

Training career adaptability to facilitate a successful school-to-work transition

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ABSTRACT

The transition from school to work is one of the most critical steps in graduates' careers, as it can determine vocational outcomes and future career success. Yet, these newcomers to the labor market often take longer than regular job seekers to find a suitable job, are more likely to experience a job mismatch and to suffer from underemployment. In this study, we proposed that career adaptability might help remedy this problem. We therefore developed a training aimed at providing graduates with career adaptability resources, with the assumption that this may foster training-participants' later career adaptability and employment quality. A longitudinal field quasi-experiment compared the development of each career adaptability dimension between a training group ($n=32$) and a control group ($n=24$) over three points in time (pre-training measurement, post-training measurement and follow-up measurement six months later). Repeated measures analyses showed an overall increase in concern, control and curiosity within the training group, whereas there was no increase (concern) or even an overall decrease (control and curiosity) within the control group. Consequently, the training succeeded in enhancing participants' control and curiosity in the long run. Furthermore, among participants who had found employment half a year later, training participants reported higher employment quality than did members of the control group. In sum, results show that providing graduates with career adaptability resources can raise their chances on finding a qualitatively good job.

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1. Introduction

The transition from school to work is an important phase for graduates. Leaving student life behind and beginning a new life as a full-time employee requires important career-related decisions that can determine graduates' future career success (cf. Saks, in press). Unfortunately, with little prior work experience or professional networks, graduates often have difficulties finding suitable employment when entering the labor market. Particularly during economically hard times, these newcomers to the labor market are among the first to suffer. Since the onset of the current economic crisis, the unemployment rate among newcomers is about twice as high as it is among regular job seekers (BLS, 2011; Eurostat, 2012) and it can take twice as long for newcomers to find a job than in economically better times (ILO, 2011). Moreover, newcomers graduating in bad economies are more likely to experience a job mismatch and to suffer from underemployment than those who graduate in a better economy (Kahn, 2010).

Although one would expect a job of low quality to be better than no job at all, the negative consequences of underemployment are rather similar to those of unemployment in terms of lower well-being, lower life satisfaction and more physical and psychological strain (e.g. Feldman, 1996; Kinicki, Prussia, & McKee-Ryan, 2000; McKee-Ryan & Harvey, 2011). Even more so, poor job quality impairs career satisfaction, career-enhancing behaviors and career prospects (cf. McKee-Ryan & Harvey, 2011). Finding high-quality employment is particularly important during the school-to-work transition, as one's first job can determine future vocational outcomes and career success (Ng & Feldman, 2007; Richards, 1984a, 1984b). When graduates fail to successfully

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move from school to work, it can harm themselves, the organization they end up in, as well as society overall in terms of costs and problems related to unemployment (Morrison, 2002). It is thus essential for graduates during the pursuit of their first employment to be able to prevent such mismatches, low-quality jobs and wretched career starts.

One way of enhancing a successful school-to-work transition is by means of proper career preparation, since a better preparation can help individuals to successfully seek and find employment, enhancing career outcomes (e.g. Creed & Hughes, *in press*; Hirschi, Niles, & Akos, 2011; Jepsen & Dickson, 2003; Koivisto, Vinokur, & Vuori, 2011; Saks & Ashforth, 2002). However, the reality of a bad economy can interfere with graduates' success in preparing to enter the labor market: graduates may easily become discouraged in the pursuit of their career goals (ILO, 2011), forestalling the acquisition of essential career development skills needed to ensure career success in a world of work characterized by rapid and unpredictable changes (Savickas, 1997; Sung, Turner, & Kaewchinda, *in press*). Given these threats to a successful start of one's career, it would be helpful to provide newcomers with the necessary resources to cope with the transition from school to work in order to prevent underemployment, prolonged unemployment and negative consequences for their further careers. These resources, or the readiness to take advantage of opportunities and deal with transitions, barriers and setbacks, are reflected in career adaptability (Hall, 2004; Savickas & Porfeli, 2012).

Career adaptability, defined as the "readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by the changes in work and work conditions" (Savickas, 1997, p. 254), is a central construct in career preparation (Skorikov, 2007). It comprises four psychosocial resources or transactional competencies (Savickas & Porfeli, 2012): looking ahead to one's future (*concern*), knowing what career to pursue (*control*), looking around at options (*curiosity*), and having the self-efficacy to undertake activities needed to achieve career goals (*confidence*). Career adaptability resources "shape adaptive strategies and actions aimed at achieving adaptation goals" (Savickas & Porfeli, 2012, p. 663) and thus help people to manage career transitions (Savickas, 2005). Central to these four resources is that they are viewed as competencies that can be gained (Savickas & Porfeli, 2012). Hence, career adaptability resources are expected to be malleable rather than fixed.

Engaging in adaptive behaviors before career transitions can serve as a preparation that fosters job seekers' subsequent employment quality (Koen, Klehe, Van Vianen, Zikic, & Nauta, 2010) and career success (Hirschi, 2010). In the face of unemployment, perceiving a sense of competence, examining one's career options and planning one's career increases the odds of finding suitable employment (Zikic & Klehe, 2006). Research on career adaptability has repeatedly shown that adolescents higher in career adaptability are more successful in mastering vocational transitions (Creed, Muller, & Patton, 2003; Germeijs & Verschueren, 2007; Patton, Creed, & Muller, 2002), have a lower chance of prolonged unemployment (Fouad, 2007), and make better career-related choices (Hirschi et al., 2011).

In sum, career adaptability can enhance the chance on finding a suitable job, thereby enhancing career success and even well-being (Hartung & Taber, 2008; Hirschi, 2010; Skorikov, 2007). Promoting career adaptability may thus help university graduates to find a suitable job, even during times of high economic uncertainty. To date, however, no research has examined whether career adaptability resources can actually be promoted. That is, no research has successfully developed an intervention to promote career adaptability nor investigated its impact in the long run, despite an often expressed call in careers research that 'researchers should investigate the impact of an intervention designed to improve people's adaptability' (Verbruggen & Sels, 2008, p. 326), that 'career workshops should include components that focus on career planning and development (e.g. career exploration and career planning)' (Saks, *in press*) and that 'more attention should be devoted to long-term changes occurring after such intervention' (Savickas et al., 2009, p. 248). The absence of a successful career adaptability intervention has even led career scholars to question whether career adaptability is indeed, as theorized (e.g., Savickas, 1997, 2005), a dynamic and learnable construct rather than a fairly stable or even innate personality trait (e.g. Chan, 2000; Griffin & Hesketh, 2003; Verbruggen & Sels, 2008). In this study, we therefore developed a training aimed at enhancing career adaptability resources to assist university graduates in their search for suitable employment during the transition from school to work. By doing so, we do not only aim to create a theory-driven training that contributes to graduates' career adaptability and later employment quality, but we also aim to answer the question as to whether career adaptability is, indeed, a malleable construct.

1.1. Career adaptability

Career adaptability is a psychosocial construct that denotes the resources individuals need to successfully manage current and anticipated career transitions (Savickas, 1997, 2005). These resources function as self-regulation strategies that enable individuals to broaden, refine and eventually implement their self-concepts in occupational roles, thereby creating their work lives and building their careers. The career adaptability resources comprise four dimensions: concern, control, curiosity and confidence (Savickas, 2005).

1.1.1. Career concern

The first resource of career adaptability is career concern, which helps people to look ahead and prepare for the future. The awareness of one's future career prompts people to think about their vocational past, future options and preferences concerning their careers (Fouad & Bynner, 2008). Central to career concern is career planning, which, among other things, induces the ability to link present activities to the desired future (Savickas, 2005).

1.1.2. Career control

The second resource of career adaptability, career control, enables people to take control over their future by being responsible and conscientious in making career-related decisions. The belief that one can have control over one's career helps to become more decisive when it comes to career related choices (Hartung, Porfeli, & Vondracek, 2008). Consequently, career control is expressed in decisiveness and competence in decision-making, which in turn prompt career curiosity about possible selves and alternative futures.

1.1.3. Career curiosity

The third resource of career adaptability comprises exploring one's opportunities and thinking about the fit between the self and different environments, vocational roles and future scenarios. Career curiosity is expressed in exploring one's own knowledge, skills and abilities, clarifying one's values, wielding different information seeking strategies, discussing extrinsic versus intrinsic rewards of alternative options and interpreting occupational information. As such, career curiosity arguably helps people form a realistic image of themselves and their career options. This knowledge facilitates subsequent choices that match the self to occupational situations (Savickas, 2005).

1.1.4. Career confidence

The fourth resource of career adaptability is career confidence, people's perceived ability to solve problems and to overcome obstacles in order to pursue their career aspirations. People with high career confidence are less likely to shy away from difficult career-related situations but are more likely to engage in active problem solving. According to Savickas (2005), skill in career related problem solving leads directly to engaging and mastering vocational tasks and occupational transitions.

The degree of someone's career adaptability does not only depend on the possession of each of the four resources, but also much more on the ability to use each of these resources and to engage in each associated activity. Thus, in order to increase one's career adaptability resources, one may focus on increasing one's ability to plan, to make decisions, to explore and to solve problems (Hartung et al., 2008; Savickas, 2005; Savickas, Briddick, & Watkins, 2002).

1.2. Increasing career adaptability

Ever since Parsons introduced *vocational guidance* and *true reasoning* (i.e. decision making based on matching personal traits with job factors, cf. Parsons, 1909), career interventions aimed "to enhance a person's career development or to enable that person to make more effective career decisions" (Spokane, 1991, p. 22). This has, however, mainly been attempted through repeated counseling sessions or assessments and reflection (e.g., the vocational preference inventory, the career beliefs inventory, the career maturity inventory, and the career style interview, cf. Herr, 2001). Such career interventions may not always suffice for acquiring and utilizing the resources necessary for career success. Additionally, it is questionable whether career interventions from over a decade ago are applicable in today's society. Since then, the world of work has markedly changed, which challenges research and practice to find new paradigms and scientific bases for successful career interventions (Herr, 2001). The construct of career adaptability as depicted by Savickas (2005) and Savickas and Porfeli (2012) seems to provide a fruitful scientific base in the dynamic world of work, as it enables people to adapt to changing career-related circumstances.

To date, however, research on increasing career adaptability through training is rare, and it remains unclear whether interventions aimed at providing career adaptability resources will translate into higher career adaptability and subsequent employment quality. According to Savickas et al. (2009), studying the actual effectiveness of interventions designed for enhancing people's planning, decision making, exploration and problem solving is particularly important for a successful development of future career adaptability interventions. Yet, to the best of our knowledge, no previous studies have attempted to test these combined interventions in practice.

In this study, we therefore developed a theory-driven training aimed at increasing the inclusive construct of career adaptability. We based the content of the training on Savickas' (2005) recommendation to incorporate exercises to acquire and utilize each career adaptability resource by planning, decision-making, exploration and problem solving. Additionally, we based the structure of the training on Brown and Ryan Krane's (2000) and Brown et al.'s (2003) recommendation to include critical ingredients that improve the effectiveness of career intervention, such as the use of a written plan to organize training content, individualized interpretations of the training material, and in-session information on the world of work (see *Methods* for further details). The training developed for this study is unique in that it aims to provide participants with career adaptability resources by which they can effectively cope with the school-to-work transition, adapt to career related circumstances, and find high quality employment. Additionally, this training is the first to incorporate all career adaptability resources into one training, as has been suggested but not empirically tested in the past.

We conducted a field quasi-experiment among recent university graduates, examining their training related changes in career adaptability, as well as whether these changes remained stable over a period of six months. The latter is important as long-term effects have been largely overlooked in research designs assessing career interventions – although numerous authors have emphasized the importance of long-term impacts of career interventions (Heppner & Heppner, 2003; Perdrix, Stauffer, Masdonati, Massoudi, & Rossier, 2012). To summarize, because of the concept-driven design of the training we expect that:

Hypothesis 1. Compared to a control group, the training group will show an increase in career adaptability (in terms of career concern, control, curiosity and confidence), immediately after the training and six months later.

1.3. Career adaptability and employment quality

Conceptually, career adaptability should lead to higher quality employment. Employment quality has been equated by Saks and Ashforth (2002) with a good match between the person, the job, and the organization. Engaging in career adaptability activities such as planning, decision-making and exploration should facilitate the match between the self and the vocational environment and should thus lead to a higher employment quality, because it provides individuals with knowledge about their future possibilities, preferences, occupational choices and career goals (Savickas, 2005). In other words, given that engaging in career adaptability activities facilitates the match between the self and the vocational environment (Savickas, 2005) and that this match determines employment quality (Savickas, 1997; Super, 1990), career adaptability should foster employment quality.

Although empirical research on the role of career adaptability in predicting employment quality is limited, the few studies that have investigated this link support the notion that engaging in career adaptability can indeed improve subsequent employment quality. For example, past research has found that career planning fosters a successful and satisfying career (cf. Morrison & Hall, 2002). Additionally, Zikic and Klehe (2006) showed that engaging in career planning and exploration positively predicted reemployment quality and concluded that career adaptability plays a key role in building successful careers. Likewise, Koen et al. (2010) found that career adaptability was positively related to reemployment quality several months later and concluded that career adaptability can serve as an important preparatory mechanism in the reemployment process. Thus, university graduates' engagement in activities that enhance career adaptability will lead to higher quality employment as well. Considering that the training indeed enhances people's career adaptability, we expect that the career adaptability training contributes to the quality of the job graduates find. In sum, we propose that:

Hypothesis 2. Compared to a control group, the training group will show higher employment quality six months later.

2. Methods

2.1. Design and procedure

A three-wave longitudinal field quasi-experiment allowed us to compare the accomplishments of university graduates who received the career adaptability training (i.e. the training group) to graduates who did not receive the training (i.e. the control group). The sample consisted of students with a Bachelor's degree who were about to graduate or who had just graduated with a Master's degree from one of the largest universities in the Netherlands. Students received an invitation by e-mail via the university's career center from a renowned recruitment agency specialized in the recruitment and selection of university graduates. The training was introduced as a free job search preparation workshop at the recruitment agency's headquarters that additionally offered participants the chance to be selected for the agency's database of graduates. Although all training participants were included in the agency's database by default, none of them received further assistance in securing employment during the study. Participants could voice their interest in the training and subsequently had the possibility to sign up for one of three pre-selected dates. The training group was formed from participants who had voiced interest in the training and could attend the training on the selected dates. The control group was formed from participants who had voiced interest but could not attend the training on the selected dates and from comparable university students who were approached by e-mail solely to take part in a survey without the possibility to attend the training. Although assignments were not completely random, the training group and control group showed no differences in any of the variables assessed at Time 1. To check whether participants in the control group did not attend any other job search or career-related training that might have influenced our outcome measures of employment quality at Time 3, a question was used in the follow-up measurement that asked whether they had attended any training in the past six months. Three participants answered this question with 'yes' and were excluded from further analyses.

For both the training group and the control group, online questionnaires were used to assess demographics and participants' level of career adaptability one week before the training (Time 1), participants' level of career adaptability three days after the training (Time 2) and participants' level of career adaptability, their employment status and employment quality six months later (Time 3). Online questionnaires were distributed by email under the pretense of a simultaneous but unrelated study on the transition from school to work to assure that none of the participants were aware of the fact that the training itself was tested for scientific purposes.

2.2. Participants

A total of 93 participants took part in the study, from which 49.5% ($n = 46$) formed the training group and 50.5% ($n = 47$) formed the control group. All participants completed the pre-training measurement (Time 1) and the post-training measurement (Time 2), and 60.22% ($n = 56$) also completed the follow-up measurement six months later (Time 3). Among these, 57.14% ($n = 32$) were participants from the training group and 42.86% ($n = 24$) were participants from the control group. The sample of participants that had completed all three questionnaires consisted of 28 men (50%) and 28 women (50%) with an average age of 26.47 ($SD = 2.12$) years. Participants' study specialization was diverse with 25 different master programs represented.

2.3. Training

The structure and process of the training was based on the theoretical work by Brown and Ryan Krane (2000) and Brown et al. (2003) and the content of the training was based on suggestions for career adaptability interventions (Hartung et al., 2008; Savickas, 2002, 2005; Savickas et al., 2009).

2.3.1. Structure and process

The 1-day training, offered to up to 15 participants at a time with a total duration of 8.5 h, was given by two experienced trainers from the recruitment agency who knew about the training's purpose (enhance participants' career adaptability) but who were left blind to the research questions regarding the malleability of career adaptability and its impact on employment quality. The trainers followed a detailed step-by-step instruction manual to ensure maximal training integrity (see Table 1 for an overview of the training). The training followed a fixed structure and started with an introduction in which the trainers, participants and the training itself were introduced. In this introduction, the relevance of preparation at the start of one's career was stressed and participants were asked to reflect upon their current state of career preparation. Communicating the relevance and utility of a training early in the training design is important, since the perceived usefulness of training is one of the most important predictors of learning and thus of training effectiveness (Aguinis & Kraiger, 2009; Mathieu & Martineau, 1997). The introduction was followed by four sections of 1–2 h each in which each dimension of career adaptability was addressed with one or more exercises. At the closing session of the training, participants were guided to jointly discuss and solve anticipated problems concerning the next steps in their career preparation, after which the content of the whole training was reviewed. Thus, the training's closing session was especially designed to encourage participants to understand the causes of (potential) problems and mistakes, learn from these mistakes and come up with strategies to overcome them in the future. Engaging in such reflection facilitates transfer of training to future situations (Aguinis & Kraiger, 2009). In other words, this approach to prepare participants for overcoming career-related obstacles should help to enhance their career adaptability in a more sustainable way.

2.3.2. Sections

The training consisted of four sections (see Table 1) that consecutively targeted participants' knowledge of the self (Section 1; exercises 1 and 2), knowledge of the occupational environment (Section 2; exercises 3 and 4), and implementation of the self-concept into the occupational environment both on a general level (Section 3; exercise 5) and a concrete level (Section 4; exercise 6). Essentially, the order of these sections was designed to enhance participants' career adaptability by providing them with the resources needed to successfully manage their upcoming career transition from university to employment. In the first section, the focus mainly lays on career curiosity to give participants fundamental knowledge of their own values, given the fact that being driven by one's own values provides the best guidance in achieving psychological success in one's career (Hall, 2004). The second section was designed to enable participants to broaden and refine their self-concept, whereas the third and last section were designed to stimulate participants to implement their self-concepts in occupational roles by first focusing on a more general future plan (concern) and then deciding upon the most pressing and relevant steps to follow up on that plan (control).

Although the training design contained some overlap in the dimensions of career adaptability between sections, Sections 1 and 2 were mainly aimed at enhancing the associated activities of career curiosity (exploring possible selves and career options), whereas Sections 3 and 4 were mainly aimed at enhancing the associated activities of career concern (planning how to pursue those future options) and career control (increasing control over the future by deciding what options to pursue and when to do it). Career confidence (strengthening the confidence to pursue those options) was not explicitly targeted in a separate exercise, but was incorporated in the training throughout the different exercises via role modeling, anxiety reduction for career-related activities, success acknowledgement of personal and others' career-related experiences and discussing tactics to overcome possible obstacles (cf. Savickas, 2005).

Table 1

Contents of the training.

Section	Exercise	Dimension	Activity
Introduction	Welcome Personal reflection		
Section 1 Knowing the self	1. Card sort procedure	Curiosity	Exploration (self): personal values
	2. Interview of KSA's	Curiosity Confidence	Exploration (self): KSA's Problem solving: job interview role play
Section 2 Knowing the environment	3. Visualization	Curiosity	Exploration (self and environment): career interests and options
	4. Information gathering strategies	Control Curiosity	Decision-making: career options Exploration (environment): information-seeking strategies
Section 3 Implementation – general	5. Arrows	Concern	Planning: future use of strategies
Section 4 Implementation – concrete	6. Implementation–intention planning	Control	Decision-making: career options
		Concern	Planning: concrete actions and goals
Closing	Discuss action plan problems Evaluation	Control	Decision-making: decide upon action and goals
		Confidence	Problem solving: overcome possible obstacles

2.3.3. Section exercises

Section 1 focused on participants 'knowing themselves' and included two exercises. In exercise 1, participants explored their personal career-related values with a card sort procedure (cf. Brown et al., 2003). By choosing and sorting a maximum of 5 cards with career-related values on their relative importance, participants could gain clarity concerning the values that are personally important for them. Knowing these values is important in the process of knowing the self (Savickas, 2002), making career decisions (Judge & Bretz, 1992) and transitioning from school to work (Fouad, Cotter, & Kantamneni, 2009). After writing down their chosen values on a personal flap-over, exercise 2 asked participants to enact a job interview in dyads to further explore the self by discussing each other's knowledge, skills and abilities (Brown et al., 2003). Questions to initiate the conversation were derived from prevailing job interview questions, such as "which of your abilities do your friends think you can improve and why?" and "name three skills that are most important to develop in the light of your forthcoming occupational future". Thus, this exercise was directed at exploring the self, but also aimed to enhance participants' career confidence by reducing anxiety for career-related activities such as the job interview. The outcomes of the interview (i.e. current KSA's and KSA's to develop) were written down on the personal flap-over.

Section 2 of the training focused on participants 'knowing the environment' and included two further exercises. Exercise 3 was to visualize an ideal working day in order to explore career interests and to decide upon career options. Participants were instructed to close their eyes and were guided through a working day from start to end with instructions such as "imagine the building of your company – is it big, small, modern, old, in the center or in a business park?". Outcomes of the visualization were noted down individually on the personal flap-over and then discussed with the group (Brown & Ryan Krane, 2000; Reese & Miller, 2006). Exercise 4 was aimed at discussing past and future information seeking strategies for occupational aspirations (Savickas, 2005), using information and best-practice examples from the trainers, as well as personal experiences and future plans from the participants.

Section 3 of the training focused on implementing the outcomes of the earlier training exercises into a general plan. To that purpose, exercise 5 involved making a career plan using an arrow structure. Trainers first gave an example of their own career planning when they started working, after which participants had to make a stepwise planning of how their short-term career goals could lead to achieving their long-term career goals (Whiston, Brecheisen, & Stephens, 2003). Participants were also stimulated to incorporate the information from the previous exercises to kindle their decision-making process, and thus their career control.

Section 4 of the training focused on a more detailed implementation plan of the earlier training exercises. Exercise 6 particularly aimed to enhance participants' career control by stimulating career-related decision-making and writing an implementation-intention planning. To achieve this, a form was used on which participants had to translate the outcomes of the previous exercises into concrete actions and goals (Richman-Hirsch, 2001). They had to indicate, based on these outcomes, which actions they would undertake after training to achieve their career goals.

2.3.4. Critical components

The five critical components for effective career interventions as identified by Brown et al. (2000, 2003) were included in the training to increase training effectiveness. The first critical ingredient is the use of workbooks and written exercises that require participants to write their goals and future plans. This component was ensured by the use of a personal flap-over on which participants had to keep track of their personal outcomes in each exercise (Sections 1–4) and by a take-home form on which participants had to write a specific plan about the next steps in their career preparation with implementation intentions (Section 4). The second critical ingredient is the use of individualized interpretations and the opportunity to receive personal feedback. Individualized interpretations were stimulated in each part of the training, with a personal reflection on participants' current state in their career preparation (introduction), discussing past career accomplishments and skills (Section 1), concretizing their own career expectations and discussing personal experiences with information seeking strategies (Section 2), and making a personal planning of future career steps (Sections 3 and 4). Individualized feedback was provided by the trainers after each separate exercise and participants could ask questions and were offered individual consultations for problematic outcomes during the day. The third critical ingredient is the provision of opportunities to gather information on the world of work and on specific career options, which was provided by the trainers with up-to-date information on career trajectories (introduction) and with best-practice examples of information seeking strategies (Section 2). The fourth critical ingredient is exposure to models who have successfully coped with similar career transitions, which were incorporated in the presentation of the reemployment agency (introduction), but also in real-life examples of successful information seeking strategies and trainers' own career planning (Sections 2 and 3). The fifth and last critical ingredient is attention to building support for participants' career choices and plans, which was especially stimulated by visualizing career expectations (Section 1) and supported by the trainers in making written plans about future steps (Sections 3 and 4).

2.4. Measures

2.4.1. Career adaptability

Measures of career adaptability were the same for the pre-training (Time 1), post-training (Time 2) and follow-up measurements (Time 3). For this purpose, we mostly relied on the Dutch version (Van Vianen, Klehe, Koen, & Dries, 2012) of the CAAS-International Form 2.0 (Savickas & Porfeli, 2012). The CAAS has extensively been validated in 13 different countries to develop an international measure of career adaptability, such as France, Belgium, The Netherlands, Spain, Italy, Switzerland, Iceland, Brazil, South Africa, China,

Taiwan, Korea, and the US (cf. Savickas & Porfeli, 2012). Participants rated how strongly they believed that they could successfully perform the activities representing each dimension. *Career concern* consisted of items such as “preparing for the future” and “thinking about what my future will be like” ($\alpha_{T1} = .86$, $\alpha_{T2} = .87$, and $\alpha_{T3} = .89$). *Career control* regarded items like “making decisions by myself” and “taking responsibility for my actions” ($\alpha_{T1} = .79$, $\alpha_{T2} = .79$, and $\alpha_{T3} = .81$). *Career confidence* consisted of items such as “performing tasks efficiently” and “working up to my ability” ($\alpha_{T1} = .76$, $\alpha_{T2} = .83$, and $\alpha_{T3} = .81$). Since the CAAS-International Form 2.0 was still under developmental at the time of this study, we additionally assessed each career adaptability dimension with alternative scales. As the items from the CAAS used in the current study to assess *career curiosity* were later adapted during the further development of the CAAS (cf. Savickas & Porfeli, 2012), we chose to use the alternative career exploration scale of Stumpf, Colarelli, and Hartman (1983). This scale asks participants to answer to which degree they had engaged in activities such as “investigated career possibilities” in the last three months ($\alpha_{T1} = .74$, $\alpha_{T2} = .85$, and $\alpha_{T3} = .76$). All four dimensions were rated on a 7-point Likert-type scale ranging from 1 (= *not strong*) to 7 (= *strong*). The principal component analyses with varimax-rotation that were run on the career adaptability dimensions resulted in the expected four factor structure for all three measurement points.

2.4.2. Employment status

We assessed employment status six months after the training (Time 3) by asking participants whether they had found a job and whether they were still employed in that job. Employment status was coded as 1 (= *employed*) when participants indicated that they had found a fulltime job that they were currently employed in and 0 (= *unemployed*) when participants had not found such a job.

2.4.3. Employment quality

According to Wanberg, Hough, and Song (2002) and Vinokur and Schul (2002), employment quality comprises job – , and organization – as well as career-related aspects. In this study, we therefore used four different indicators of employment quality among the participants who had found employment. The two most frequently studied indicators of employment quality are job satisfaction and turnover intentions (Wanberg et al., 2002), and thus we assessed *job satisfaction* with the well-established 5-item scale ($\alpha = .83$) developed by Judge, Erez, Bono, and Thoresen (2003; see also Judge, Heller, & Klinger, 2008), which asks participants to rate items such as “Most days I love my job”, and assessed *turnover intentions* with Colarelli’s (1984) 3-item scale ($\alpha = .83$) with items like “I frequently think of quitting my job”, successfully used before by Saks and Ashforth (2002), Zikic and Klehe (2006) and Koen et al. (2010) as an indicator of employment quality. In order to assess the organizational aspect of employment quality, we assessed *person-organization fit* (cf. Saks & Ashforth, 2002) with the 3-item scale ($\alpha = .96$) created by Cable and DeRue (2002), containing items such as “My personal values match my organization’s values and culture”. Finally, to address the career-related aspect, we included subjective *career success* (Rothwell & Arnold, 2007) as an indicator of employment quality, in line with our study’s focus on graduates’ imminent career pursuit. Career success was measured with Rothwell and Arnold’s (2007) 8-item scale ($\alpha = .95$), which contains items such as “I am satisfied with the progress I have made towards meeting my overall career goals”. For all scales of employment quality, participants were asked to rate the items on a 7-point Likert scale ranging from 1 (= *strongly disagree*) to 7 (= *strongly agree*).

3. Results

To assess whether the training group and control group would be comparable before the onset of the training, we first checked whether these two groups differed with respect to demographics and the four career adaptability constructs at Time 1 (pre-training). No differences were found between the training and control group for age ($F(1,53) = 1.15$, $p = .29$) and gender ($\chi^2(1,56) = 1.82$, $p = .18$), nor were there differences found between the two groups on career concern ($F(1,53) = .62$, $p = .43$), career control ($F(1,53) = .14$, $p = .71$), career curiosity ($F(1,53) = .46$, $p = .50$) and career confidence ($F(1,53) = .28$, $p = .60$). Since the control group in the current study comprised two types of participants (i.e. ‘non-attendees’: those who were not able to attend the training and ‘e-mail’: those who were approached by e-mail solely to participate in the survey), we also checked whether these two sub-control groups differed in demographics and their level of career adaptability at the pre-training measurement (Time 1). No differences were found between the two sub-control groups for any of the variables, namely age ($F(1,21) = .00$, $p = .98$), gender ($\chi^2(1,24) = 1.09$, $p = .30$), career concern ($F(1,21) = 1.74$, $p = .20$), career control ($F(1,21) = .01$, $p = .91$), career curiosity ($F(1,21) = 1.44$, $p = .24$) and career confidence ($F(1,21) = .32$, $p = .58$). Moreover, the proportion of participants within the sub-control group ‘non-attendees’ that had found a job at the follow-up measurement (Time 3) was not significantly different from the proportion of participants within the sub-control group ‘e-mail’ ($\chi^2(1,24) = .04$, $p = .85$).

3.1. Effectiveness of the training

The first hypothesis stated that, compared to the control group, the training group will show an increase in career adaptability immediately after training and six months later. Table 2 presents the means and standard deviations for each dimension of career adaptability per group and Figs. 1a–d show the graphic representations of these means. The means and graphs give a first indication that the training group scored higher on career concern, career control and career curiosity at the post-training measurement (Time 2) and at the follow-up measurement (Time 3) than at the pre-training measurement (Time 1). We tested the effect of the training on participants’ career adaptability via three sets of analyses. First, repeated measurement ANOVAs tested the interaction condition \times time and thus whether the development of the career adaptability dimensions was significant

Table 2

Values of the dimensions of career adaptability at pre-training, post-training and follow-up measurement for the training group and the control group.

Dimension	Group	Pre-training (T1)		Post-training (T2)		Follow-up (T3)	
		M	SD	M	SD	M	SD
Career concern	Training	4.69	.97	5.17	.73	5.09	1.09
	Control	4.83	.83	4.87	.69	4.75	.71
Career control	Training	5.42	.92	5.61	.61	5.71	.70
	Control	5.54	.66	5.52	.84	5.09	1.02
Career curiosity	Training	4.81	.88	5.27	1.22	5.04	.86
	Control	4.98	.79	4.90	.79	4.33	1.12
Career confidence	Training	5.50	.62	5.48	.63	5.59	.66
	Control	5.58	.66	5.58	.74	5.56	.59

$N_{\text{training}} = 32$, $N_{\text{control}} = 24$.

and could be ascribed to the training. According to [Fitzmaurice, Laird, and Ware \(2004\)](#), repeated measures ANOVA is the appropriate method to test whether groups differ in gains on average. Second, contrast analyses tested whether the change over time in career adaptability was significant within each group. Third, MANOVAs were used to test for group differences directly after training and six months later.

3.1.1. Repeated measures ANOVAs

Four repeated measures analyses of variance (ANOVAs) were conducted to determine whether the development of each dimension of career adaptability was significant and could be ascribed to the training, with the career adaptability measures at each measurement point (pre-training, post-training and follow-up) as the within-subjects variable and condition as the between-subjects variable. Although the repeated measures ANOVA assumptions of normality and homogeneity of variance were met, Mauchly's test indicated that the assumption of sphericity had been violated for career concern and career curiosity; therefore degrees of freedom were corrected using Greenhouse–Geisser estimates of sphericity ($\epsilon = .89$ and $\epsilon = .88$ respectively). Results showed that the

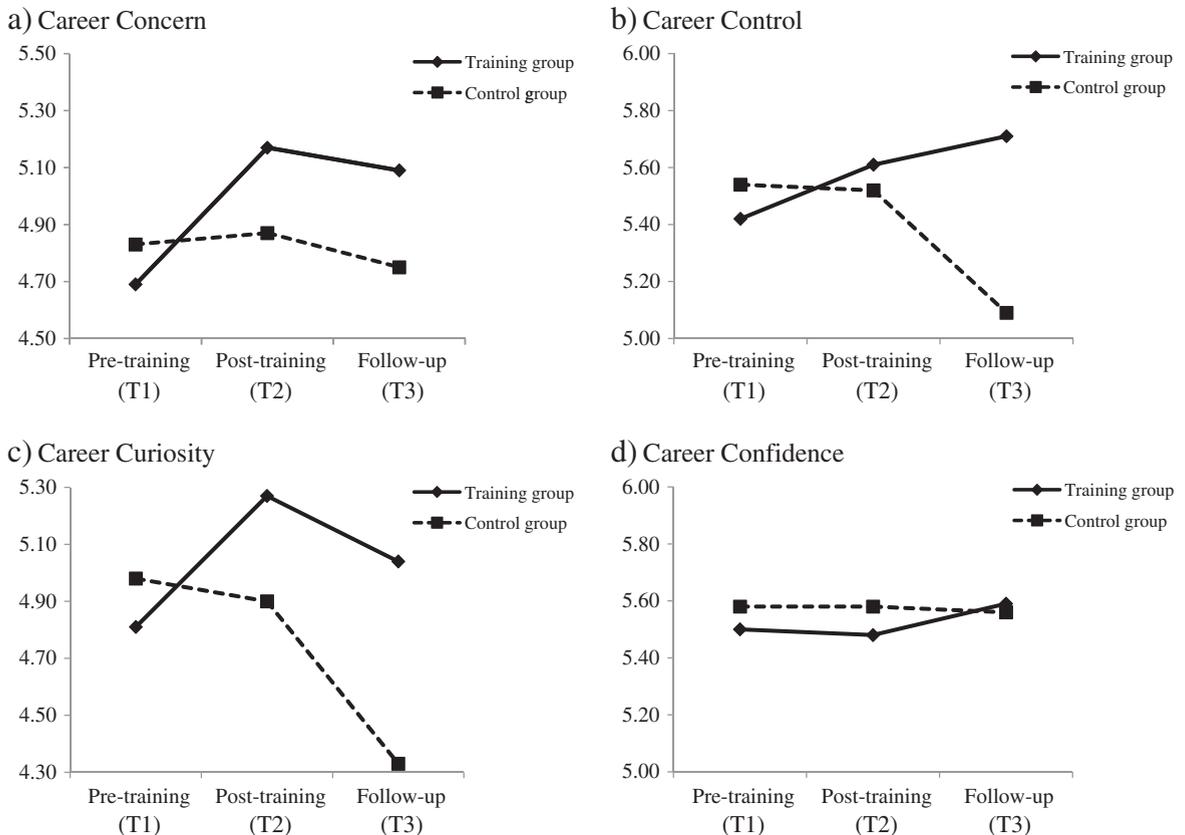


Fig. 1. a–d. Graphic representation of the dimensions of career adaptability at pre-training, post-training and follow-up measurement for the training group and the control group. a. Career concern. b. Career control. c. Career curiosity. d. Career confidence.

interaction condition \times time was significant for career concern ($F(1.78, 92.63) = 3.10, p = .05, \eta_p^2 = .06$; see Fig. 1a), career control ($F(2, 104) = 5.53, p = .01, \eta_p^2 = .10$; see Fig. 1b) and career curiosity ($F(1.6, 91.36) = 3.26, p = .05, \eta_p^2 = .06$; see Fig. 1c). In other words, results revealed that the development of these three dimensions of career adaptability was significantly different for the training group as compared to the control group. No effects emerged for career confidence (see Fig. 1d).

Additional analyses using latent growth modeling (cf. Rogosa, 1988) were comparable to those of the repeated measures ANOVAs. The path coefficients from training to slope were significant for career concern, control and curiosity, whereas the path coefficients from training to intercept were non-significant, confirming that there were no differences between the training and control group on the measures of career adaptability at Time 1.

3.1.2. Contrast analyses

Next, contrast analyses were used to assess the differences in development in more detail. Tests of within-subjects indicated that for career concern, the overall effect of time was significant within the training group ($F(2,62) = 6.10, p = .00, \eta_p^2 = .17$), but not within the control group. Further contrast analyses showed that training participants' career concern at the post-training measurement was significantly higher than at the pre-training measurement ($F(1,31) = 11.40, p = .00, \eta_p^2 = .27$) and remained significantly higher at the follow-up measurement ($F(1,31) = 5.93, p = .02, \eta_p^2 = .16$).

For career control, the overall effect of time was marginally significant both within the training group ($F(2,62) = 2.42, p = .09, \eta_p^2 = .07$) and within the control group ($F(1.44, 30.29) = 3.39, p = .06, \eta_p^2 = .14$). Contrast analyses subsequently showed a significant increase within the training group in career control between the pre-training and follow-up measurement ($F(1,31) = 4.07, p = .05, \eta_p^2 = .12$). The control group, however, showed a significant decrease between the pre-training and follow-up measurement ($F(1,21) = 5.16, p = .03, \eta_p^2 = .20$).

For career curiosity, the overall effect of time was significant for the control group ($F(2,42) = 5.27, p = .01, \eta_p^2 = .20$), but not for the training group ($F(1.60, 49.53) = 1.73, p = .19, \eta_p^2 = .05$). Contrast analyses, however, revealed that participants in the training group showed a significant increase in career curiosity between the pre- and post-training measurement ($F(1,31) = 5.79, p = .02, \eta_p^2 = .16$), whereas participants in the control group had significantly decreased between the pre-training measurement and the follow-up measurement ($F(1,21) = 7.50, p = .01, \eta_p^2 = .26$).

3.1.3. MANOVAs

Results of the multivariate analyses of variance (MANOVAs) revealed that the two groups showed no significant difference directly after the training (Time 2), except for a marginally significant higher mean of career concern for the training group ($F(1,52) = 2.30, p = .07$). However, the two groups did significantly differ at the follow-up measurement (Time 3) in career control ($F(1,52) = 7.09, p = .01$) and career curiosity ($F(1,52) = 6.92, p = .01$), with the training group showing higher scores on both dimensions.

To summarize, these results imply that the training group experienced an overall increase in career concern, control and curiosity, whereas there was no increase (career concern) or even an overall decrease (career control and curiosity) within the control group. Thus, the dimensions of career adaptability developed meaningfully differently between the two groups: while the training group showed an increase on most dimensions, the control group showed a decrease on the same dimensions. These differences in development point out that the training might not have increased the dimensions of adaptability as strongly as we had expected, but essentially helped to buffer against a possible loss of career adaptability over time. At the same time, the training group showed a higher career control and career curiosity than the control group at the follow-up measurement six months after the training, implying that the training did succeed in enhancing participant's career control and career curiosity in a more sustainable way.

3.2. Employment status and employment quality

The second hypothesis stated that, compared to the control group, the training group should show higher quality of employment (job satisfaction, turnover intentions, person-organization fit and career success) six months after the training. First, a chi-square test of independence was performed to examine the relationship between the training and finding a job. Although the percentage of participants that had found a job at Time 3 was higher within the training group (56.2%) than within the control group (45.8%; see Table 3), these proportions did not significantly differ ($\chi^2(1,56) = .60, p = .44$).

Second, we investigated the differences in employment quality between the training group and the control group for those who had found employment with a MANOVA, allowing us to look at all indicators of employment quality simultaneously. Results showed that the overall effect of the training on employment quality was significant ($F(4,23) = 2.86, p = .04, \eta_p^2 = .33$): employed participants who had taken part in the training reported higher employment quality on all four measures than employed participants who had not taken part in the training. More specifically, participants in the training group reported a higher job satisfaction ($F(1,26) = 7.75, p = .01, \eta_p^2 = .23$), lower turnover intentions ($F(1,26) = 6.06, p = .02, \eta_p^2 = .19$), higher person-organization fit ($F(1,26) = 8.77, p = .01, \eta_p^2 = .25$) and higher career success ($F(1,26) = 7.80, p = .01, \eta_p^2 = .23$) than those in the control group (see Table 3 for means and standard deviations). In sum, these results show that the training contributed not only to an increase in people's career adaptability, but also to the quality of their employment.

Table 3

Employment status and employment quality for the training group and control group at the follow-up measurement (Time 3).

	Employment status		Employment quality											
	Employed	Unemployed	Job satisfaction			Turnover intentions			P–O fit			Career success		
			M	SD	F	M	SD	F	M	SD	F	M	SD	F
Training group	56.2% (n = 18)	43.8% (n = 14)	6.07	.90	7.75***	2.10	1.35	6.06**	5.90	1.14	8.77***	5.97	.83	7.80***
Control group	45.8% (n = 11)	54.2% (n = 13)	4.95	1.23		3.51	1.69		4.65	1.03		4.87	1.25	

*** $p < .01$.** $p < .05$.

4. Discussion

Newcomers to the labor market who graduate during economic bad times are less likely to find a suitable job than in economic better times, and are more likely to experience job mismatching and to suffer from underemployment (ILO, 2011; Kahn, 2010). To prevent prolonged unemployment, underemployment and other negative consequences for their further careers, this study took a first step to help university graduates find a suitable job by providing them with the necessary 'tools' to cope with the transition from school to work – as reflected in their career adaptability (Hall, 2004; Savickas, 1997; Savickas, 2005). Given that career adaptability can enhance the chance on finding a suitable job and career success (Hartung & Taber, 2008; Hirschi, 2010; Skorikov, 2007), we developed a training aimed at enhancing career adaptability to assist university graduates in their search for suitable employment.

The aim of the current study was twofold. Our first aim was to develop a theory-driven training that contributed to university graduates' career adaptability, both immediately and in the long run. By doing so, we answered to an often expressed call in careers research that 'researchers should investigate the impact of an intervention designed to improve people's adaptability' (Verbruggen & Sels, 2008, p. 326), and that 'more attention should be devoted to long-term changes occurring after intervention' (Savickas et al., 2009, p. 248). Specifically, we tested whether career adaptability can be influenced and is thus malleable. Our second aim was to investigate whether the career adaptability training indeed contributed to finding suitable employment. Combining the assumption that engaging in career adaptability activities facilitates the match between the self and the vocational environment (Savickas, 2005) with the assumption that the match between the career self-concept and the vocational environment is the main predictor of employment quality (Savickas, 1997; Super, 1990), we expected that the career adaptability training would raise participants' future employment quality.

The design of the training was based on Savickas' (2005) recommendation to incorporate interventions for each dimension of career adaptability in order to improve the associated activities of planning (career concern), decision making (career control), exploration (career curiosity) and problem solving (career confidence), and on Brown and Ryan Krane's (2000) and Brown et al.'s (2003) recommendation to include several critical ingredients that help to improve the effectiveness of a career intervention. The effects of the career adaptability training were investigated immediately after the training and six months later. Results showed that the development of career adaptability was significantly different for the training group as compared to the control group: the training group had increased in concern, control and curiosity, whereas the control group had not increased in concern and had even decreased in control and curiosity. Even though the mean differences between training group and control group were not yet apparent immediately after training, the training group did show higher control and curiosity at the follow-up measurement than the control group, implying that the training succeeded in enhancing participants' control and curiosity in a more sustainable way. The pattern of effect sizes strengthens the idea that the training enhanced participants' career adaptability mainly in the long run: the effect sizes show that training effects were detectable post-training, but were larger at the follow-up measurement, with the exception of career concern. In other words, it was the development of the dimensions of career adaptability that showed meaningful differences between the two groups: while the training group showed an overall increase on most dimensions of career adaptability, the control group showed a decrease on the same dimensions. Arguably, the training provided training participants with career adaptability resources and helped to buffer against a decrease of career adaptability. Lastly, employed participants who had taken part in the training reported higher employment quality than those who had not taken part in the training. Hence, our results bear a number of theoretical and practical implications.

4.1. Theoretical contributions

First and foremost, our study shows that the construct of career adaptability is malleable by targeting its separate dimensions career concern, career control, career curiosity and career confidence. Although adaptability has always been theorized by Savickas (1997, 2005) as a dynamic and learnable construct, career scholars have questioned whether it would be a learnable competence rather than a fairly stable personality trait (e.g. Chan, 2000; Griffin & Hesketh, 2003; Verbruggen & Sels, 2008). Our study shows that career adaptability can indeed – as theorized by Savickas – be influenced and is thus a learnable construct. With the theory-based training that we have developed, we were able to influence the development of most of the career adaptability dimensions by providing the associated resources. This simultaneously suggests that the combination of interventions aimed at

increasing each career adaptability dimension (Savickas, 2005) with the critical ingredients for career interventions (Brown & Ryan Krane, 2000; Brown et al., 2003) is effective when aiming to enhance people's career adaptability.

At the same time, however, we found that university graduates' career adaptability has a general tendency to decrease — a comparable result to that from Phillips (1982) who found that career exploration decreases as individuals grow older. In our study, the control group showed an overall decrease on the dimensions of career control and career curiosity, where the training group showed an overall increase. Presumably, the training helped to buffer against the loss of career adaptability that normally occurs during graduates' search for suitable employment. Previous research has indicated that prolonged unemployment tends to diminish the effort job seekers invest in job search activities, thereby reducing their chances on finding a suitable job (Aronson, Mazumder, & Schechter, 2010; Wanberg et al., 2002). Prolonged unemployment might therefore discourage graduates in the pursuit of their career goals and forestall the acquisition of essential career development skills (ILO, 2011; Savickas, 1997; Sung et al., *in press*), which could explain the overall loss of career adaptability for the control group. Taken together, we can conclude that given that career adaptability is malleable, people should make a conscious effort in maintaining or increasing their adaptability.

Unexpectedly, the differences between training and control group on the career adaptability dimensions were not immediately apparent after the training. The unique focus of the training to provide graduates with career adaptability resources may explain this result: the acquisition and ability to effectively utilize these resources may take some time. The lack of effect at the post-training measurement might be also due to a greater awareness of the obstacles participants face when searching for suitable employment (Martocchio, 1994; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). The fact that especially career control and career confidence remained the same immediately after the training strengthens this notion: graduates might have experienced less career control and career confidence regarding their future careers when confronted with the amount of effort needed to pursue a fulfilling career. Fortunately, however, the training did succeed in enhancing participants' career adaptability in the long run: graduates who had taken part in the training reported higher career control and career curiosity six months after training. This finding is not a stand-alone finding in research on training effectiveness. For example, self-regulatory processes can facilitate learning during training and often improves the effects of training over time (Aguinis & Kraiger, 2009; Sitzmann, Brown, Casper, Ely, & Zimmerman, 2008). It might be that a training on career adaptability, considering its very nature of adaptive self-regulatory processes, is therefore especially effective in the long run.

Another explanation for the mainly long-term training effects may be found in the relationship between prior behavior and subsequent behavior as reported by Millar and Shevlin (2003). In their study, they found a strong influence of past career exploration on later career exploration. They suggested that facilitating career exploration may be the best way of ensuring that people will continue to engage in career exploration in the future. This notion fits well with the idea that the training provided participants with exercises to acquire career adaptability resources, which they may have continued to utilize after the training. In sum, we can infer from our findings that career adaptability can be improved in a sustainable way by targeting career adaptability resources, making the adaptability training an appropriate instrument to enhance graduates' adaptability in the long run.

Contrary to expectations, results showed that the career adaptability dimensions developed in different patterns. To illustrate, within the training group, graduates' career control showed an overall increasing pattern, whereas their career concern and career curiosity seemed to drop slightly in the six months after training. This might be due to the fact that training participants invested relatively less effort in planning activities (i.e. career concern) and exploration activities (i.e. career curiosity) as soon as they had found employment, but at the same time got confirmed in their decision regarding the career they wanted to pursue (i.e. career control) — after all, finding suitable employment resembles a good career start. Additionally, graduates' career confidence did not increase, nor decrease. Although career confidence was not explicitly targeted in a separate exercise, personal and others' tactics to overcome obstacles and career-related experiences were used to enhance career confidence (Savickas, 2005). However, graduates' career-related experiences are generally scarce. Therefore, career confidence may particularly develop when the number of (positive) career related experiences grows. The different patterns in the development of career adaptability dimensions are, however, in line with previous research. For example, Stringer, Kerpelman, and Skorikov (2011) also noted that each dimension of career adaptability may show a different pattern of development. They stated that young adults engage in exploration activities (i.e. career curiosity) particularly prior to career establishment, and that they are gaining career confidence as they learn how to become adaptable (i.e. successfully fit their career expectations within the possibilities of the vocational environment).

Last but certainly not least, among the university graduates who had found employment six months later, training participants reported higher employment quality than nonparticipants — as reflected in higher job satisfaction, lower turnover intentions, higher person-organization fit and higher career success. Note, however, that the proportion of graduates who had found employment did not differ between the two groups. These findings are similar to earlier studies that have shown career adaptability to be a positive predictor of employment quality, but that found no relationship with finding employment in itself (e.g. Koen et al., 2010; Zikic & Klehe, 2006). Given that engaging in career adaptability can foster the match between the career self-concept and the vocational environment, the idea that career adaptability leads to better employment quality is not surprising — yet remains important. To wit, research on job search and finding (re-)employment has so far failed to explain meaningful variance in the quality of employment (Kanfer, Wanberg, & Kantrowitz, 2001; Wanberg, 2012; Wanberg et al., 2002). Fortunately, career adaptability seems to surface as a stable predictor of employment quality across different groups of job seekers: from high professionals (Zikic & Klehe, 2006) to the long-term unemployed (Koen et al., 2010) and university graduates (this study).

Yet, the dimensions of career adaptability may have differential effects on the quality of employment. For example, Zikic and Klehe's (2006) results showed that career exploration (i.e., curiosity) and career planning (i.e., concern) were related to employment quality, whereas Koen et al.'s (2010) results showed that decision making (i.e., control) and confidence were directly related to

employment quality. Although it is beyond the focus and scope of the current study, it is worth to examine how each career adaptability dimension contributes to employment quality. For example, the possibility to utilize one or more of the career adaptability resources might have affected the use of a proper job search strategy, which in turn may have resulted in higher or lower employment quality (cf. Koen et al., 2010). The relationship between career adaptability and employment quality should therefore be given a central place in both research and practice dealing with job search, (re-)employment and career development.

4.2. Practical contributions

In the search for suitable employment in a world of work characterized by rapid and unpredictable changes, the ability to adapt is critical to employment quality and future career success (Savickas, 1997; Sung et al., *in press*). Career management will thus need to focus more on the development of activities associated with career adaptability (Clarke, 2009). The present study answers to this call and shows that the developed training effectively helps to increase career adaptability or buffer against the decrease of career adaptability, which in turn can predict people's employment quality. We believe that these findings extend the so far mainly theoretical importance of career adaptability, showing that career adaptability is of practical importance as well. We hope that this study encourages practitioners to apply our findings when deploying career interventions in order to stimulate employment quality and career success.

First, the results of our study underline the importance of career preparation in the form of engaging in career adaptability activities for successful career transitions and for employment quality. The results even suggest that engaging in career adaptability can 'prevent' underemployment by buffering against the possible loss of career adaptability. Second, this study shows that it is important to follow up on clients regularly and longitudinally, since career adaptability does have a tendency to decrease, which might result in underemployment and negative career consequences. Following up on clients is apparently barely done in career counseling and should therefore be given more attention (Heppner & Heppner, 2003). Furthermore, our study implies that it is possible to construct a theoretically driven training that is able to significantly increase career adaptability as well as employment quality. Besides the fact that career adaptability is indeed trainable, the bases for development (i.e., career adaptability resources) can be laid in one day. Career counselors can therefore use this training among university graduates – but possibly also among other types of people facing career transitions – to stimulate career adaptability and employment quality in a very cost-efficient way. As this study shows, graduates reach a substantially and sustainably higher level of career adaptability. Even more so, since the training was conducted during the recent economic crisis, it is possible to help graduates in finding a suitable job even during economic hard times.

4.3. Limitations and recommendations for future research

One limitation of the research design of the current study is that it was not possible to completely randomly assign participants to the training and control group. Instead, the control group consisted of a greatly comparable group of university graduates. Although the analyses of the pre-measurement showed no differences between both groups on any of the variables of interest nor on the demographics, it is nonetheless theoretically possible that there might have been a confounding influence on our dependent variables.

According to Savickas and Porfeli (2012), countries vary in the degree to which they foster the formation of career adaptability because they provide different demands and opportunities to develop and express these resources. The results in the current study may thus be different in another culture or context. For example, being adaptable may be considered less important or attractive for employers in a non-Western culture that does not emphasize individualism to a similar extent. Likewise, being adaptable may be less important for finding high quality employment in a more stable economy where university graduates have the luxury of choice between jobs. Additionally, further research should examine whether our results with university graduates can be replicated with a sample of blue collar workers. Yet, note that past research has shown that career adaptability also plays an important role in the reemployment quality of people with less formal education (cf. Koen et al., 2010). All in all, we recommend researchers and practitioners to replicate the training in different contexts and cultures.

Another critical remark on our study is that it entailed a relatively small sample. Although results were robust despite the sample size, a larger sample would have allowed us to conduct additional analyses to investigate the changes over time in more detail. For example, both career concern and career curiosity seemed to drop slightly after the training. As discussed earlier, a possible explanation for this drop could be that participants decreased in their career concern and career curiosity after finding employment. Although this explanation makes sense intuitively, we were unable to test this assumption with the number of participants in the sample. Future research should definitely look into the change over time in career adaptability, and whether or not there might be optimal levels of the career adaptability dimensions at different stages of one's career. After all, career adaptability is not a once-or-twice phenomenon but rather a life-long process that is not only important during career transitions. Including follow-up exercises in the training design to maintain the acquisition and utilization of participants' career adaptability resources may prevent an undesirable decrease.

On a related note, it is possible that people's initial level of career adaptability influences the usefulness and effectiveness of the career adaptability training. While we acknowledge that participants' overall adaptability profile might have differed at the beginning of the training (i.e., for some participants the one dimension is more important to focus on, whereas for other participants another dimension is important to focus on), we believe that the results show that the training contributes to people's development of

career adaptability regardless of those differences. In the future, however, it may be wise to investigate whether the level of career adaptability before training may increase or decrease the effectiveness of the training.

In sum, the training in the current study may be improved in future research by taking the possible influence of participants' initial career adaptability profile into account, by incorporating follow-up exercises to prevent an undesirable decrease of career adaptability, by including additional exercises to stimulate participants' career confidence, and by conducting the training among different types of samples in different contexts.

5. Conclusion

Results suggest that the training as developed for the current study can help university graduates to increase their career adaptability over time (concern, curiosity and control) and may thus facilitate a successful transition from school to high quality employment. Just one day of career preparation before the pursuit of a career can provide university graduates with the resources necessary to engage in career adaptability behaviors, find a more suitable job and have a better start of their career.

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