IT'S ALL ABOUT CAREERSKILLS: EFFECTIVENESS OF A CAREER DEVELOPMENT INTERVENTION FOR YOUNG EMPLOYEES

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The aim of our study was to investigate the effectiveness of the CareerSKILLS program, a career development intervention based on career competencies and the JOBS methodology, which aims to stimulate career self-management and well-being of young employees. In a quasi-randomized control trial, the effects of the program were tested in a homogeneous sample of young employees with intermediate vocational education ($N_{intervention}$ = 112, $N_{non\text{-}intervention}$ = 61) and in a heterogeneous sample of employees from a special reintegration program ($N_{intervention}$ = 71, $N_{non\text{-}intervention}$ = 41). Our results support the effectiveness of the intervention: participants of the CareerSKILLS program, versus a control group, showed increases in six career competencies (reflection of motivation, reflection on qualities, networking, self-profiling, work exploration, and career control), self-efficacy, resilience against setbacks, career-related behaviors, perceived employability, and work engagement. These results provide empirical support for the effectiveness of the CareerSKILLS program. Theoretical and practical implications are discussed. © 2014 Wiley Periodicals, Inc.

Keywords: career development, career competencies, quasi-randomized control trial, work engagement, perceived employability, young employees

In the past few decades, several changes have taken place in the labor markets of Western countries. Labor has become more knowledge based and service oriented and employee well-being and career development are becoming increasingly important (Diener & Seligman, 2004; Nieuwenhuis, Coenen, Fouarge, Harms, & Oosterling, 2012). In addition, the labor market has become much more flexible. Temporary jobs have become more prominent in all labor market sectors ranging from construction to scientific research. As a consequence, careers are also becoming more dynamic, and employees need to keep up with a growing number of changes in work and working organizations. Moreover, employees are increasingly expected to take their own responsibility for managing their career (Segers & Inceoglu, 2012; Vuori,

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Toppinen-Tanner, & Mutanen, 2011). Faced with these challenges, employees need to seek career opportunities proactively within as well as outside of their current organization. Therefore, gaining resources and competencies to successfully manage one's career is essential. For these reasons, Vuori et al. (2011) argued that more empirical studies are needed that examine the effectiveness of interventions supporting career development. In line with Vuori et al., Hall and Las Heras (2010) emphasized that these interventions may also include so-called "smart jobs"—jobs that are designed in such a way that they may facilitate both employee well-being and career development. In this study we empirically tested a career development intervention and focused on its effects on career competencies and work-related well-being of young workers.

Faced with these challenges, employees need to seek career opportunities proactively within as well as outside of their current organization. Therefore, gaining resources and competencies to successfully manage one's career is essential.

Thus far, research on employee well-being and career development has focused mainly on adult, more experienced employees (e.g., Buyens, Van Dijk, Dewilde, & De Vos, 2009). Relatively few studies have solely focused on young employees. This is a surprising result, in particular because young employees encounter many career-related activities in a brief period of time that may have important consequences for their future career, health, and well-being (see Akkermans, Brenninkmeijer, Blonk, & Koppes, 2009; Akkermans, Brenninkmeijer, Van den Bossche, Blonk, & Schaufeli, 2013; Elfering, Semmer, Tschan, Kälin, & Bucher, 2007). Besides finding a first occupation and exploring possibilities for further professional development, these also include experiencing unsatisfactory employment, work socialization, and underemployment (Koivisto, Vuori, & Nykiri, 2007; Koivisto, Vuori, & Vinokur, 2010). Moreover, young employees have been hit hardest by the economic crisis of the past few years, leading to an alarming 28 percent unemployment rate of young employees in Europe (European Commission, 2012).

All these indicators emphasize the importance of research on the role of *career competencies* in the career development of young workers. To study the role of career competencies, a number of steps need to be taken. The first would be to examine what competencies are important and how to assess these competencies. In a recent study, Akkermans, Brenninkmeijer, Huibers, and Blonk (2013) developed a model and assessment instrument of career competencies. The authors showed that career competencies can be reliably and validly measured. A second step in studying the role of career competencies would be to investigate whether career competencies can be enhanced by brief interventions.

This issue of career competencies and career-related interventions may be especially important for young employees with lower levels of education. European labor market studies show increasing differences between educational groups concerning health, sickness absence, and unemployment (European Commission, 2012). In these studies, employees with lower educational levels report the least favorable outcomes. In addition, educational and professional levels are polarizing in the sense that more jobs are being created for highly skilled workers, and wages are increasing more among highly skilled workers (European Commission, 2012). Research also indicates that a lower educational level can result in an extended job search for the first job, and in lower job security (Nieuwenhuis et al., 2012). In addition, lower-skilled jobs are becoming ever more complex due to increasing certificate and diploma demands, an increasing emphasis on flexibility and social skills, and the growing role of information and communication technology (ICT) (Nieuwenhuis et al., 2012). Therefore, in our study we focused on young employees with lower educational levels (i.e., fewer than 12 years of education, noncollege).

In this study, we tested the short-term effectiveness of a brief intervention that aims to stimulate career competencies and work-related well-being of young employees.

The methodology of this intervention was derived from the JOBS program (Caplan, Vinokur, Price, & Van Ryn, 1989), an empirically supported intervention that was originally developed to reintegrate recently unemployed individuals. Our intervention, the CareerSKILLS intervention (Akkermans & Lagerveld, 2010), employs active learning processes (Caplan, Vinokur, & Price, 1997) in which the learner has a central role in identifying personal and professional development, and creative problem solving. Empirically testing this career development intervention may provide us with additional understanding of how to stimulate career competencies, employability, and work-related well-being of young workers.

The CareerSKILLS Intervention

The CareerSKILLS intervention was developed to stimulate career competency development and work-related well-being of young employees. Its methodology is based on the JOBS intervention (Caplan et al., 1989), which was developed at the Michigan Prevention Research Center as a preventive intervention for recently unemployed job seekers. The JOBS program is a short, intensive group course that follows a strict protocol. In five consecutive four-hour meetings, the participants work with themes such as reflecting on future wishes, expanding professional networks, and setting goals. Two facilitators lead the sessions, which consist of 12 to 20 participants. The JOBS program sets itself apart from other interventions because of its methodology and its theoretical background, which is detailed next. The methodology is based both on skill acquisition and on strengthening self-efficacy and problem solving skills.

The effectiveness of JOBS and JOBS-derived interventions has been studied in a number of empirical field studies. In the United States, several studies with unemployed individuals demonstrated both the short-term and long-term effectiveness on problem-solving skills, finding a job, job satisfaction, and income earned (Caplan et al., 1989; Vinokur, Price & Schul, 1995). Similar results were found in Finland (Vuori, Silvonen, Vinokur, & Price, 2002) and the Netherlands (Brenninkmeijer & Blonk, 2011). Vinokur and Schul (1997) found that these interventions were especially effective because of the active working ingredients of self-efficacy (Bandura, 1997) and inoculation against setbacks (Meichenbaum, 1985). In focusing on enhancing self-efficacy together with skill acquisition, participants gained a sense of mastery. Moreover, by preparing participants for potential setbacks, they were better able to overcome these setbacks. These two working ingredients of self-efficacy and inoculation against setbacks were the methodological fundament in developing the CareerSKILLS program. Further, the exercises of this intervention were aimed at enhancing the career competencies that were brought forward in the model of Akkermans, Brenninkmeijer, Huibers, et al. (2013).

Career Competencies

The main building blocks of the CareerSKILLS intervention are *career competencies*. As mentioned earlier, Akkermans, Brenninkmeijer, Huibers, et al. (2013) recently formulated a model of career competencies, which was used as a basis for the Career Competencies Questionnaire (CCQ). Using qualitative pilot studies and quantitative analyses with structural equation modeling, they showed that the CCQ had good content, factorial, discriminant, and incremental validity. Akkermans, Brenninkmeijer, Huibers, et al. (2013) characterized career competencies as knowledge, skills, and abilities central to career development that can be developed by the individual. Their model was divided into three dimensions—reflective, communicative, and behavioral competencies—and each of these dimensions contained

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two competencies. Reflective career competencies pertain to creating awareness of the career and to combining personal reflections with the professional career. The two competencies that comprise this dimension are *reflection on motivation*, which refers to reflection on values, passions, and motivations with regard to the personal career; and *reflection on qualities*, which refers to reflection on strengths, shortcomings, and skills with regard to the personal career. Communicative career competencies relate to being able to effectively communicate with significant others to improve one's chances of career success. The two competencies are *networking*, which refers to the awareness of the presence and professional value of one's network, and the ability to expand this network for career-related purposes; and *self-profiling*, which refers to presenting and communicating one's personal knowledge, abilities, and skills to the internal and external labor market. Finally, behavioral career competencies pertain to being able to actually shape one's career by taking action and being proactive. *Work exploration*, which refers to actively exploring and searching for work-related and career-related opportunities on the internal and external labor market, and *career control*, which refers to actively influencing learning processes and work processes related to one's career by setting goals and planning how to reach these goals, are the two behavioral competencies.

During the intervention, participants first work on their reflective competencies by focusing on what they like and dislike in work, what their qualities are, and what kind of job or working environment they would like to achieve. Next, they work out strategies involving significant others (i.e., communicative competencies) to arrive at that preferred situation. Finally, these strategies are further refined with an action plan and an active search for opportunities to implement their plans (i.e., behavioral competencies).

Self-Efficacy and Resilience Against Setbacks

In line with the JOBS program, CareerSKILLS is built on two active ingredients that interact with the active learning processes in the intervention (Vinokur & Schul, 1997): self-efficacy and inoculation against setbacks. *Self-efficacy* (Bandura, 1997, 2012) refers to individuals' judgment of their capability of meeting demands in a specific context. Self-efficacy has been shown to increase individuals' motivation for performing specific goal-related behavior (Van Ryn & Vinokur, 1992; Vuori et al., 2011). Applied to the working context, it can be defined as the confidence in one's abilities to successfully perform work-related and career-related activities. Self-efficacy is an important ingredient of CareerSKILLS because it contributes to defining personal strengths and interests (related to reflective career competencies), social relations at work (related to communicative career competencies), and seeking possibilities and shaping one's career in the desired direction (related to behavioral career competencies; Vuori et al., 2011). Akkermans, Brenninkmeijer, Huibers, et al. (2013) also demonstrated that self-efficacy is related to career competencies and perceived employability. The CareerSKILLS intervention aims to enhance self-efficacy by adopting an approach that centers around positive reinforcement and specific positive feedback in active learning exercises. Referent power of the trainers and emphasizing that participants are experts themselves, combined with social support, further strengthens self-efficacy.

The concept of *inoculation against setbacks* refers to the ability to anticipate setbacks and the skills to cope with them (Meichenbaum, 1985, 2007). According to Meichenbaum, inoculation against setbacks can be achieved by providing an individual with experience in potential stressors and setbacks. By preparing against setbacks, individuals increase their resilience and develop a sense of mastery in problem-solving skills when confronted with real-life obstacles. Because setbacks are accepted as learning opportunities, individuals will maintain their motivation to carry out difficult behaviors when faced with real setbacks (Meichenbaum, 2007). As argued earlier, young workers face many new challenges and difficult choices in a brief period

of time. They are often confronted with obstacles such as finding a suitable job and getting used to the responsibilities and social relations in working life. Therefore, it is essential to inoculate these young employees against setbacks, in order to keep them motivated and more resilient. For this reason, every session in the program contains several "inoculation against setbacks" exercises, where participants help each other to recognize potential obstacles, and subsequently to find solutions for these obstacles.

Because the exercises in the CareerSKILLS program were explicitly formulated to increase the six career competencies discussed earlier (Akkermans, Brenninkmeijer, Huibers, et al., 2013), we expect that the intervention will enhance the career competencies of the participants. As the CareerSKILLS intervention is built around two active ingredients, self-efficacy (Bandura, 2012) and inoculation against setbacks (Meichenbaum, 2007), we also expect participants to gain increased levels of work-related self-efficacy and become more resilient against setbacks. For these reasons, we formulated the following hypotheses:

Hypothesis 1: The CareerSKILLS intervention will increase the level of career competencies in the intervention group compared with the control group.

Hypothesis 2: The CareerSKILLS intervention will increase the level of work-related self-efficacy and resilience against setbacks in the intervention group compared with the control group.

As the CareerSKILLS program is aimed at increasing career self-management behaviors of young employees through the mastery of career competencies, an integral part of the CareerSKILLS program focuses on activating and encouraging participants to add concrete career-related behaviors to their intentions. Consequently, we expect participants to report more career-related behaviors after completing the intervention. For example, one exercise specifically focuses on drawing an individual's network, and on actually asking a relevant person from that network for career opportunities (e.g., a job offer). Because these skills are trained during the intervention, we expect participants to perform these behaviors more frequently after participating in the CareerSKILLS intervention.

Another outcome of our intervention study is perceived *employability*. In recent years, the concept of employability has received much attention both in research and in practice, and it has been linked to career competency development (e.g., Akkermans, Brenninkmeijer, Huibers, et al., 2013; Kuijpers, 2003). Although different definitions exist, the common denominator in these definitions is the ability to gain equal or better employment in the present and in the future (e.g., Fugate, Kinicki, & Ashforth, 2004; Van der Heijde & Van der Heijden, 2006). The definition that we used in this study is that employability is "the ability to keep the job one has or to get the job one desires" (Rothwell & Arnold, 2007, p. 25). Recent studies have also focused on perceived employability (e.g., De Cuyper, Bernhard-Oettel, Berntson, De Witte, & Alarco, 2008), emphasizing the importance of a subjective sense of being able to obtain and retain equal or better employment. As discussed earlier, the CareerSKILLS program is built around the two working ingredients of self-efficacy and resilience against setbacks. In fostering participants' confidence in their ability to perform career-related activities and their sense of resilience against obstacles, it is likely that they will also experience more positive perceptions of their ability to succeed in their career, and thus in their chances of obtaining and retaining employment. This is especially the case because they gain additional mastery of career competencies during the intervention, which has been linked to perceived employability (Akkermans, Brenninkmeijer, Huibers, et al., 2013). This leads to our next hypothesis:

Hypothesis 3: The CareerSKILLS intervention will increase the levels of career-related behaviors and perceived employability in the intervention group compared with the control group.

As previously noted, CareerSKILLS was also developed to increase employee well-being. Recent findings indicated that career competencies are related to job resources and work engagement, but not to job demands

and emotional exhaustion (Akkermans, Schaufeli, Brenninkmeijer, & Blonk, 2013), thus showing a resemblance to personal resources that can stimulate employee well-being (Hobfoll, 1989; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007, 2009). For this reason we also included work engagement and emotional exhaustion in our analyses, as indicators of motivation and strain, respectively. Work engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli, Salanova, González-Roma, & Bakker, 2002). Emotional exhaustion is a core component of burnout, which refers to feelings of being overextended and exhausted by the emotional demands of one's work (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). As noted here, career competencies have been positively linked to work engagement, which indicates that mastering these competencies may be positively associated with motivation at work. On the contrary, earlier findings have shown no relationship between career competencies and emotional exhaustion, suggesting that the mastery of these competencies may not act as a buffer against strain. Because the CareerSKILLS program is built around increasing these career competencies, it is likely that similar effects would be found. Therefore, we formulated the following hypothesis:

Recent findings indicated that career competencies are related to job resources and work engagement, but not to job demands and emotional exhaustion, thus showing a resemblance to personal resources that can stimulate employee well-being.

Hypothesis 4: The CareerSKILLS intervention will increase the levels of work engagement, but not of emotional exhaustion, in the intervention group compared with the control group.

Method

Participants and Procedure

Our design was a quasi-randomized control trial with two conditions: an intervention group and a control group. Data for this study were collected in two organizations: a Dutch educational institution (Sample 1) and a Dutch multinational (Sample 2). Participants in the intervention groups followed the program during school hours in Sample 1, and during work hours in Sample 2. Participants of the control group did not receive a specific course or a placebo intervention. They followed the regular curriculum of their school (Sample 1) and organization (Sample 2). In this way we could investigate whether the CareerSKILLS program would have added value on top of the regular programs. Due to practical restraints of the participating organizations, we could not fully randomize the groups.

We derived the first sample from a large Dutch educational institution. These students received intermediate vocational education (i.e., fewer than 12 years of total education; noncollege): they followed a study of 3 to 4 years, in which they all had an educational specialization (e.g., health care, metal industry, administrative work). During their vocational training they did multiple internships which increased in length and intensity each time. The participants in this study were in their final year of training, in which they did an extensive internship for one to four days per week. This was our primary test of effectiveness, because the CareerSKILLS intervention was specifically developed for this group.

The majority of participants in Sample 1 were male (69.4 percent), with a mean age of 19 years (83.8 percent was between 16 and 20 years). The average tenure with their current working organization was 8.7 months and they worked an average of 28.8 hours per week. Allocation to the two groups was based on the school class in which the interns were following their lessons: a class was appointed to either the intervention group or the control group. The composition of the two conditions was matched with regard to educational specialization (e.g., ICT, health care, administrative work). A total of 112 out of 135 participants followed the entire program and filled out questionnaires at three points in time (84 percent participation rate; 100 percent response rate). In the control group, 61

out of 89 students filled out questionnaires (69 percent response rate) at two points in time, corresponding with the first and third measurement in the intervention group. We checked for selective attrition both in the intervention group and the control group, but we did not find any significant differences with regard to gender ($F(1, 133) = 1.18$, $p = .28$, and $F(1, 87) = 2.86$, $p = .10$, respectively) or educational specialization ($F(1, 133) = 1.47$, $p = .23$, and $F(1, 87) = 1.55$, $p = .22$, respectively).

The second sample consisted of participants in a reemployment program provided by a large Dutch multinational. These participants had been unemployed but were given a temporary job in a special program that aimed to return them to work. The reemployment program was part of the corporate social responsibility agenda of this multinational company. This second sample was used to assess the robustness of our findings and to be able to generalize our results to a larger group of employees, as we expected the CareerSKILLS intervention to be useful for other groups of employees as well. A slight majority of the participants in Sample 2 were female (51.3 percent). Their mean age was 33 years but roughly half of them were younger than 30 years and had received intermediate vocational education. On average, they were working in this reemployment program for 6.7 months and they worked 35.9 hours per week. Full demographic details of the participants are displayed in Table I. In this sample, allocation to intervention or control group was determined based on department location, as the organization consisted of four participating departments spread out over the Netherlands. In every department the participants were appointed to either the intervention or the control group. A total of 72 of 84

TABLE I Participant Characteristics and Demographic Data

	Study 1 (*N* = 173)		Study 2 (*N* = 113)	
	N	**Percentage**	***N***	**Percentage**
Gender				
Male	120	69.4	55	48.7
Female	53	30.6	58	51.3
Age				
16–20 years	145	83.8	2	1.9
21–30 years	27	15.6	53	46.9
31–40 years	1	0.6	30	26.5
41–50 years	0	0.0	17	15.0
> 50 years	0	0.0	11	9.7
Level of Education				
Intermediate Vocational Level 2	5	2.9	23	20.4
Intermediate Vocational Level 3	11	6.3	26	23.0
Intermediate Vocational Level 4	157	90.8	29	25.7
Higher Vocational	0	0.0	6	5.3
University	0	0.0	5	4.4
Other	0	0.0	24	21.2
Number of work hours/internship hours				
0–20 hours	46	26.6	4	3.5
21–30 hours	13	7.5	5	4.5
31–40 hours	101	58.4	92	81.4
> 40 hours	13	7.5	12	10.6

participants completed the entire program (86 percent response rate; 100 percent participation rate). In the control group, 41 of 75 participants filled out both questionnaires (55 percent response rate). The composition of the two conditions was matched with regard to how long the participants had been part of the reintegration program, the working location, age, and educational level. We checked for selective attrition both in the intervention group and the control group, but we did not find any significant differences with regard to gender ($F(1, 82) = 1.13$, $p = .29$, and $F(1, 73) = 2.55$, $p = .12$, respectively) or age ($F(1, 82) = 1.14$, $p = .29$, and $F(1, 73) = 2.72$, $p = .10$, respectively).

Participants brainstormed about possible jobs that fit their values, passions, and skills. They were asked to step into a figurative time machine to discover their dream jobs.

Participants in the intervention groups received three questionnaires in both samples: immediately before the start of the intervention (Time 1), immediately after the four-day program two weeks later (Time 2), and after the final fifth day (i.e., the return day) of the program, six weeks after the start (Time 3). Questionnaires were handed out to the participants, so they could immediately be filled out on the spot. A research assistant was present when participants filled out the questionnaire. This assistant briefly explained the procedure and was available for answering questions. The assistant also stated that there were no right or wrong answers and that the data would be processed anonymously, thereby reducing the risk of evaluation apprehension (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Participants in the control group received two questionnaires: a first questionnaire at a set time and location (Time 1) and a second questionnaire after six weeks (Time 3 of the intervention group). The second questionnaire (Time 2) was left out for the control group due to practical concerns of the participating organizations. In sample 2, the control group filled out online questionnaires instead of paper-and-pencil surveys. They received an invitation via e-mail, and a reminder a week later.

The CareerSKILLS Intervention

The first part of the CareerSKILLS intervention consisted of four sessions during the course of two weeks: two sessions in the first week and two sessions in the second week. The participants followed a return day (the fifth session) six weeks after starting the intervention. All sessions lasted 4 hours, adding up to 20 hours of total intervention time. Participants also received homework assignments to increase transfer to their daily life situation. The intervention used methods such as an active learning process, brainstorming (both in plenary sessions and in subgroup sessions), social modeling, a socially supportive environment, and role-playing. Inoculation against setbacks exercises were built around all the core themes of the intervention by brainstorming about potential obstacles and solutions for these obstacles.

The composition of the exercises in the sessions was based on the six career competencies described earlier. Session 1, "Who Am I and What Am I Good At?," contained exercises with reflection on motivation and reflection on qualities. Participants reflected on the values that were important to them in their career and brainstormed about their personal qualities. At the end of the first session, participants drew a personal emblem in which they elaborated on their achievements, their hidden talents, and their values.

Session 2, entitled "My Passions and My Future," again focused on both reflective career competencies. Participants brainstormed about possible jobs that fit their values, passions, and skills. They were asked to step into a figurative time machine to discover their dream jobs. The second session also focused on career control: participants started an action plan in which they formulated career-related goals on the short term (up to six months), the middle-long term (one to two years), and the long term (three to five years).

Session 3, entitled "My Network and My Action Plan," was built around career control as well. Participants reflected on their action plans and they further refined them. Networking was also a central component of the third session: participants drew an

elaborate map of their network, and they brainstormed about the importance of networking and the possibilities for increasing their personal and professional network.

Session 4, entitled "How Do I Search for Possibilities and How Do I Present Myself?," focused on self-profiling and work exploration. Participants were asked about their values and skills, and the ways in which they exhibited these competencies to significant others. In role-playing exercises, they attempted to present themselves as convincingly as possible to each other. Participants also did an exercise in which they were asked to think of ways to search for career-related opportunities both inside their current organization, inside their current industry, and outside of their current industry. The fourth session ended with a ceremony during which the trainers complimented all participants personally on their active role during the intervention.

Session 5, the return day, was held approximately six weeks after the first session. Participants reflected on their experiences in daily life outside of the intervention and they brainstormed about ways to retain their learning experiences in the future. In this way, they practiced with repeating and retaining information about all six career competencies. After completing the fifth session, participants received an official CareerSKILLS certificate.

The development of the intervention followed the five components for effective group interventions as used in the JOBS program (Price, Friedland, Choi, & Caplan, 1998). These guidelines constitute didactic techniques and delivery methods to maximize active learning processes, and to stimulate self-efficacy and inoculation against setbacks (Vinokur & Schul, 1997). Moreover, their applicability to and relevance for job-related and career-related interventions has been demonstrated (Vuori, Price, Mutanen, Malmberg-Heimonen, 2005; Vuori et al., 2011). First, *career self-management skills* were developed through the incorporation of career competencies; for example, by defining one's strengths and interests, and by finding means to achieve career goals. This component is important because most individuals have insufficient knowledge and skills in this area (Vuori et al., 2005). Second, *active teaching and learning methods* were used. This means that instead of lecturing, the trainers make use of the participants' own knowledge and their context; for instance, in discussions and role-plays. An advantage of active learning is that it takes place in the career context of the participants, which makes the content very specific and applicable to their real-life situation (El-Tannir, 2002). Third, *certified trainers* who lead the sessions are well trained to build trust and facilitate group processes. Fourth, trainers attempt to create a *supportive training environment*, in which participants learn from and support each other. This occurs through modeling and rewarding supportive behaviors (Vuori et al., 2011). A supportive environment is crucial for learning and facing challenges (Vuori et al., 2005). Finally, *preparation against setbacks* is used to brainstorm about potential career-related obstacles and how to overcome these obstacles. This component is important in providing a buffer to potential risks because of fail experiences.

Measurement Instruments

Career competencies were measured with the 21-item Career Competencies Questionnaire (CCQ; Akkermans, Brenninkmeijer, Huibers, et al., 2013). The items were measured on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree). The total scale of career competencies showed excellent internal consistency with alpha values between 0.94 and 0.95. This scale consisted of six subscales:

1. *Reflection on motivation* was measured with three items, a sample item being "I know what I like in my work" (alpha values ranging from 0.81 to 0.87).
2. *Reflection on qualities* was measured with four items. An example of an item is "I know my strengths in my work" (alpha values ranging from 0.85 to 0.92).
3. *Networking* was measured with four items, a sample item being "I know how to ask for advice from members of my network" (alpha values ranging from 0.78 to 0.88).
4. *Self-profiling* was measured with three items. A sample item was "I am able to

show others what I want to achieve in my career" (alpha values ranging from 0.75 to 0.87).
5. *Work exploration* was measured with three items. An example of an item is "I can actively search for the developments in my area of work" (alpha values ranging from 0.72 to 0.88).
6. *Career control* was measured with four items, a sample item being "I can make clear career plans" (alpha values ranging from 0.82 to 0.93).

Work-related self-efficacy was measured with five items based on the criteria as formulated by Bandura (2012). The items were reformulated for use in an occupational setting. The items of this scale, as well of those of all scales below, were measured on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree). Similar scales based on these criteria have been shown to be positively related to well-being, stress appraisals, and social relations (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005). A sample item from this scale is "If difficult problems arise at work I know how to solve them" (alpha values ranging from 0.82 to 0.90).

Resilience against setbacks was measured with a four-item scale based on Brenninkmeijer, Cremer, and Blonk (2005). These items have been used in several studies related to the JOBS methodology (Brenninkmeijer et al., 2005). The scale was adapted to be used in a career setting. An example item from this scale is "I would find a good solution if things would go wrong in my career" (alpha values ranging from 0.81 to 0.90).

Career-related behaviors were measured with a self-constructed five-item scale. Example items from this scale include "I actively shape my career" and "I search for possibilities to positively influence my career" (alpha values ranging from 0.85 to 0.95). This scale was positively related to the other study variables, but no extremely high values were found, thereby supporting the validity of this scale.

Perceived employability was measured with a Dutch version of the eight-item scale of De Cuyper and De Witte (2008). This scale has been shown to be positively correlated with career competencies (Akkermans, Brenninkmeijer, Huibers, et al., 2013), job satisfaction, and employee well-being, and negatively correlated with job insecurity (De Cuyper et al., 2008; De Cuyper & De Witte, 2008). A sample item from this scale is "I could find a different, better job if I wanted to" (alpha values ranging from 0.81 to 0.93).

Work engagement was measured with the nine-item version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006). The items were measured on a 7-point Likert scale ranging from 0 (never) to 6 (always). The UWES items reflect three underlying dimensions, which are measured with three items each: vigor (e.g., "At work I feel bursting with energy"; $\alpha = 0.77$), dedication (e.g., "My work inspires me"; $\alpha = 0.88$), and absorption (e.g., "I get carried away when I am working"; $\alpha = 0.81$). *Emotional exhaustion* was measured with the five-item subscale from the Utrecht Burnout Scale (UBOS; Schaufeli & Van Dierendonck, 2000). The items were measured on a 7-point Likert scale ranging from 0 (never) to 6 (always). One item was deleted from the scale because it clearly reduced the internal consistency of the scale. An example item from this scale is "I feel mentally exhausted because of my work" ($\alpha = 0.88$).

Satisfaction with the intervention was assessed by asking participants to rate each day of the CareerSKILLS intervention on a 5-point Likert scale ranging from 1 (very bad) to 5 (very good). These self-constructed items were formulated as follows: "How would you rate [session number]: *[session title]*?" Cronbach's alpha for the scale score was 0.80.

Strategy of Analysis

Repeated measures multivariate analyses of variance (MANOVAs) were used to test whether there were significant changes in each of the outcome variables across the two conditions between Time 1 (pretest) and Time 3 (six weeks later). We tested for main effects of time and condition, as well as for interaction effects of Time $\times$ Condition. The outcome variables that were used comprised the six career competencies (reflection on motivation, reflection on

qualities, networking, self-profiling, work exploration, and career control), work-related self-efficacy, resilience against setbacks, career-related behaviors, perceived employability, work engagement, and emotional exhaustion as outcome measures. The analyses were performed separately for the two samples in our study.

Results

Descriptive Statistics

Analyses of the descriptive statistics revealed some interesting results. First, participants in the first sample rated the CareerSKILLS intervention on average 4.08 (SD = 0.57). Of all 112 participants, 49.1 percent scored the intervention "very good," 47.3 percent scored it "good," 3.6 percent scored it "neutral," and none of the participants scored it "bad" or "very bad." In Sample 2, the results were comparable (M = 4.11, SD = 0.55). Of the 71 participants, 50.0 percent rated the intervention "very good," 47.2 percent scored it "good," and 2.8 percent scored it "neutral." Again, none of the participants scored the program "bad" or "very bad." These results indicate that the CareerSKILLS intervention was highly appreciated by the participants. Detailed information about the mean scores and standard deviations of the other study variables can be found in Table II. Further

TABLE II **Means and Standard Deviations of the Study Variables (IG = Intervention Group; CG = Control Group)**

	IG T1		IG T2		IG T3		CG T1		CG T3	
Sample 1	***M***	***SD***	***M***	***SD***	***M***	**SD**	**M**	**SD**	**M**	**SD**
Reflection on motivation	3.26	0.84	4.21	0.74	4.19	0.65	3.19	0.88	3.54	0.46
Reflection on qualities	3.22	0.77	4.19	0.68	4.14	0.65	3.35	0.88	3.63	0.48
Networking	3.16	0.74	4.10	0.67	4.04	0.68	3.15	0.75	3.27	0.58
Self-profiling	3.22	0.71	4.09	0.69	4.00	0.75	3.11	0.80	3.44	0.57
Work exploration	3.24	0.67	4.10	0.68	4.04	0.70	3.23	0.66	3.42	0.51
Career control	3.00	0.72	4.05	0.73	4.08	0.74	3.14	0.70	3.34	0.62
Work-related self-efficacy	3.21	0.66	4.03	0.68	3.91	0.70	3.29	0.67	3.37	0.47
Resilience against setbacks	3.15	0.71	4.04	0.70	3.99	0.71	3.11	0.62	3.25	0.46
Career-related behaviors	3.09	0.83	4.10	0.65	4.06	0.72	3.10	0.80	3.25	0.61
Perceived employability	3.09	0.70	4.00	0.68	3.92	0.67	3.06	0.78	3.36	0.55
Work engagement	3.83	0.96	4.20	0.92	4.51	0.81	3.73	1.05	3.60	0.86
Emotional exhaustion	1.64	1.04	1.82	1.21	1.61	1.01	1.67	1.11	1.80	0.93
Sample 2										
Reflection on motivation	3.40	0.87	4.43	0.48	4.23	0.64	3.62	0.69	3.37	0.57
Reflection on qualities	3.29	0.78	4.30	0.56	4.18	0.60	3.57	0.70	3.45	0.67
Networking	2.88	0.74	4.20	0.59	3.91	0.68	3.02	0.70	3.07	0.60
Self-profiling	3.14	0.75	4.25	0.56	4.03	0.61	3.48	0.69	3.33	0.54
Work exploration	3.12	0.77	4.27	0.52	4.11	0.65	3.42	0.49	3.46	0.54
Career control	3.08	0.74	4.28	0.53	4.13	0.58	3.45	0.66	3.28	0.71
Work-related self-efficacy	3.40	0.68	4.11	0.55	3.96	0.57	3.48	0.42	3.37	0.57
Resilience against setbacks	3.26	0.73	4.17	0.63	3.95	0.64	3.46	0.40	3.35	0.54
Career-related behaviors	3.37	0.69	4.26	0.60	4.30	0.65	3.70	0.60	3.45	0.71
Perceived employability	2.76	0.67	3.87	0.66	3.74	0.68	2.89	0.50	3.06	0.55
Work engagement	3.80	1.07	4.09	1.13	4.66	0.87	3.85	1.02	3.98	1.13
Emotional exhaustion	1.40	1.21	1.33	1.12	1.44	1.26	1.42	0.87	1.54	1.27

information about the correlations between the study variables can be obtained from the corresponding author.

CareerSKILLS Effectiveness in Sample 1

We found a significant main effect of time and group on all six career competencies (see Table III). More importantly, all six Time × Condition interaction effects were significant and were in the expected direction: the mean scores significantly increased in the intervention group, but not in the control group, supporting Hypothesis 1. There were significant main effects of time and group for work-related self-efficacy and for resilience against setbacks. Moreover, the Time × Condition interaction effects were significant for both outcome variables, showing a significant increase in mean values for the intervention group, but not for the control group. These findings confirm Hypothesis 2. Significant main effects were also found of time and group for career-related behaviors and for perceived employability. Both Time × Condition interaction effects were significant and in the expected direction, thereby supporting Hypothesis 3. Finally, for work engagement there was a significant effect of time and of group. There was also a significant Time × Group interaction effect in favor of the intervention group. However, no significant effects were found for emotional exhaustion. These results support Hypothesis 4.

CareerSKILLS Effectiveness in Sample 2

The results in Sample 2 were similar to those in Sample 1 (see Table III). We found main effects of time for all six career competencies, demonstrating the positive increase of mean scores between T1 and T3. Significant main effects of group were also found, although the effects for self-profiling and work exploration were only marginally significant. All six interaction effects were significant and in favor of the intervention group, thereby supporting Hypothesis 1. We also found significant main effects of time and group for work-related self-efficacy and resilience against setbacks. The interaction effects were significant and in favor of the intervention group, thereby supporting Hypothesis 2. Main effects of time and group were found for perceived employability and career-related behaviors. Moreover, the interaction effects were significant, supporting Hypotheses 3. Finally, there was a significant effect of time and a significant Time × Condition interaction effect in favor of the intervention group for work engagement, but no significant effects were found for emotional exhaustion. These results support Hypothesis 4.

Because Sample 2 consisted of employees from different age categories, we ran additional analyses to examine whether there were differences in the effectiveness of CareerSKILLS between the group younger than 30 years (identical to Sample 1) and older than 30 years. None of the outcome variables developed differently for the two groups. The only one that came very close to being significant was the group × outcome variable interaction effect of perceived employability ($F(1, 111) = 3.88$, $p = .051$). Hence, CareerSKILLS was generally as effective for participants older than 30 years as it was for those younger than 30 years.

Discussion

Our study aimed to investigate the effectiveness of the CareerSKILLS program, an intervention aiming to stimulate career self-management behaviors and work-related well-being of young employees. This intervention was developed based on the principles of the JOBS program (Caplan et al., 1989). Its exercises are based on the concept of career competencies (Akkermans, Brenninkmeijer, Huibers, et al., 2013), and its working ingredients are self-efficacy (Bandura, 1997), and inoculation against setbacks (Meichenbaum, 1985).

CareerSKILLS distinguishes itself from other career development interventions in several ways. First, the CareerSKILLS program focuses primarily on young employees who are starting their career, a group that has received relatively little research attention so

TABLE III Results of Repeated Measures MANOVA of All Outcome Variables

	Sample 1			Sample 2		
Variable	***F*(1, 171)**	**Wilks' λ**	**η_p^2**	***F*(1, 112)**	**Wilks' λ**	**η_p^2**
Reflection on Motivation						
Time	68.36***	0.71	0.29	7.59***	0.94	0.06
Group	16.77***	—	0.09	12.22***	—	0.10
Time X Group	13.72***	0.93	0.07	25.53***	0.81	0.19
Reflection on Qualities						
Time	53.04***	0.76	0.24	14.17***	0.89	0.11
Group	6.17***	—	0.04	6.42*	—	0.06
Time X Group	15.22***	0.92	0.08	24.61***	0.82	0.18
Networking						
Time	39.32***	0.81	0.19	32.92***	0.77	0.23
Group	26.45***	—	0.13	12.89***	—	0.10
Time X Group	22.86***	0.88	0.12	27.89***	0.80	0.20
Self-Profiling						
Time	48.04***	0.78	0.22	18.92***	0.85	0.15
Group	17.15***	—	0.09	3.62	—	0.03
Time X Group	7.93***	0.96	0.04	38.18***	0.74	0.26
Work Exploration						
Time	46.94***	0.79	0.22	49.05***	0.74	0.26
Group	17.33***	—	0.09	3.16	—	0.03
Time X Group	17.72***	0.91	0.09	33.16***	0.77	0.23
Career Control						
Time	71.50***	0.72	0.30	25.91***	0.81	0.19
Group	13.23***	—	0.07	5.81*	—	0.05
Time X Group	32.95***	0.84	0.16	49.88***	0.69	0.31
Work-Related Self-Efficacy						
Time	29.58***	0.85	0.15	6.69***	0.94	0.06
Group	10.17***	—	0.06	10.92***	—	0.12
Time X Group	17.74***	0.91	0.09	15.17***	0.88	0.12
Resilience against Setbacks						
Time	51.87***	0.77	0.23	11.36***	0.91	0.09
Group	23.82***	—	0.12	5.87*	—	0.05
Time X Group	26.15***	0.87	0.13	20.79***	0.84	0.16
Career-Related Behaviors						
Time	46.87***	0.79	0.22	17.73***	0.86	0.14
Group	20.38***	—	0.11	6.38***	—	0.05
Time X Group	25.70***	0.87	0.13	54.44***	0.67	0.33
Perceived Employability						
Time	55.07***	0.76	0.24	53.22***	0.77	0.32
Group	13.88***	—	0.08	8.53***	—	0.07
Time X Group	12.40***	0.93	0.07	26.68***	0.81	0.19
Work Engagement						
Time	9.34**	0.95	0.05	17.98***	0.86	0.14
Group	19.67***	—	0.10	3.87	—	0.03
Time X Group	19.73***	0.90	0.10	9.99**	0.92	0.08
Emotional Exhaustion						
Time	0.28	1.00	0.02	0.47	1.00	0.04
Group	0.71	—	0.04	0.10	—	0.01
Time X Group	0.62	1.00	0.04	0.14	1.00	0.01

Note: ***$p < .001$; **$p < .01$; *$p < .05$.

far despite the many challenges they face in a brief period of time. Second, CareerSKILLS is an intervention program that focuses both on prevention of negative outcomes (e.g., underemployment) and the promotion of positive outcomes (e.g., employability and work engagement). In this sense, it also bears similarities to amplitive interventions (Ouweneel, Schaufeli, & Le Blanc, 2009), which specifically focus on stimulating positive outcomes for all employees, and to a strength-based approach (Hodges & Clifton, 2004), which centers around positive reinforcement of the strengths that individuals possess, rather than their weaknesses. This may be especially important for our target group of young employees, as a recent study showed that career competencies may act similar to a personal resource in stimulating motivation and well-being (Akkermans, Schaufeli, et al., 2013). Third, CareerSKILLS aims to stimulate career development of all young employees, not only of specific "problem groups" (e.g., the unemployed or dropouts). Last but not least, we expanded the methodology of the JOBS program, which has been shown to be effective in various empirical studies (e.g., Vinokur et al., 1995), with the concept of career competencies (Akkermans, Brenninkmeijer, Huibers, et al., 2013).

In a quasi-randomized control trial, we examined to what extent the intervention influenced career competencies, self-efficacy, resilience against setbacks, career-related behaviors, perceived employability, work engagement, and emotional exhaustion.

In a quasi-randomized control trial, we examined to what extent the intervention influenced career competencies, self-efficacy, resilience against setbacks, career-related behaviors, perceived employability, work engagement, and emotional exhaustion. We tested the intervention in two independent samples: one consisting of students who did extensive internships, and another consisting of participants in a special reintegration program. The first sample was a homogeneous group of young employees with intermediate vocational education. A significant increase was present in the mastery of all career competencies (Hypothesis 1), in work-related self-efficacy and resilience against setbacks (Hypothesis 2), and in career-related behaviors and perceived employability (Hypothesis 3), compared with the control group. Moreover, there was a significant increase in the intervention group of work engagement, but no effect of emotional exhaustion, compared with the control group (Hypothesis 4). These results indicate that the CareerSKILLS intervention is beneficial both in enhancing career self-management and work-related well-being of young workers. Overall, these results demonstrate the short-term effectiveness of the CareerSKILLS intervention for young employees with lower educational levels, and they build on previous work regarding well-being of young workers during the start of their careers (Akkermans et al., 2009; Akkermans, Brenninkmeijer, Van den Bossche et al., 2013).

We cross-validated our results in a second, heterogeneous, independent sample consisting of temporary employees in a reemployment program. The results in this second sample were also in line with our hypotheses. We found a significant increase among participants of the program in their mastery of career competencies (Hypothesis 1), in self-efficacy and resilience against setbacks (Hypothesis 2), and in career-related behaviors and perceived employability (Hypothesis 3), compared with the control group. We also found a significant increase in work engagement, but no effect of emotional exhaustion (Hypothesis 4). In addition, we tested for possible age differences in the second sample. The results show that the intervention was equally effective for employees younger than 30 years and those older than 30 years. These results provide additional support for the short-term effectiveness of the CareerSKILLS intervention, further solidifying the robustness of the findings.

Theoretical Implications

Our findings have several theoretical implications. First, we provided additional support for the notion that career competencies are malleable and may therefore be an important

building block of career development interventions. Moreover, and in line with Akkermans, Brenninkmeijer, Huibers, et al. (2013), we showed that career competencies and perceived employability are closely and positively related, which indicates that career competencies may be important in fostering employability of the young workforce. These results also further support the validity of the framework of career competencies that was brought forward by Akkermans, Brenninkmeijer, Huibers, et al. (2013).

Second, we heed the call of Vuori et al. (2011) in developing and empirically testing a career development intervention. Our results demonstrate that an intervention using the psychological concept of career competencies (Akkermans, Brenninkmeijer, Huibers, et al., 2013) in combination with the active working ingredients of self-efficacy (Bandura, 1997) and inoculation against setbacks (Meichenbaum, 1985), and the five components for effective group interventions used in the JOBS program (Price et al., 1998), may be an effective means of activating *young* workers to proactively manage their career. This may be especially effective when combined with the active learning processes that are part of the intervention (Caplan et al., 1997). As such, this study also further supports the effectiveness of the JOBS methodology. Moreover, our results imply that gaining career competencies, being self-efficacious, and being resilient against potential obstacles may be important concepts in the career development of young workers who are starting their career.

A third implication concerns the effect of the CareerSKILLS program on work engagement, but not on emotional exhaustion. In line with Akkermans, Schaufeli, et al. (2013), this indicates that career competencies are uniquely related to motivation as opposed to strain. Moreover, these findings support the assumption that career competencies are not exclusively related to career development, but also to employee well-being (Akkermans, Schaufeli, et al., 2013). Career competency development may therefore contribute to the development of so-called "smart jobs" (Hall & Las Heras, 2010), as they can stimulate learning, growth, and employability. This further underlines the importance of combining research on job design and career development (Hall & Las Heras, 2010).

Limitations and Suggestions for Future Research

A number of limitations and suggestions for future research need to be addressed. First, although our current results indicate that the effects of the CareerSKILLS intervention remain stable after six weeks, we only have a short-term measure of effectiveness. Burke and Hutchins (2007) emphasized that individuals need time and opportunity to absorb the content of interventions and to implement their new skills and knowledge in practice. According to these researchers, it would be important to use longer retention intervals, preferably even more than one year, to ascertain the transfer effect of intervention designs. Because we developed the CareerSKILLS intervention to stimulate long-term career development and well-being of young employees, it is important that the effectiveness of the intervention is also tested with a longer-term measure, for example, with a 12-month follow-up (e.g., Koivisto et al., 2007).

A second important limitation is that our study included only self-report measures. Although the value of subjective measures with respect to work-related themes of research is increasingly emphasized (e.g., De Cuyper, Van der Heijden, & De Witte, 2011), it only provides limited insight into the actual effectiveness of the CareerSKILLS intervention. This is also a limitation of the CCQ that we used to assess career competencies as it measures perceived competency mastery. An important addition to our current study would be to investigate objective career outcomes of the participants, for example, objective employability measures, such as the actual number of job shifts and/or internal promotions. Moreover, it would be interesting to have supervisors and coworkers fill out the CCQ to gain a better understanding of the actual career competency mastery of employees. We therefore believe it is

important to include these kinds of objective outcome measures in future studies on the CareerSKILLS program in order to investigate the actual effects it has for career development of young employees.

Although CareerSKILLS was primarily developed for young employees, in order to further validate the effectiveness of the program it would be interesting to test it among other groups of employees. As our findings in Sample 2 indicated that the program was equally effective for employees younger than 30 years and older than 30 years, future studies may implement CareerSKILLS among older workers to examine whether they would also experience enhanced career development and well-being after participating in the intervention. Moreover, as especially our second sample was rather small, it would be important to further validate our findings among larger groups of young workers as well.

The CareerSKILLS intervention offers an opportunity for employees to gain additional career competencies and increased self-confidence and resilience against setbacks. It can also stimulate motivation at work, thereby providing the tools for long-term career self-management and employee well-being.

Finally, to be most effective, interventions should focus simultaneously on the individual and the organization level (e.g., Sockoll, Kramer, & Bödeker, 2008). It is therefore interesting to include employees' organizations (schools and working organizations) in future intervention programs; for example, by training supervisors and managers to consolidate the changes in competencies and behaviors (i.e., the transfer) of the participants.

Practical Implications

The CareerSKILLS intervention offers an opportunity for employees to gain additional career competencies and increased self-confidence and resilience agains setbacks. It can also stimulate motivation at work, thereby providing the tools for long-term career self-management and employee well-being. This intervention may therefore be a valuable addition to HR and career guidance programs in organizations. An added advantage is that it is organized in groups, which means that teams or groups of colleagues could potentially be trained simultaneously. In addition, CareerSKILLS may be used as an organizational socialization tactic for newcomers (Saks & Gruman, 2011). This is a practical and effective way of intervening that also fosters the transfer and implementation in daily life because participants can support each other like they do during the program. HR departments could also implement the CareerSKILLS program when faced with downsizing or outplacement programs. For these reasons, the CareerSKILLS intervention could be integrated with career-related HR practices in organizations.

The CareerSKILLS intervention can also be a valuable addition to career guidance programs in intermediate vocational schools. Training students in career competencies and stimulating their self-confidence and resilience in self-managing their career may provide them with a solid basis to complete the school-to-work transition in a healthy and effective way. The CareerSKILLS program may be incorporated in curricula of schools, thereby stimulating students' preparedness for managing their career and supporting them in gaining relevant competencies.

Conclusion

This study provides an empirical intervention study that attempts to bridge a gap between career development and organizational behavior. Specifically, we focus on increasing the career self-management and well-being of young employees through the mastery of career competencies, and through increasing their self-efficacy and resilience against potential setbacks. This career development intervention can contribute both to preventing negative outcomes such as underemployment, and to promoting positive outcomes such as engagement and employability. Therefore, the CareerSKILLS program can be valuable for all young employees, making it broadly applicable in educational settings

and in HRM policies. With our study, we hope to provide a contribution both to theory and to practice with regard to career self-management and employee well-being in the ever changing contemporary career, and we hope to stimulate further research and interventions with regard to career self-management of the young workforce.

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