3 4 5 6 7 8 9 10

Master Thesis - HRS - Manon van de Wiel

1c. Eerder tijdens het coachtraject gaf u uzelf op de volgende vraag: "Kunt u op een schaal van 0 tot 10 aangeven hoe **gemotiveerd** u bent om dit doel te behalen?" **het cijfer:** {*Automatische weergave van cijfer zoals eerder gegeven}*.

Welk cijfer zou u zichzelf nu geven waarbij de 10 staat voor: "Ik heb er veel voor over om het doel te bereiken" en een 0 staat voor: "Ik heb er niets voor over". Ik geef mezelf nu een: 0 1 2 3 4 5 6 7 8 9 10

1d. Eerder tijdens het coachtraject gaf u uzelf op de volgende vraag: "Kunt u op een schaal van 0 tot 10 aangeven hoeveel **vertrouwen** u heeft in het behalen van dit doel?" **het cijfer:** {*Automatische weergave van cijfer zoals eerder gegeven}*.

Welk cijfer zou u zichzelf nu geven waarbij de 10 staat voor: "Ik heb er veel vertrouwen in dat het me gaat lukken" en een 0 staat voor: "Ik heb er geen enkel vertrouwen in". Ik geef mezelf nu een: 0 1 2 3 4 5 6 7 8 9 10

1e. Kunt u op een schaal van 0 tot 10 aangeven in hoeverre u **zelfstandig verder kunt** gaan met het realiseren van deze doelstelling? De 10 staat voor: "Ik heb verder geen hulp meer nodig want kan zelfstandig verder" en een 0 staat voor: "Ik heb voorlopig nog hulp nodig want ik weet helemaal niet hoe ik verder moet". Ik geef mezelf een: 0 1 2 3 4 5 6 7 8 9 10

Bronnen:
De gebruikte vragen zijn samengesteld door de NOBCO op basis van de praktijkervaring en de volgende literatuur:
• Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey.* American Psychologist, 57, 705 – 717.
•Spence, G.B. (2007). *GAS powered coaching: Goal Attainment Scaling and its use in coaching research and practice.* International Coaching Psychology Review. Vol. 2 No. 2.
• Visser, C. & Schlundt Bodien, G. (2009) *Doen wat werkt: Oplossingsgericht Werken, Coachen En Managen.* Duuren Media.

Appendix D - Relationship (T0 + T1)

Antwoordmogelijkheden:

*Nooit * Zelden * Af en toe * Soms * Vaak * Erg vaak * Altijd*

1. Ik denk dat mijn coach me aardig vindt.
2. Ik heb er vertrouwen in dat mijn coach in staat is om mij te helpen.
3. Ik heb het gevoel dat mijn coach me waardeert.
4. Mijn coach en ik vertrouwen elkaar.
5. Mijn coach en ik zijn het eens over de stappen die gezet moeten worden om mijn situatie te verbeteren.
6. Mijn coach en ik hebben allebei vertrouwen in de zinvolheid van waar wij momenteel mee bezig zijn.
7. We zijn het eens over wat belangrijk is voor mij om aan te werken.
8. Ik denk dat onze werkwijze de juiste is om mijn ontwikkeling te ondersteunen.
9. Ik heb twijfels over wat we proberen te bereiken.
10. Mijn coach en ik werken toe naar doelen die we samen overeengekomen zijn.
11. Mijn coach en ik hebben verschillende ideeën over wat ik nodig heb voor mijn ontwikkeling.
12. We hebben samen een goed inzicht ontwikkeld in het soort veranderingen dat goed voor mij zou zijn.

Bronnen:

De gebruikte vragen zijn een vertaling van de gevalideerde vragenlijst 'Work Alliance Inventory – Coaching (WAI-C)' van Baron & Morin (2001). Deze vragenlijst is gebaseerd op de ' Work Alliance Inventory, WAI, client version' van Horvath & Greenberg (1994) om de relatie tussen een therapeut en cliënt in kaart te brengen. Baron & Morin hebben deze vragenlijst aangepast voor de coaching context. De Nederlandse versie (WAI-C-D) is van Waringa, Ribbers en Naaborg (2013).

• Baron, L. & Morin, L. (2009). The Coach-Coachee Relationship in Executive Coaching: A Field Study. *Human Resource Development Quarterly 20.1,* 85-106.
•Horvath, A.O. & Greenberg, L.S. (Eds.). (1994). *The working alliance: Theory, research, and practice.* New York: John Wiley & Sons.

Appendix E - Motivation and Expectations (T0)

Antwoordmogelijkheden:

*Volledig mee oneens * Oneens * Enigszins oneens * Neutraal * Enigszins eens * Eens * Volledig mee eens.*

1.   Ik wil gecoacht worden omdat ik het erg leuk vind om te doen.
2.   Ik wil gecoacht worden omdat het mijn levensdoelen helpt behalen.
3.   Ik wil gecoacht worden omdat het mijn carrièreplannen helpt vervullen.
4.   Ik wil gecoacht worden omdat het bij mijn persoonlijke waarden past.
5.   Ik wil gecoacht worden omdat ik dan grotere kans maak op promotie.
6.   Ik wil gecoacht worden om mijn persoonlijke productiviteit te verhogen.
7.   Ik wil gecoacht worden om beter om te leren gaan met lastige situaties.

Bronnen:

De gebruikte vragen zijn geïnspireerd op 'The Learning Transfer System Inventory (LTSI)' van Holton, Bates & Ruona (2000) en door de NOBCO aangepast voor de coaching context.

• Holton III, E. F., Bates, R. A., % Ruona, W. E. A. (2000). *Development of a Generalized Learning System Inventory.* Human Resource Development Quarterly, 11(4), p. 333 – 360.

Appendix F - Mindset (T0+T2)

Antwoordmogelijkheden:

*Volledig mee oneens * Oneens * Enigszins oneens *Enigszins eens * Eens * Volledig mee eens ***

1. Wat voor persoon iemand is, is iets heel wezenlijks, waar je niet veel aan kunt veranderen.
2. Mensen kunnen dingen op een andere manier gaan aanpakken, maar hun meest wezenlijke karaktereigenschappen kan je niet echt veranderen.
3. Iedereen heeft een bepaalde persoonlijkheid, en daar kunnen ze niet echt veel aan veranderen.
4. Hoe vervelend ik het ook vind om toe te geven, je kunt gewoontes niet veranderen. Mensen kunnen hun meest wezenlijke eigenschappen niet echt aanpassen.
5. Iedereen, wie dan ook, kan zijn meest wezenlijke karaktereigenschappen in belangrijke mate veranderen.
6. Mensen kunnen in belangrijke mate veranderen wat voor type persoon ze zijn.
7. Wat voor type persoon iemand ook is, hij/zij kan altijd in sterke mate veranderen.
8. Mensen kunnen zelfs hun meest wezenlijke eigenschappen veranderen.

Bronnen:

De gebruikte vragen zijn een vertaling van de gevalideerde vragenlijst: 'Implicit Person Theory Questionnaire (IPT)', (Levy & Dweck, 1998). De Nederlandse versie (IPT-D), is van Ribbers, Waringa & Naaborg (2013).

• Heslin, P. A., Vandewalle, D., & Latham, G. P. (2006). Keen to help? Managers' implicit person theories and their subsequent employee coaching. Personnel Psychology, 59(4), 871-902.

• Levy, S., & Dweck, C.S. (1998). Trait-focused and process-focused social judgment. *Social Cognition (Special Issue: Implicit Theories and Social Judgment), 16*, 151-172.

• Levy, S., Stroessner, S., & Dweck, C.S. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology, 74*, 1421-1436.

• Sue-Chan, C., Wood, R.E., & Latham, G.P. (2012). Effect of a coach's regulatory focus and an Individual's implicit person theory on individual performance. *Journal of Management, 33*(3), 809-835.

Appendix G - Results Paired-Samples T-Tests

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	wellbeing1	106,7333	15	12,42961	3,20931
	wellbeing2	111,4000	15	13,05374	3,37046
Pair 2	autonomy1	33,6667	15	5,23268	1,35107
	autonomy2	36,4667	15	5,15290	1,33047
Pair 3	competence1	29,8667	15	5,39665	1,39341
	competence2	32,3333	15	4,90869	1,26742
Pair 4	relatedness1	43,2000	15	4,95984	1,28062
	relatedness2	42,6000	15	6,42317	1,65846

Paired Samples Test

		Paired Differences			95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	wellbeing1 - wellbeing2	-4,66667	7,88005	2,03462	-9,03049	-,30284	-2,294	14	,038
Pair 2	autonomy1 - autonomy2	-2,80000	4,31277	1,11355	-5,18833	-,41167	-2,514	14	,025
Pair 3	competence1 - competence2	-2,46667	2,94877	,76137	-4,09964	-,83369	-3,240	14	,006
Pair 4	relatedness1 - relatedness2	,60000	3,06594	,79162	-1,09786	2,29786	,758	14	,461

Master Thesis - HRS - Manon van de Wiel

Appendix H1 - Results Mixed Within-Between Subjects ANOVA

Well-being

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
pre_post_wellbeing	Pillai's Trace	,049	1,444[b]	1,000	28,000	,240	,049	1,444	,213
	Wilks' Lambda	,951	1,444[b]	1,000	28,000	,240	,049	1,444	,213
	Hotelling's Trace	,052	1,444[b]	1,000	28,000	,240	,049	1,444	,213
	Roy's Largest Root	,052	1,444[b]	1,000	28,000	,240	,049	1,444	,213
pre_post_wellbeing * group	Pillai's Trace	,231	8,421[b]	1,000	28,000	,007	,231	8,421	,800
	Wilks' Lambda	,769	8,421[b]	1,000	28,000	,007	,231	8,421	,800
	Hotelling's Trace	,301	8,421[b]	1,000	28,000	,007	,231	8,421	,800
	Roy's Largest Root	,301	8,421[b]	1,000	28,000	,007	,231	8,421	,800

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	770440,017	1	770440,017	3720,178	,000	,993	3720,178	1,000
group	1083,750	1	1083,750	5,233	,030	,157	5,233	,598
Error	5798,733	28	207,098					

Master Thesis - HRS - Manon van de Wiel

Appendix H2 - Results Mixed Within-Between Subjects ANOVA

Autonomy

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
pre_post_autonomy	Pillai's Trace	,084	2,580[b]	1,000	28,000	,119	,084	2,580	,342
	Wilks' Lambda	,916	2,580[b]	1,000	28,000	,119	,084	2,580	,342
	Hotelling's Trace	,092	2,580[b]	1,000	28,000	,119	,084	2,580	,342
	Roy's Largest Root	,092	2,580[b]	1,000	28,000	,119	,084	2,580	,342
pre_post_autonomy * group	Pillai's Trace	,180	6,161[b]	1,000	28,000	,019	,180	6,161	,669
	Wilks' Lambda	,820	6,161[b]	1,000	28,000	,019	,180	6,161	,669
	Hotelling's Trace	,220	6,161[b]	1,000	28,000	,019	,180	6,161	,669
	Roy's Largest Root	,220	6,161[b]	1,000	28,000	,019	,180	6,161	,669

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	81328,017	1	81328,017	2138,737	,000	,987	2138,737	1,000
group	183,750	1	183,750	4,832	,036	,147	4,832	,565
Error	1064,733	28	38,026					

Master Thesis - HRS - Manon van de Wiel

Appendix H3 - Results Mixed Within-Between Subjects ANOVA

Competence

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
pre_post_competence	Pillai's Trace	,060	1,784[b]	1,000	28,000	,192	,060	1,784	,252
	Wilks' Lambda	,940	1,784[b]	1,000	28,000	,192	,060	1,784	,252
	Hotelling's Trace	,064	1,784[b]	1,000	28,000	,192	,060	1,784	,252
	Roy's Largest Root	,064	1,784[b]	1,000	28,000	,192	,060	1,784	,252
pre_post_competence * group	Pillai's Trace	,289	11,366[b]	1,000	28,000	,002	,289	11,366	,902
	Wilks' Lambda	,711	11,366[b]	1,000	28,000	,002	,289	11,366	,902
	Hotelling's Trace	,406	11,366[b]	1,000	28,000	,002	,289	11,366	,902
	Roy's Largest Root	,406	11,366[b]	1,000	28,000	,002	,289	11,366	,902

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	62920,817	1	62920,817	1754,997	,000	,984	1754,997	1,000
group	98,817	1	98,817	2,756	,108	,090	2,756	,361
Error	1003,867	28	35,852					

Appendix H4 - Results Mixed Within-Between Subjects ANOVA

Relatedness

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
pre_post_relatedness	Pillai's Trace	,022	,630[b]	1,000	28,000	,434	,022	,630	,120
	Wilks' Lambda	,978	,630[b]	1,000	28,000	,434	,022	,630	,120
	Hotelling's Trace	,022	,630[b]	1,000	28,000	,434	,022	,630	,120
	Roy's Largest Root	,022	,630[b]	1,000	28,000	,434	,022	,630	,120
pre_post_relatedness * group	Pillai's Trace	,003	,093[b]	1,000	28,000	,762	,003	,093	,060
	Wilks' Lambda	,997	,093[b]	1,000	28,000	,762	,003	,093	,060
	Hotelling's Trace	,003	,093[b]	1,000	28,000	,762	,003	,093	,060
	Roy's Largest Root	,003	,093[b]	1,000	28,000	,762	,003	,093	,060

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	116776,817	1	116776,817	2964,774	,000	,991	2964,774	1,000
group	88,817	1	88,817	2,255	,144	,075	2,255	,305
Error	1102,867	28	39,388					

Master Thesis - HRS - Manon van de Wiel

Appendix I - Data Matrix

Matrix with results from the questionnaire 'goals' (experimental group)

Resp.	Sex	Age	Education	Goal(s)	Current status T0 T1 T2	Motivation T0 T1 T2	Confidence T0 T1 T2	Independency T0 T1 T2
1	F	51	HAVO	Handvatten krijgen om medewerkers in een sterk en continue veranderende organisatie mee in beweging te krijgen.	4 5 7	9 9 -	7 7 -	- 9 9
2	F	35	University	Binnen bestaand werk 'drivers' te zien/ vinden die mij motiveren en helpen zaken af te maken.	2 7 9	9 9 -	7 8 -	- 8 8
				Op een productieve en efficiënte manier mondeling communiceren (luisteren vs. gehoord worden).	5 7 8	8 8 -	7 8 -	- 8 9
				Bewust worden hoe ik over kom, wil overkomen en leren hoe ik dit kan bereiken.	3 6 8	9 9 -	8 8 -	- 7 9
				Bestuurlijke sensitiviteit verbeteren.	7 8 9	8 8 -	8 8 -	- 7 9

#		Age	Edu	Goal				
3	M	50	HBO	Op zoek naar een nieuwe baan.	5	10	9	-
					6	10	9	6
					9	-	-	8
				Mijn communicatie kort en bondig kunnen voeren	6	9	9	-
					7	9	8	7
					8	-	-	7
				Mijn sterke en minder sterke punten helder verwoorden en verbeteren.	7	9	9	-
					8	9	9	8
					8	-	-	8
4	M	52	HBO	Meer leiderschap tonen.	6	8	8	-
					7	9	8	5
					8	-	-	7
				Iedere situatie neutraal en als nieuwe situatie benaderen.	6	9	8	-
					7	9	9	7
					8	-	-	8
				Om constanter te zijn in niveau van vraagstelling en ontdekken wat de drijfveren zijn om voor mijn vragen.	6	9	7	-
					7	9	8	7
					8	-	-	9
5	M	33	MBO	Om mijn ergernissen van me af te kunnen spreken en daarbij mezelf en de ander helpen om tot een beter resultaat te komen.	3	8	7	-
					5	8	8	4
					6	-	-	5

6	M	52	University	Leren en laten leren van mijn medewerkers van het geven van constructieve feedback op inhoud, relatie en procedure om zo uit de weerstanden en conflicten van de dramadriehoek te komen en te blijven.	7 7 8	10 10 -	8 8 -	- 4 5
7	F	37	University	Achterhalen wat voor werkomgeving/werk past bij wie ik ben en mijn capaciteiten.	3 9 10	8 8 -	8 8 -	- 9 9
8	M	47	MBO	Leren om assertiever te worden; aan andere mensen duidelijk laten weten wat ik wel en niet kan en wil, vaker nee zeggen.	4 8 7	8 9 -	9 9 -	- 8 8
				Leren om niet altijd voor anderen te denken en te handelen, maar ook doen wat ik zelf graag wil.	5 - -	9 - -	9 - -	- - -
				Leren om meer gestructureerd te werken en de juiste prioriteiten te stellen, waarbij ik mij ook houd aan de met mijzelf gemaakte afspraken.	4 6 7	9 9 -	9 9 -	- 7 7
9	M	37	HBO	Ontwikkelen van eigen mensgeoriënteerde/sociale kant/eigenschappen om op verbindende wijze plezierig samen te kunnen werken en doelen te bereiken met een hoog energiegehalte voor ieder die daarbij betrokken is.	5 6 7	9 9 -	8 7 -	- 6 7
10	M	45	HBO	Het makkelijker aanspreken van collega's op zaken die anders of beter moeten lopen.	3 5	10 10	7 8	- 6

					5	-	-	5
				Helder en duidelijk zijn in het aansturen van de afdeling zodat de collega's echt begrijpen wat er van hem of haar wordt verwacht.	5	10	8	-
					6	10	8	7
					7	-	-	8
				Een inspirerende manager zijn waarbij ik dusdanig iets overbreng dat de collega's hier ook enthousiast over worden, aansporen tot meedenken in het betreffende onderwerp om zodoende ook hun eigen competenties tot uiting te laten komen.	5	10	8	-
					5	10	8	5
					6	-	-	6
				Vanuit rust in mijn hoofd de werkzaamheden beter verdelen over de afdeling.	5	10	8	-
					6	10	8	6
					7	-	-	7
				Een leidinggevende zijn die een luisterend oor heeft voor de eventuele problemen van de medewerkers, die de medewerkers coacht bij het vinden van oplossingen en die iedereen het gevoel geeft een belangrijke schakel in het geheel te zijn.	3	10	7	-
					5	10	8	6
					6	-	-	6
				Een leidinggevende zijn de rustig en kalm blijft wanneer het spitsuur is of als er een "calamiteit" ontstaat.	3	10	7	-
					6	10	8	7
					6	-	-	7
11	F	40	University	Rust in gesprekken en gedachten door meer op gevoel te durven vertrouwen (minder argumenteren, analyseren).	5	10	8	-
					6	9	8	6

					6	-	-	6
				Vertrouwen hebben in mijn eigen intuïtieve voorstellen, ook wanneer deze niet meteen geaccepteerd worden.	7	8	8	-
					-	-	-	-
					-	-	-	-
				Meer luisteren, bewust zijn van de beleving van de ander.	6	8	8	-
					6	9	8	7
					7	-	-	7
				Leren omgaan met emoties bij mezelf en anderen en de impact van deze emoties op discussies/besluitvorming.	2	10	7	-
					4	10	8	6
					5	-	-	6
12	F	53	MBO	Lichaam en geest in balans krijgen en zelfvertrouwen vergroten.	5	8	6	-
					8	10	10	7
					9	-	-	6
13	F	39	HBO	Met meer zelfvertrouwen leiding geven.	6	10	8	-
					7	10	9	7
					8	-	-	8
				Daarin mijn eigen identiteit behouden, met mijn eigen normen en waarden.	7	10	8	-
					8	10	8	8
					8	-	-	8
				Leiding geven vanuit kracht en niet vanuit macht.	7	10	8	-
					8	10	8	8
					8	-	-	8

				Beter (krachtiger, effectiever, minder laten leiden door) omgaan met emoties, niet alleen van mijzelf, maar ook die van een ander. Bijvoorbeeld bij het geven en/of ontvangen van positieve dan wel negatieve feedback.	5 7 8	10 10 -	8 8 -	- 7 8
14	F	48	HBO	Duidelijk nee kunnen zeggen.	6 7 8	8 7 -	7 8 -	- 7 8
				Iemand aanspreken op gedrag i.p.v. me te ergeren.	5 7 8	8 8 -	7 8 -	- 7 8
				Een probleem laten waar het hoort i.p.v. het over te nemen.	5 7 8	8 7 -	8 8 -	- 7 8
				Van medewerkers op aan kunnen.	4 6 7	8 7 -	7 7 -	- 7 7
				Me minder schuldig voelen, relaxter en een lagere bloeddruk.	4 7 8	9 8 -	7 7 -	- 7 8
				Positiever tegenover het bedrijf/werk/leven staan.	5 7 7	8 7 -	8 7 -	- 7 8

| 15 | M | 35 | University | Vanuit een innerlijke overtuiging mijn realistische levens- en carrièredoelen weer scherp te krijgen en om vanuit leiderschap over mezelf een passende baan te vinden. | 4 8 7 | 9 10 - | 9 10 - | - 10 9 |

Appendix J - Hope (questionnaire for future research)

1. = Definitely False, 2. = Mostly False, 3. = Somewhat False, 4. = Slightly False, 5. = Slightly True, 6. = Somewhat True, 7. = Mostly True, 8. = Definitely True

1. I can think of many ways to get out of a jam.

2. I energetically pursue my goals.

3. I feel tired most of the time.

4. There are lots of ways around any problem.

5. I am easily downed in an argument.

6. I can think of many ways to get the things in life that are important to me.

7. I worry about my health.

8. Even when others get discouraged, I know I can find a way to solve the problem.

9. My past experiences have prepared me well for my future.

10. I've been pretty successful in life.

11. I usually find myself worrying about something.

12. I meet the goals that I set for myself.

Scoring: Items 2, 9, 10, and 12 make up the agency subscale. Items 1, 4, 6, and 8 make up the pathway subscale.

Researchers can either examine results at the subscale level or combine the two subscales to create a total hope score.

Reference:

• Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.