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The relation of career adaptability to work experience, extracurricular activities, and work transition in Portuguese graduate students

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Abstract: This study analyzed the psychometric properties and the factor structure of the Career Adapt-Abilities Scale (CAAS) – Portugal HE Form with 406 graduate students and explored the relationship between career adaptability, work experience, extracurricular activities and work transition. The analysis allows us to conclude that CAAS can be a valid and useful measurement for assessing career adaptability in Portuguese graduates. The differential analysis evidenced that participants with student worker status and with work experiences reported displayed higher scores on the subscales of control and curiosity, respectively. No statistical differences emerged regarding experience of extracurricular activities. Also, participants who referred to anticipating difficulties in work transition scored significantly lower on the subscales of control than did their peers who do not anticipate difficulties in such transitions. The obtained results support the importance of considering practical experiences and fostering career adaptability during higher education studies as a way to help graduates to manage the transition to professional contexts.

Key-words: career adaptability; work transition; higher education; work experience; extracurricular activities

1. Introduction

Newcomers to the labor market who graduate during challenging economic times are less likely to find a suitable job when compared to graduates who enter the labor market in times of economic growth or prosperity. Also, these newcomers are more likely to experience job mismatch and underemployment (International Labour Office, 2011; Kahn, 2010). Therefore, and especially for young professionals, perspectives become less and less defined and predictable with time, whilst the transitions between jobs tend to be more frequent and difficult (Savickas et al., 2009). Such circumstances have triggered the interest of researchers to study work transitions and to understand the psychological resources that can help to deal with these difficulties. According to Ebberwein, Krieshok, Ulven and Prosser (2004), adaptive individuals have more positive attitudes concerning transitions, think about and plan for their future, anticipate and react to change and know how to achieve realistic goals. Career adaptability has been referred to as a central construct to cope with the predictable and unpredictable tasks and adjustments prompted by the changes in the work world (Savickas, 1997).

Given the importance of understanding the process of work transition among graduates, the present research explored the psychometric properties and the factor structure of the CAAS-Portugal-HE Form, a version of the CAAS-Portugal Form (Duarte et al., 2012) with a sample of Portuguese graduates. Also a relevant aspect is the understanding of what type of experiences can differentiate new graduates in terms of their ability to cope with the university-to-work transition. For this purpose, this study analyzed differences in career adaptability between graduates who reported (1) having a student worker status and regular students; (2) having work experience and graduates who reported not having work experience; and (3) having extracurricular experiences and graduates who referred to not having extracurricular experiences (4) anticipating difficulties in work transition and graduates who reported not anticipating difficulties in work transition.

1.1 Career adaptability

The concept of career adaptability is conceived as helpful for individuals in managing career transitions. Career adaptability comprises four psychosocial resources (Savickas & Porfeli, 2012): concern, which enables individuals to be aware of and plan for a vocational future; control, which regards the self-discipline that allows individuals to become responsible for shaping themselves and their environment to deal with what comes next; curiosity, related to

the tendency to explore possible selves and alternative scenarios; and confidence, which reflects self-efficacy managing career decisions.

Research data has provided evidence that higher levels of career-adaptability resources among adolescents are related to more successful vocational transitions (Creed, Fallon, & Hood, 2009; Creed, Muller, & Patton, 2003; Hirschi, Niles, & Akos, 2011; Vladimir Skorikov, 2007), a sense of power and experience of life satisfaction (Hirschi, 2009) and career decidedness and choice congruence (Hirschi et al., 2011). Concerning young adults and adults, empirical research has presented career adaptability as a predictor for subjective career success (Hirschi, 2010; Zacher, 2014), satisfaction with transition processes (Hirschi, 2010), career satisfaction (Tolentino, Garcia, Restubog, Bordia, & Tang, 2013), subjective well-being (Hartung & Taber, 2008), self-efficacy in job searches (Guan et al., 2013), employment quality (Koen, Klehe, & Van Vianen, 2012) and reemployment quality (Koen, Klehe, Van Vianen, Zikic, & Nauta, 2010; Zikic & Klehe, 2006). Hence, theoretical and empirical research conducted up to the present suggest that career adaptability is an important construct with regard work transitions, particularly among graduates who face the challenge of moving from higher education to professional contexts.

1.2 Work experience

Work experience during higher education has been referred as a significant factor in graduates' transition to the labor market. Although its impact seems to depend on several aspects, such as the professional activity in question being related or not related to the course taken, the duration of that work experience, or even the ability to learn and reflect on those experiences (Knight & Yorke, 2003; Blackwell et al., 2001; Harvey, 2005; Allen & Velden, 2009, 2011; Blasko et al., 2002), there is a general consensus concerning the positive influence of work experience during higher education on preparation for the labor transition. Reported effects include stronger chances of further employment, higher income, and greater satisfaction (Blasko et al., 2002; Smith & Green, 2005; Staff & Mortimer, 2007), as well as the development of mobilization competencies (i.e., the ability to mobilize personal or others' human resources) (Allen & van der Velden, 2011). Several studies have also described work experience as an aspect valued by employers (Association of Graduate Recruiters, 1998; Blasko et al., 2002; Pierce, 2002; Yorke, 2004), hence that promote graduates' employability.

Concerning a career development perspective, students engaged in part-time work seem to be able to develop a clearer understanding of the world of work (Beavis, Curtis, & Curtis, 2005). The active orientation toward the adult world that occurs with work role identification is associated with greater work-related skills and planning during the transition to the labor market (Phillips, Blustein, Jobin-Davis, & White, 2002). In the case of adolescents or young adults, the work environment appears as an opportunity to explore their identities and social roles, to develop vocational skills and to confirm skills and interests (Billett & Ovens, 2007; Mortimer & Zimmer-Gembeck, 2007; Smith & Green, 2005). Also, Creed and collaborators' works have evidenced several differences between students with and without experiences of part-time work, with more positive results for the former group, namely in terms of career maturity, career decision-making, and self-efficacy (Creed, Patton, & Prideaux, 2007; Creed, Prideaux, & Patton, 2005; Creed & Patton, 2003). Despite these general indicators of the positive impact of work experience on the transition to the labor market, empirical research is still scarce concerning the relationship between work experiences and career adaptability resources in higher education students.

1.3 Extracurricular activities

Extracurricular activities are claimed to be of great value, with a positive impact on personal and educational development, promoting the development of life skills and a sense of civic responsibility (Astin & Sax, 1998). For example, participation in academic or student unions is related to higher levels of institutional adaptation, autonomy, facilitating peer relationships

and career development (Almeida, Guisande, & Paisana, 2012). Sports have also been presented as a facilitator of psychological development (Cornelius, 1995) in the fostering self-discipline, teamwork skills, co-operation, self-confidence, and dealing with failure (Lapchick, 1987). Although different effects can be found in the literature among particular leisure activities, Tinsley, Hinson, Tinsley, and Holt (1993) suggested that the benefits related to extracurricular involvement are a result of an individual's experience in leisure rather than the activity itself. This includes cognitive (concentration, challenge, and control) and affective (feelings of freedom, pleasure and competence) effects, which can be transferred to other contexts or experiences. As argued by Allen (1980), perceptions of leisure competence can inform possibilities for work-related competence; in turn, the feeling of competence may have synergistic effects that will influence self-efficacy and empowerment in relation to the career decision-making process. Similar to what has been described for work experience, extracurricular activities provide opportunities for adolescents and young adults to explore, test and receive feedback on possible selves and career directions and to experiment with an adult work role (Konstam & Lehmann, 2011; Munson & Savickas, 1998; Munson, 1993). The existing empirical studies have pointed to a positive relationship between extracurricular activities and career development, namely in terms of career outcomes such as adult occupational choices and work accomplishments (Hong, Milgram, & Whiston, 1993; Tchibozo, 2007). College students who have the opportunity to perceive themselves as competent in their leisure activities seem to demonstrate more clearly defined vocational identities (Munson & Savickas, 1998), and greater strength of control over leisure experience (Konstam & Lehmann, 2011; Wu, Liu, & Wang, 2010). A sense of agency in the leisure roles appears to be related to a sense of identity and life direction in the career roles of college students, expressed through higher scores for career exploration attitudes and career decision-making competence (Munson & Savickas, 1998). Despite general consensus regarding the positive influence of extracurricular activities, the specificities that underlie career development in college students with extracurricular experience in terms of career adaptability resources is still lacking, thus requires further research.

Methods

Participants

A convenience sample of 406 students (51% female) from a public Portuguese university, situated in the north of the country participated in this study. Students were attending the last year of their master's degree programs (postgraduate programs or integrated master's programs, representing, in both cases, a second-cycle degree, of two years duration, in accordance with the Bologna restructuring) in one of four different fields: economics (25%); social sciences (14%); law (13%); and engineering (48%). The average age was 25.60 ($SD = 6.62$) years old. At the time of participation, these students did not have any internship experience. Work experiences considered in this paper refer to activities resulting from the participants' own initiative and not related to the curricular program.

Measure

Career Adapt-abilities Scale-Portugal Higher Education Form

The CAAS-International Form (Savickas & Porfeli, 2012) is comprised of 24 items which combine to form a total score that indicates career adaptability. These 24 items are divided into four subscales of 6 items. Participants responded to each item employing a scale from 1 (not strong) to 5 (strongest). The CAAS-Portugal HE Form, presented in this paper derived from the CAAS-Portugal Form, constructed by Duarte and colleagues (2012)., The CAAS-Portugal HE Form retains the format of the 24 items presented in the CAAS-International Form because higher factor loadings and fit indices were obtained with this version. The

total score for the CAAS-International Form has a reported reliability of .92, while the subscale scores are .83 for concern, .74 for control, .79 for curiosity and .85 for confidence (Savickas & Porfeli, 2012). The reliabilities of the CAAS-Portuguese HE Form and subscales are very similar to the total international sample. The total score of this scale is .92, which is higher than the subscale scores of concern (.81), control (.78), curiosity (.84) and confidence (.86).

Demographic profile, work and extracurricular experiences

A questionnaire was applied to obtain personal information, namely, gender, age and course degree. Given the literature previously identified, it is expected that career resources can be developed through work and extracurricular experiences. For that reason, participants were also questioned about their student status (regular or student worker), previous work experiences and extracurricular involvement. In addition, a single-item concerning the expected difficulties in work transition (“*Do you anticipate any difficulty in your work transition?*”) was also applied, with a dichotomous format (yes/no). We expected that graduates with more extensive career adaptability resources would anticipate less difficulties in work transition. The use of single-item measures has been traditionally discouraged due to the default of estimates of reliability. Nevertheless, it can be considered a valid measure if the construct being measured is sufficiently narrow or is unambiguous to the respondent (Nagy, 2002; Wanous, Reichers, & Hudy, 1997). Examples of that are found in domains such as subjective academic performance, self-esteem and socioeconomic status (Leung & Xu, 2013), self-efficacy in clinical samples (Hoepfner, Kelly, Urbanoski, & Slaymaker, 2011) or job satisfaction (Wanous et al., 1997).

Procedures

Data were collected in the classroom context at the end of the curricular program of each Masters’ degree of the year of 2013/2014, using a paper-and-pencil format, in the presence of a teacher and a member of the research team. It took the students about 30 minutes to complete the two measures that were applied. The aims of the study and anonymity and confidentiality conditions were explained to the participants. After that, all the participants agreed to participate in the study and signed informed consent forms.

Results

Table 1 presents the descriptive statistics of the items and the respective standardized loadings. The item means of the CAAS-Portuguese HE Form show that the typical response was 3 (moderate) or 4 (strong). Skewness and kurtosis values ranged from -.974 to -.101 and -.825 to 1.130, respectively, and for the constructs ranged from -.348 to -.041 and -.452 to -.477, respectively. These values suggest that the items conform to the assumptions of confirmatory factor analysis for this sample. Furthermore, the four subscales correlated from .73 to .90 to the adaptability total score.

Table 1
CAAS-Portuguese HE Form: Items, standardized loadings and descriptive statistics

Construct	Item (first-order indicators)	Mean	SD	Loading
Concern	1. Thinking about what my future will be like	3.91	.84	.61
	2. Realizing that today's choices shape my future	4.28	.72	.64
	3. Preparing for the future	3.93	.75	.80
	4. Becoming aware of the educational and career choices that I must make	3.90	.78	.73
	5. Planning how to achieve my goals	3.88	.76	.68
	6. Concerned about my career	4.10	.86	.42
Control	1. Keeping upbeat	3.76	.91	.51
	2. Making decisions by myself	4.21	.71	.71
	3. Taking responsibility for my actions	4.49	.62	.69
	4. Sticking up for my beliefs	4.29	.70	.70
	5. Counting on myself	4.34	.70	.59
	6. Doing what's right for me	4.16	.78	.49
Curiosity	1. Exploring my surroundings	3.84	.8	.64
	2. Looking for opportunities to grow as a person	4.02	.76	.65
	3. Investigating options before making a choice	3.94	.73	.69
	4. Observing different ways of doing things	3.93	.71	.71
	5. Probing deeply into questions I have	4.01	.70	.71
	6. Becoming curious about new opportunities	4.10	.74	.64
Confidence	1. Performing tasks efficiently	4.14	.64	.73
	2. Taking care to do things well	4.23	.64	.77
	3. Learning new skills	4.15	.67	.70
	4. Working up to my ability	4.48	.62	.66
	5. Overcoming obstacles	4.15	.68	.67
	6. Solving problems	4.16	.68	.67
Construct	Construct (second-order indicators)	Mean	SD	Loading
Adaptability	1. Concern	4.00	.56	.73
	2. Control	4.21	.51	.83
	3. Curiosity	3.97	.55	.88
	4. Confidence	4.22	.50	.90

Confirmatory factor analyzes

Confirmatory factor analysis (CFA) using AMOS 22 software showed that data for the CAAS-Portugal HE Form fit the theoretical model. Table 2 shows the results of a first model, which considers a hierarchical structure where adaptability includes four sub-constructs. Concerning the hierarchical model, two additional adjusted models were calculated. A first hierarchical adjusted model took into account one covariance (|.10|) between error terms associated with a modification index above 40 (correlated items: confidence5 and confidence6). The second adjusted model took into account two more covariances (|.11|and |.13|) between error terms associated with modification index above 25 (correlated items: curiosity1 and curiosity2; control5 and control6).

Table 2

Confirmatory factor analyses of the Career Adapt-Abilities Scale - Portugal HE Form

CAAS - Portugal HE Form	X^2	df	X^2/df	p	GFI	CFI	RMSEA	SRMR
Hierarchical 4 factor model	705,637	248	2.85	<.001	.87	.89	.07	.05
First hierarchical 4 factor adjusted model (MI >40)	657,625	247	2.66	<.001	.88	.90	.06	.05
Second hierarchical 4 factor model (MI >25)	589,982	245	2.41	<.001	.89	.92	.06	.05

A gradual improvement of fit is observable among the three models, with a decreasing of the χ^2/df value from 2.85 to 2.41, which is an acceptable value. GFI and CFI values also gradually improved, reaching values considered to be adequate fit indices. RMSEA decreased slightly from the first to the second model and indicates an acceptable fit, with an upper boundary of .07. SRMR remains stable among the three steps of the analysis, yet also corresponds to an acceptable indicator of the fit model.

Differential studies

In this section, some differential studies for CAAS-Portugal HE Form are presented in order to analyze differences in career adaptability subscales and in the total scale, contrasting groups (i) with student worker status and regular students; (ii) with work experience and without work experience; (iii) with extracurricular experiences and without extracurricular experiences; and (iv) graduates who reported anticipating difficulties in work transition and graduates who reported not anticipating difficulties in work transition. For such purpose, four T-tests were conducted and the Bonferroni-adjustment was used to prevent Type I error rates. Effect sizes were indicated by partial η^2 and evaluated using Cohen's criteria: small = 0.20; medium = 0.50; and large = 0.8. All the analyses were carried out with the statistical package SPSS 22.0 for Windows. The results are described in Table 3. Concerning student status, student workers scored significantly higher than regular students for control ($t=2.791$; $df=396$; $p=.006$; Cohen's $d=.32$). Participants who reported having already had work experience differed from their peers with no experience on the subscale of curiosity ($t=2.603$; $df=404$; $p=.010$; Cohen's $d=.27$). Regarding extracurricular experience, no statistical difference emerged for any of the subscales or the total scale. Lastly, considering work transition, students who anticipated difficulties in this transition expressed significantly lower values for control ($t=-3.011$; $df=395$; $p=.003$; Cohen's $d=-.29$).

Table 3

Means and standard deviations for CAAS-Portugal HE Form considering gender, student status, work experience, extracurricular activities experience and anticipation of difficulties in work transition

Variable		Concern		Control		Curiosity		Confidence		CAAS-Total	
		M	SD	M	SD	M	SD	M	SD	M	SD
Student worker status	Yes (n=103)	4.06	.49	4.33**	.48	4.07	.55	4.31	.49	4.19	.42
	No (n= 303)	3.98	.59	4.17	.52	3.94	.54	4.19	.50	4.07	.45
Work experience	Yes (n=228)	4.04	.54	4.24	.50	4.04**	.52	4.25	.49	4.14	.42
	No (n=178)	3.94	.58	4.17	.53	3.89	.58	4.17	.52	4.05	.46
Extracurricular activities experience	Yes (n=364)	4.01	.57	4.22	.51	3.99	.54	4.23	.50	4.11	.44
	No (n=42)	3.94	.51	4.05	.49	3.83	.58	4.09	.52	3.98	.45
Anticipation of difficulties in work transition	Yes (n=223)	3.96	.52	4.14**	.50	3.93	.55	4.18	.49	4.05	.42
	No (n= 175)	4.06	.61	4.29	.51	4.03	.54	4.25	.52	4.16	.45

** $p < .01$. Significance at 0.01 level using a Bonferroni correction to prevent type I error.

Discussion

In the face of the results from the statistical analyzes presented in this paper, the evidence shows the CAAS- Portugal HE Form to be a powerful measure to study career adaptability for undergraduate students. The obtained results are highly satisfactory in terms of reliability and factor structure, as has been reported previously with the CAAS- International form. The total scale and the four subscales demonstrated satisfactory to excellent internal consistency estimates and a coherent multidimensional, hierarchical structure that fits the theoretical model of career adaptability. Similar results with Portuguese samples were obtained by Duarte and colleagues (2012), who compared high-school students with employed and unemployed adults. This reinforces the precision of this tool with different samples.

The differential studies presented in this paper are intended to explore the construct of career adaptability according to different experiences throughout the educative pathway, and also, to analyze how adaptability resources might differentiate individuals who are asked about the anticipation of difficulties in their transition to the world of work.

The results enhance the association between work experience during higher education and career adaptability resources. In the case of student status, student workers expressed higher levels of control than regular students. In turn, participants who reported having work experience differed from their peers with no work experience on the subscale of curiosity, with higher scores in this dimension. A possible explanation for the emergence of different significant results between these two variables may be the fact that student worker status is generally associated with a thoughtful decision inherent to more consistent and prolonged professional practices, whereas work experience tends to integrate more exploratory and sporadic attitudes. Nonetheless, these results are consistent with previous research. Although no causality may be inferred from our data, higher levels of curiosity displayed by participants with work experience can be related to the opportunity to explore identities, social roles and interests that the contact with work environment promotes (Billett & Ovens, 2007; Mortimer & Zimmer-Gembeck, 2007; Smith & Green, 2005). Control enables individuals to shape themselves and their environment to deal with career challenges and this differentiated student worker status from regular students. This is congruent with previous studies that evidenced the relation of part-time work with higher level of career maturity, career decision-making, and self-efficacy (Creed et al., 2007, 2005; Creed & Patton, 2003).

Concerning extracurricular experiences, the results do not evidence any significant difference between participants with and without this experience, regarding the career adaptability scale and subscales, as would be expected. A possible explanation for this is that the type, duration and context of the extracurricular activities could be interfering with the results, as has been reported in the literature of work experience. Some authors have claimed that the benefits may depend on several aspects, such as the activity being related or not to the course taken, the duration of that work experience, or even the ability to learn from and reflect on those experiences (Knight & Yorke, 2003; Blackwell et al., 2001; Harvey, 2005; Allen & Velden, 2009, 2011; Blasko et al., 2002). This suggests the necessity to control the specificities inherent to graduates' experiences in further analysis, in order to achieve a clearer understanding of the relationship between extracurricular experience and career adaptability resources. Nevertheless, these previous results do not necessarily mean that extracurricular activities have no positive influence in career development. Some other studies have identified effects of extracurricular activities in terms of career outcomes, such as better occupational status or work accomplishments (Hong, Milgram, & Whiston, 1993; Tchibozo, 2007). Hence, a follow-up study following these participants through their professional integration would be useful, in order to obtain a more

complete view of these data.

Participants who do not anticipate experiencing difficulties in the transition to the world of work are those who show a higher level of control in their careers. These data are congruent with the theoretical literature of career adaptability, which describes this construct as an important resource for coping with difficulties associated with life transitions (Savickas, 1997, 2011). This also corroborates empirical studies positively relating vocational abilities such as decision-making, planning, exploration, or confidence to more prepared successful vocational transitions (Creed et al., 2009, 2003; Hirschi et al., 2011; Skorikov, 2007) and a sense of power over time (Hirschi, 2009).

Considering practical implications, these data strengthen the usefulness of fostering and training career adaptability resources. The negative relationship between career adaptability with anticipated difficulties regarding work transition suggests that graduates with higher level of control have a more positive attitude toward work transition and so can be better prepared to deal with the tasks inherent to that challenge. Although further research is lacking to better understand the differences described, this study draws attention to the need to consider practical experiences, namely work experiences and the involvement in activities that go beyond the curricular programs, as a possible way to help young adults manage their transition to professional contexts. Considering that the higher education population in Portugal has become more and more heterogeneous, with different backgrounds and previous experiences (including extracurricular and work experiences), a reminder of the importance of taking into account this diversity when designing intervention actions can be useful. Students with work experience manifested different career adaptability resources than students without work experiences, and that should be considered, either in terms of curriculum design or in terms of career counselling. For example, institutions could provide opportunities for students to integrate their work experiences during their learning, fostering the recognition of their competencies and interests and stimulating reflection about their own pathway.

Some aspects need to be integrated into further studies, such as the duration of work and extracurricular experiences, or if these experiences are study-related or not. Also, follow-up of graduates after their work transition, by undertaking a second analysis of career adaptability resources, would offer important insights into the influence of work experience and extracurricular activities in the development of such resources. This information could be of great value to informing stakeholders about how to develop curricular programs and career interventions that address employment issues, and to prepare future graduates to be better managers of their own careers.

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Highlights

- Reports psychometric characteristics of CAAS-Portugal – HE Form.
- Differential analysis examined assessing career adaptability in graduates
- Satisfactory results in terms of reliability and factor structure
- Graduates with work experience and student worker status differed in CAAS- subscales
- Graduates who anticipate difficulties in work transition scored higher in control subscale

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