

Adolescent–Parent Career Congruence as a Predictor of Job Search Preparatory Behaviors: The Role of Proactivity

Journal of Career Development
1-16

© Curators of the University
of Missouri 2021

Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0894845321992548
journals.sagepub.com/home/jcd



Dian Ratna Sawitri^{1,2} , and Peter A. Creed^{3,4} 

Abstract

Based on social cognitive career theory, we examined the mediating roles of job search self-efficacy and outcome expectations in the relationship between adolescent–parent career congruence and job search preparatory behaviors and investigated the influence of proactivity as a moderator in these direct and indirect relationships. Participants were 236 Grade 10 and 11 Indonesian students (mean age 16 years, 67% male), who were attending a vocational education school and would not be progressing to post–high school study. After controlling for educational achievement, we found congruence to be associated with self-efficacy (24% of variance explained), outcome expectations (23%), and job search preparatory behaviors (46%). Self-efficacy, but not outcome expectations, was related to more preparatory behaviors, and self-efficacy fully mediated between congruence and preparatory behaviors. Proactivity moderated the direct relationships between congruence and self-efficacy and outcome expectations, but not preparatory behaviors, and did not moderate any of the indirect relationships.

Keywords

congruence, job search self-efficacy, job search outcome expectations, job search preparatory behaviors, proactivity

Job search preparatory behaviors are important precursors for individuals prior to them attempting to enter the labor market (van Hooft et al., 2004). For young people, the initial phases of job search occur before they leave school when they begin to think about their occupational future, set career and job goals, and engage in job search preparatory behaviors (van Hooft et al., 2005). Early job search preparatory behaviors and job-seeking experiences broaden the range of potential jobs considered

¹ Faculty of Psychology, Universitas Diponegoro, Semarang, Indonesia

² Center for Career and Capacity Development Studies (CAREERS), Universitas Diponegoro, Semarang, Indonesia

³ School of Applied Psychology, Griffith University, Gold Coast Campus, Queensland, Australia

⁴ Centre for Work, Organisation, and Wellbeing, Griffith University, Brisbane, Queensland, Australia

Corresponding Author:

Dian Ratna Sawitri, Faculty of Psychology, Diponegoro University, Jl. Prof. Soedarto, S.H., Tembalang, Semarang 50275, Indonesia.
Email: dian.r.sawitri@gmail.com

desirable (Barber et al., 1994); are related to active job search behaviors, greater job search effort (Wang & Yan, 2018), higher perceived employability (Chen & Lim, 2012), employment success, and earnings (Linnehan & Blau, 1998); and predict later employment status and job quality (Schwab et al., 1987). Thus, understanding the experiences of young job seekers can shed light on the quality of their early job search processes and can provide information on behaviors and reactions likely to help or impede this. Such knowledge can ultimately inform educators who can better advise students as they prepare to leave their formal education and enter the permanent workforce.

The vast majority of studies examining job search behaviors have tested adults such as employed job seekers (e.g., Blau, 1994; Wanberg et al., 2012; Zimmerman et al., 2012), professional job seekers (e.g., Hughes et al., 2010), unemployed job seekers (e.g., Taggar & Kuron, 2016; Vîrga & Rusu, 2018), and employed and unemployed graduate students (e.g., Onyishi et al., 2015). Some studies also have investigated job search behaviors in college graduates (e.g., Bao & Luo, 2015; Barber et al., 1994), recent university graduates who had not found employment in their final term prior to graduation (e.g., Saks & Asforth, 1999, 2000), final-year university students (e.g., Wang et al., 2017), and students in their final year of vocational education (e.g., Baay et al., 2014). However, to the best of our knowledge, no studies have examined preparatory job search behaviors in young people still at school.

In our study, we investigated job search preparatory behaviors in a sample of Grade 10 and 11 students who were attending a terminating program at a vocational education school in Indonesia. These students were in the exploration stage of considering their career future (Super, 1990), and, as they were not progressing their education after Grade 13 (e.g., they would not be going to university), they were an ideal sample for examining early job-seeking behaviors. We tested theory-driven predictors of job search preparatory behaviors based on the social cognitive career theory (SCCT; Lent et al., 1994, 2000), which is consistent with other studies that have used goal-setting and self-regulatory theories in this area (e.g., Bao & Luo, 2015; van Hooff et al., 2004; Wanberg et al., 2010).

SCCT

SCCT proposes that both person (e.g., personality, gender) and contextual variables (e.g., SES, education) shape learning experiences, which, in turn, affect the development of self-efficacy (i.e., beliefs about the capacity to execute courses of action) and outcome expectations (i.e., beliefs about effects of given actions). Self-efficacy promotes favorable outcome expectations, and both self-efficacy and outcome expectations, independently and together, influence the development of career interests (e.g., activity preference) and career goals (e.g., intention to engage in a career activity). Interests and goals then motivate career choice actions, and these actions generate feedback, which prompts individuals to reflect on their beliefs, expectations, interests, and goals.

SCCT views career actions as the effort directed toward achieving career goals. We operationalized career actions as job search preparatory behaviors. In the course of their development, adolescents will form self-efficacy and outcome expectancy beliefs regarding job search and preparatory behaviors, engage in preparatory behaviors, evaluate their progress, and then adjust their behaviors and strategies depending on how well they perceive they are progressing. SCCT has been used extensively to explain career goals and action behaviors in adolescents (Sawitri & Creed, 2015, 2017), including in international contexts (Sheu & Bordon, 2017).

The current study adds to the existing literature in three ways. First, it extends the applicability of the SCCT to behaviors not previously examined using this approach (i.e., to job search preparatory behaviors). Second, it examines both individual (proactivity) and contextual factors (adolescent–parent career congruence) as predictors of job search preparatory behaviors. Third, while previous studies have examined job search behaviors in collectivistic individuals (e.g., Chinese samples; Bao & Luo, 2015; Wang et al., 2017), no studies have included family-related variables in their models. As family influences are critical for young people when deciding on jobs and preparing for their future

(Leung et al., 2011), we included the important consideration of adolescent congruence with parents regarding career matters.

Job Search Behaviors

Job search behaviors include identifying the existence of potentially attractive employment opportunities and gathering information about these alternatives (Barber et al., 1994; Kanfer et al., 2001), which, from an SCCT perspective, are career actions related to progressing and achieving desired career goals. Thinking about and searching for prospective job openings are salient activities for young people when they are transitioning from school to work. This is an important stage for them as it will affect their future employment and life. To be successful at it, they need to overcome a series of challenges such as obtaining accurate job information, evaluating their own strengths and weaknesses, choosing the most appropriate job vacancies, preparing the required documents, participating in job interviews, and deciding on the “right” job to accept. They need to be dedicated to these tasks and allocate the appropriate resources of time, effort, and energy (Guan et al., 2013; Wanberg et al., 2010).

Blau (1994) differentiated between preparatory and active job search behaviors. In the *preparatory* stage, individuals contemplate their direction and gather information about potential job leads through various sources (e.g., job advertisements, job sites, friends, and family). They then pursue these job leads by engaging in *active* job search behaviors such as contacting and applying to prospective employers. Both preparatory and active job search behaviors are associated with more successful employment outcomes (Blau). In particular, active job search behaviors and job search intensity predicted employment status at graduation, and preparatory job search behaviors predicted employment status 4 months after graduation (Saks & Ashforth, 1999). In the current study, we examined preparatory behaviors and operationalized them as activities associated directly with preliminary job-seeking behaviors (e.g., preparing resume, practice in completing job application forms, role-playing interviews; cf. Blau, 1994) rather than more indirect activities related to career exploration in general (for review, see Jiang et al., 2019).

Previous studies have investigated antecedents to job search behaviors. In adults, financial need and job search self-efficacy are related to greater intensity of both preparatory and active job searching (Blau, 1994; Crossley & Stanton, 2005; Saks & Ashforth, 1999, 2000). In students who intended to work upon graduation, the perception of more positive work norms was related to higher levels of intrinsic motivation, and this in turn predicted higher preparatory job search behaviors and job search intentions (Baay et al., 2014). In final-year university students, emotion regulation strategies predicted more preparatory and job search behaviors and general job search effort, and these relationships were mediated by both anxiety about finding work and job search self-efficacy (Wang et al., 2017). Finally, core self-evaluations were associated with more preparatory, but not active, job seeking in employed and unemployed graduate students, and perceived employability mediated the relationship between the self-evaluations and preparatory behaviors (Onyishi et al., 2015).

We found no studies that examined preparatory and active job search behaviors in high school students. Thus, important contributory factors for these behaviors in this population, such as family influences (Leung et al., 2011; Sawitri & Creed, 2015), have not been tested. One study examined the role of family (i.e., marital status) in a community sample of employed and unemployed adults (van Hooft et al., 2005), but the family plays a much more important role in the goal setting, decision making, and behaviors of young people (Sawitri & Creed, 2017), and the family needs to be considered when examining preparatory and active job search behaviors in adolescents.

We examined the important role of career-related adolescent–parent congruence (i.e., the level of agreement between adolescents and their parents regarding the adolescent’s career goals and career action behaviors; Sawitri et al., 2013), as congruence with parents is seen as desirable for children’s career development (Kenny & Medvide, 2013) and has been shown previously to be related to a range

of adolescent career development behaviors (Sawitri & Creed, 2015, 2017). Also, as our study was based on SCCT (Lent et al., 1994, 2000), we included the main agency variables of self-efficacy and outcome expectations from this model, as these have widespread support for being precursors to career goal setting and career-related actions such as job search preparatory behaviors (Rogers & Creed, 2011).

Adolescent–Parent Career Congruence

Congruence with parents regarding career matters (e.g., on career values, interests, aspirations, plans, and assistance needed; Sawitri et al., 2013), which in SCCT terms is a contextual variable, is important in determining students' self-efficacy information, their expectations for the future, and their career aspirations (Sawitri et al., 2014). In line with this, Sawitri and Creed (2017) demonstrated that self-efficacy carried the effect of perceived career congruence with parents to students' career aspirations, and Sawitri et al. (2015), in a longitudinal study, showed that being congruent with parents regarding career issues predicted students' future career exploration. While congruence with parents regarding career matters has been shown to be related to higher levels of self-efficacy, outcome expectations, and career action behaviors, no studies have tested the relationship between adolescent–parent congruence and preparatory job search behaviors or assessed whether job search self-efficacy and outcome expectations operate as intervening variables. Adolescent–parent career congruence was included in our study as a proximal contextual antecedent to student job search preparatory behaviors.

Individuals are happier, more productive, and fit in better when they have characteristics similar to other members in their environment or if they have complementary characteristics that contribute to others' well-being and effort. In other words, congruence with others is achieved when there are mutually balancing patterns of relevant characteristics between the individual and others (Swanson & Fouad, 1999). When applied to adolescent career development, adolescent–parent career congruence occurs when the career needs of adolescents are met by supportive parents, and parents' needs are met when adolescents can fulfill parents' career expectations, both of which are more likely to occur when there is agreement or similarity between adolescents and parents regarding what career values, goals, and actions are important (Sawitri et al., 2013). Adolescents who are more career congruent with their parents are more likely to develop confidence to engage in job-seeking behaviors and have more positive job search outcome expectations, which, in turn, will lead them to engage in more job search preparatory behaviors.

Job search self-efficacy and outcome expectations are psychological resources that assist individuals to deal with difficulties when engaging in a career transition (Saks & Ashforth, 1999). In such a transition, more confident and optimistic individuals develop the attitudes and strategies to better deal with setbacks and progress their goals (Bao & Luo, 2015; Taggar & Kuron, 2016). For example, job search self-efficacy is related to higher levels of job-seeking intention, intensity, and actions and related to more favorable job outcomes (Guan et al., 2013; Kanfer et al., 2001; Saks et al., 2015), and job search outcome expectations is a strong predictor of the number of job offers received (Saks et al., 2015). Based on the positive associations between congruence and self-efficacy and outcome expectations (Sawitri et al., 2014), and the positive links from job search self-efficacy and outcome expectations to preparatory job search behaviors, we concluded that adolescent–parent congruence would be associated with preparatory job search behaviors by increasing job search self-efficacy and outcome expectations.

Therefore, we hypothesized that adolescent–parent career congruence would be associated with job search self-efficacy (Hypothesis 1), outcome expectations (Hypothesis 2), and job search preparatory behaviors (Hypothesis 3); that job search self-efficacy (Hypothesis 4) and outcome expectations (Hypothesis 5) would be related to job search preparatory behaviors; and job search self-efficacy and

outcome expectations would mediate the relationship between congruence and job search preparatory behaviors (Hypothesis 6).

Proactivity

Proactivity refers to the individual's relatively stable propensity to identify opportunities, initiate change, and shape external environments (Bateman & Crant, 1993; Crant, 2000). In other words, those with a proactive disposition are more likely to express adaptive qualities than passively accept their current situation (Cai et al., 2015; Guan et al., 2017). Parker et al. (2010) proposed that those with higher proactivity are more engaged in goal generation and striving (i.e., "can do" motivation), desire more to create a different future (i.e., "reason to"), and allocate personal resources to these required actions (i.e., "energized to"). Consistent with this, Parker and Collins (2010) conceptualized proactive behavior as involving self-initiated, future-oriented, and change-oriented behaviors. Thus, proactivity is characterized as both an antecedent to preparatory and active job search behaviors and a moderator between other antecedents and these behaviors.

Zacher (2013) demonstrated that more proactive individuals expressed more job search intensity, and Zacher and Bock (2014) found that proactivity moderated the effect of age on job search intensity. Additionally, Bao and Luo (2015) found that proactivity moderated the effects of job search clarity and self-efficacy on active job searching, with the relationships between clarity and self-efficacy on job search behaviors stronger for those with higher proactivity. In previous studies, those with higher proactivity showed greater career initiative (Seibert et al., 2001), adaptability (Cai et al., 2015; Guan et al., 2017), job seeking (Pan et al., 2018), and career success (Fuller & Marler, 2009; Seibert et al., 1999).

Thus, we considered that proactivity would be an important resource for young people, especially when adolescent–parent career congruence was low (i.e., proactivity would influence the relationships between congruence and self-efficacy, outcome expectations, and job search preparatory behaviors). Thus, we incorporated proactivity as a person variable in our model and considered it as a moderator. We expected that when congruence was low, young people higher in proactivity would be better able to generate parental support, satisfy their parents regarding career progress, and work toward developing a harmonious relationship with them. More proactive individuals also should be better able to develop their job search self-efficacy and outcome expectations (cf. Sawitri et al., 2014), which, in turn, should stimulate their engagement in more job search preparatory behaviors. In other words, proactivity should act as a buffer against any adverse effects of low levels of congruence regarding the development of efficacy and outcome expectations beliefs and engaging in job search preparatory behaviors.

Specifically, we hypothesized that the direct and indirect relationships between congruence and job search preparatory behaviors would be influenced by proactivity—first, that proactivity would moderate between congruence and self-efficacy (Hypothesis 7), congruence and outcome expectations (Hypothesis 8), and congruence and preparatory behaviors (Hypothesis 9; the relationships will be stronger when proactivity is higher), and, second, that proactivity would moderate the indirect relationship with preparatory behaviors via self-efficacy and outcome expectations (Hypothesis 10; the relationships will be stronger when proactivity is higher).

The Current Study

Research on preparatory job search behaviors in adolescents is very limited; most studies have been restricted to young adults and adults (Saks et al., 2015). We examine the mediating roles of job search self-efficacy and outcome expectations in the relationship between congruence and job search preparatory behaviors and investigate the influence of proactivity as a moderator in these direct and indirect

relationships. Informed by SCCT, we conceptualized adolescent–parent career congruence as a contextual variable, proactivity as a person factor, and preparatory job search behaviors as actions, all salient variables for Grades 10 and 11 students who were not progressing to post–high school study.

Method

Participants

Participants were 236 adolescent students ($M_{\text{age}} = 16.21$ years, 66.5% male) who were attending a 4-year (Grades 10–13) vocational high school in Semarang, Central Java, Indonesia. There were 123 (52.1%) from Grade 10 and 113 (47.9%) from Grade 11. The students were enrolled in trades-oriented programs, including electrical (32.6%), audio–video (22%), construction (16.9%), light vehicle (13.1%), mechanical (8.1%), and computer- and network-based engineering (7.2%). When asked to indicate their typical grades achieved in school, two (.8%) indicated “low achievement,” 69 (29.3%) “average,” 153 (64.8%) “above average,” and 12 (5.1%) “well above average.” Two students (.8%) reported that their financial situation was “much worse” than their peers, 27 (11.4%) “a little worse,” 167 (70.8%) “about the same,” 32 (13.6%) “a little better,” and 8 (3.4%) “a lot better.”

In Indonesia, vocational high schools are separate and distinct from general high schools, which offer an academic curriculum aimed at preparing students for university studies. Vocational high schools were established in 2006 to improve the skills of those not attending higher education and to reduce unemployment. The goal is to eventually increase the ratio of vocational to general high schools to above 50:50. To this end, the Indonesian government allocated more public funds in 2015 to vocational than to general secondary education (Mahirda & Wahyuni, 2016).

The focus in vocational high schools is on helping students prepare for work, and many will leave school during their final 3 years of education to take up employment. Students study ~50% vocational skills and ~50% general subjects and in Grade 13 spend their time undertaking internships that give them work experience and open up employment opportunities. They also attend weekly guidance classes where they can explore their own interests and competencies, learn about the skills needed for the world of work, and practice job interviewing and job seeking to facilitate their transition to employment. Those not in employment at the end of their internship year will enter the labor market as job seekers.

Materials

The survey booklet contained scales tapping adolescent–parent career congruence, job search self-efficacy, job search outcome expectations, job search preparatory behaviors, and proactivity, along with questions on age, gender, socioeconomic status, and educational achievement.

Adolescent–parent career congruence. The 12-item Adolescent–Parent Career Congruence Scale (Sawitri et al., 2013) was used to assess the level of congruence between students and their parents regarding career aspirations, planning, and exploration. A sample item is “My parents approve of the plans I am making for my future career.” Students rated each statement on a 6-point Likert-type scale, which ranged from 1 (*strongly disagree*) to 6 (*strongly agree*); higher scores indicate greater congruence with parents. Cronbach’s α s of .87 and .89 have been reported, and support for validity was demonstrated by finding expected correlations with measures of living up to parental expectations, life satisfaction, and parental support in Indonesian high school samples (Sawitri & Creed, 2017; Sawitri et al., 2013). Cronbach’s α in the current study was .86.

Proactive personality. We used the 10-item shortened version of Bateman and Crant’s (1993) Proactive Personality Scale (Seibert et al., 2001) to measure participants’ disposition to take personal initiative in

a variety of activities and situations. Students rated statements such as “If I see something I don’t like, I fix it” on a 6-point Likert-type scale, which ranged from 1 (*strongly disagree*) to 6 (*strongly agree*), where higher scores indicate higher proactivity. Cronbach’s α s of $> .90$ have been reported, and validity was demonstrated by finding expected correlations with STEM major commitment, active planning, and behavioral disengagement (Major et al., 2012). Cronbach’s α in the current study was .83.

Job search self-efficacy. The 10-item Job Search Self-efficacy—Behaviour subscale from the Job Search Self-efficacy Scale assesses confidence in successfully performing specific job search behaviors and obtaining employment (Saks et al., 2015). Students indicated their confidence for a range of job-seeking behaviors, such as to “Plan and organize a weekly job search schedule,” on a 6-point Likert-type scale, which ranged from 1 (*not at all confident*) to 6 (*totally confident*). Higher scores indicate greater job search self-efficacy. A Cronbach’s α of .89 has been reported, and validity was evidenced by finding positive relationships with job-seeking intentions and the number of job offers (Saks et al., 2015). Cronbach’s α for the present study was .92.

Job search outcome expectations. We used the 10-item Job Search Outcomes subscale from the Job Search Self-efficacy Scale (Saks et al., 2015) to measure expectations of success resulting from job seeking. Students indicated their beliefs for each outcome, such as “Obtain more than one good job offer,” on a 6-point Likert-type scale, which ranged from 1 (*not at all confident*) to 6 (*totally confident*). Higher scores indicate greater positive expectations. A Cronbach’s α of .96 has been reported, and validity was supported by finding positive associations with job-seeking behaviors and the number of job offers (Saks et al., 2015). Cronbach’s α for the present study was .95.

Preparatory job search behaviors. This was assessed using the six-item Preparatory Job Search Behavior subscale from the 12-item Job Search Behavior Scale (Blau, 1994). Students indicated the extent to which they engaged in preparatory job search behaviors in the last 6 months using a 6-point Likert-type scale, which ranged from 1 (*never*) to 6 (*very frequently*). A sample item is “Prepared or revised your resume.” Higher scores indicate greater preparatory job search behavior. A Cronbach’s α of .94 has been reported, and evidence for validity was provided by finding expected correlations with problem-focused coping, psychological capital, and employability (Chen & Lim, 2012). Cronbach’s α was .83.

Translation Procedures

Scale items were translated from English to Bahasa Indonesian using the translation–back-translation technique (Brislin, 1986), where (a) two bilingual speakers translated the items into Bahasa, (b) two monolingual speakers examined the readability of the translations, (c) two other bilingual speakers blindly back-translated the items into English, and (d) the back-translation was compared with the original version by both authors and other independent academics to confirm the accuracy of translation and ensure semantic equivalence. The content of the items was examined for meaningfulness in the Indonesian context (some slight adjustments were made at this point). Finally, (e) six Indonesian students (three Grade 10 and three Grade 11) checked the final items for readability.

Procedure

The study was conducted with approval from the authors’ university ethics committee, the province education authorities, the participating school, the students’ parents, and the students themselves, who signed their own consent forms. Participation was voluntary, and those who did not join the study were set another activity by the class teacher. The anonymous questionnaires were administered by research assistants and the first author in class time at school. Questionnaires were returned to the researchers

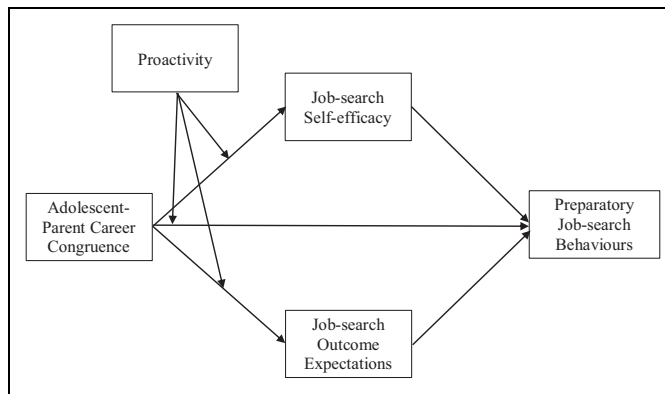


Figure 1. Job search self-efficacy and outcome expectations mediate the relationship between adolescent–parent career congruence and preparatory job search behaviors (Hypothesis 6), and these direct and indirect relationships (Hypothesis 10) are conditional on the level of proactivity.

directly, and no individual responses were made available to the school. A total of 350 questionnaires were distributed, and 255 were returned (73% response rate), although 19 were discarded as they were incomplete or had patterned responses. This left 236 participants in the study.

Results

The analyses were conducted using Amos Version 24. The five latent variables (adolescent–parent congruence, proactivity, self-efficacy, outcome expectations, and preparatory job search behaviors) were each represented by two, multi-item parcels (Kline, 2015; Landis et al., 2000). As item-level data are more prone to having low reliability, less communality, a smaller ratio of common-to-unique factor variance, and distributional violations than aggregate-level data, item parcels are preferred, particularly when sample sizes are relatively small (Little et al., 2002). Parcels have more, smaller, and more equal scale point intervals than items, reduce the number of parameters to be estimated, provide more stable estimates, increase reliability of the measures, reduce the risk of violating assumptions of normality, and generate more parsimonious models to be interpreted (Hau & Marsh, 2004). We created the parcels by subjecting each scale to an exploratory factor analysis, rank-ordering the items by factor loadings, and then allocating a mixture of high and low loading items to each parcel to ensure that the parcels were balanced in terms of how they measured each construct (Little et al., 2002).

The interaction latent variable was created using the two-step residual centering approach (Little et al., 2006; Steinmetz et al., 2011). First, the product of the indicators for the congruence and proactivity latent variables was calculated (i.e., Congruence Indicator 1 \times Proactivity Indicator 1 and 2; Congruence Indicator 2 \times Proactivity Indicator 1 and 2; giving four product terms). These then were regressed onto the congruence and proactivity indicators, and the residuals from these analyses were used as indicators for the latent variable interaction term. The residual centering approach avoids statistical dependency between first-order indicators and those of the latent product variable, as residuals are used to form the indicators (Little et al., 2006; Steinmetz et al., 2011).

We assessed a measurement model to confirm that all latent variables could be represented by their parcels and were independent of one another. We then used procedures recommended by Shrout and Bolger (2002) to assess the direct and indirect relationships reported in Figure 1. Finally, using the same procedures, we tested the direct and indirect effects of the moderator. The 95% bias-corrected confidence intervals (CIs; 1,000 bootstrap samples, as recommended by Hair et al., 2010) were used to identify significant indirect effects (i.e., when the 95% CIs for the indirect effect do not contain zero;

Table 1. Summary Data and Bivariate Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Congruence	53.07	8.17	—	.48***	.44***	.42***	.31***	-.10	.22**	.17**	-.03
2. Proactivity	45.82	5.85		—	.68***	.60***	.54***	-.07	.17**	.10	.11
3. Self-efficacy	97.90	12.51			—	.80***	.61***	-.11	.22**	.09	-.01
4. Outcome expectations	47.55	6.32				—	.50***	-.12	.26***	.15*	-.07
5. Preparatory behaviors	26.71	4.78					—	-.05	.14*	.12	.12
6. Age	16.21	.68						—	.08	.02	.08
7. Educational achievement	2.74	.56							—	.15*	-.09
8. SES	3.07	.65								—	-.01
9. Gender	—	—									—

Note. $N = 236$. SES = socioeconomic status.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Preacher & Hayes, 2008). For moderation, a significant path from the interaction term to an outcome indicates a moderation effect (Steinmetz et al., 2011). Model fit was assessed using χ^2 (with 12 observed variables and a sample size < 250 , a significant χ^2 is expected), χ^2/df (< 3.0 indicates a good fit), the comparative fit index ($CFI \geq .92$), and the root mean square error of approximation ($RMSEA < .08$; Hair et al., 2010). The measurement model fit the data well, $\chi^2(25) = 40.18$, $p = .028$, $\chi^2/df = 1.60$, $CFI = .99$, and $RMSEA = .05$. All factor loadings were significant ($p < .001$; range .80–.97), and the correlations among the latent variables were similar to those among the observed variables. See Table 1 for summary data.

Testing Direct and Indirect Relationships

First, we tested the structural model (see Figure 1) without the interaction term. Fit indices for this model were good, $\chi^2(15) = 24.82$, $p = .05$, $\chi^2/df = 1.65$, $CFI = .99$, and $RMSEA = .05$. In this model, congruence was related to self-efficacy ($\beta = .49$, $p < .001$) and outcome expectations ($\beta = .48$, $p < .001$), and self-efficacy ($\beta = .71$, $p < .001$), but not outcome expectations ($\beta = -.03$, $p = .81$), was related to preparatory behaviors. We then assessed the direct relationship between congruence and preparatory behaviors, which was significant ($\beta = .40$, $p < .001$). After this, we tested a direct and indirect effects model, finding that the direct relationship between congruence and preparatory behaviors disappeared ($\beta = .09$, $p = .19$), but the indirect relationship to be significant ($CI_{95}: .20-.43$). As the relationship between outcome expectations and preparatory behaviors was not significant, the indirect effect operated via self-efficacy. Effect sizes were medium for self-efficacy ($R^2 = .24$) and outcome expectations ($R^2 = .23$) and large for preparatory behaviors ($R^2 = .46$). The standardized indirect effect of congruence on preparatory behaviors was large ($R^2 = .31$; see Figure 2).

Testing Effects of Proactivity as Moderator

For the effects of proactivity as moderator, we added proactivity and the interaction term (Congruence \times Proactivity) to the mediation model and included paths from proactivity and the interaction term to self-efficacy, outcome expectations, and preparatory behaviors. For this model, which also had a good fit, $\chi^2(60) = 81.72$, $p = .03$, $\chi^2/df = 1.36$, $CFI = .99$, and $RMSEA = .04$; proactivity was related to self-efficacy ($\beta = .72$, $p < .001$), outcome expectations ($\beta = .59$, $p < .001$), and preparatory behaviors ($\beta = .28$, $p = .01$); and the interaction term was related to self-efficacy ($\beta = -.11$, $p = .02$) and outcome expectations ($\beta = -.23$, $p < .001$) but not to preparatory behaviors ($\beta = -.06$, $p = .29$). We added these significant paths to Figure 2. These results indicated that proactivity moderated the direct relationships between congruence and self-efficacy and outcome expectations but not preparatory

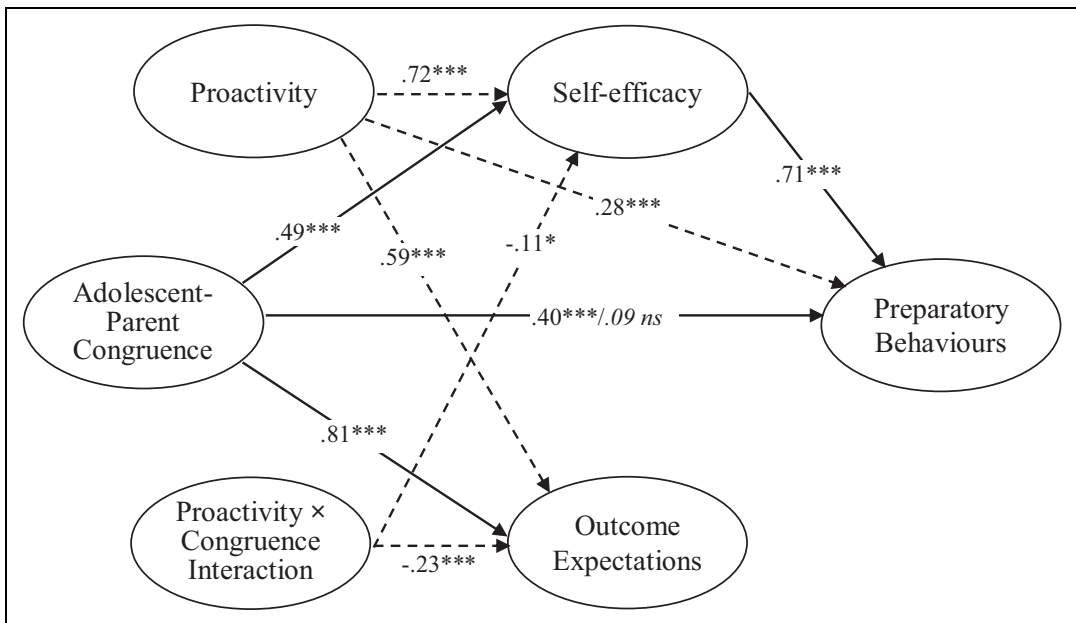


Figure 2. Standardized β weights. Note. Solid lines indicate mediation analysis (italics indicate effect when indirect effects are included); dashed lines indicate moderation analysis.

behaviors. For congruence on both self-efficacy and outcome expectations, those with low proactivity benefited disproportionately more as congruence increased, compared to those with higher levels of proactivity. See Figure 3, where we plotted the interaction effects using regression coefficients. Finally, we found no significant indirect effect for the interaction term on preparatory behaviors via self-efficacy and outcome expectations ($CI_{95}: -.03$ to $.01$), indicating no indirect moderation.

Discussion

This study demonstrated that job search self-efficacy mediated the relationship between adolescent–parent career congruence and preparatory job search behaviors. This suggests that job search self-efficacy served as the primary mechanism by which congruence with parents regarding career matters exerted its effect on preparatory job search behaviors. These findings are in line with previous studies showing robust links between self-efficacy and job search–related outcomes (e.g., Guan et al., 2013) and consistent with previous research that found mediating effects for self-efficacy in the relationships between career congruence with parents and young people’s action behaviors (e.g., Sawitri et al., 2014).

Our findings also showed that the proactivity by congruence interaction was associated with self-efficacy and outcome expectations, although there was no significant indirect effect for the interaction on preparatory behaviors via self-efficacy and outcome expectations. These results indicated that both self-efficacy and outcome expectations were higher for those with higher levels of proactivity, irrespective of their level of congruence, whereas self-efficacy and outcome expectations increased for those with lower proactivity as their congruence increased. This suggests that higher levels of congruence operate to bolster self-efficacy and outcome expectations when proactivity is lower. Thus, while those higher in proactivity might be more internally driven to initiate actions rather than react passively to environmental constraints (Crant, 2000; Tolentino et al., 2014), those lower in proactivity are likely

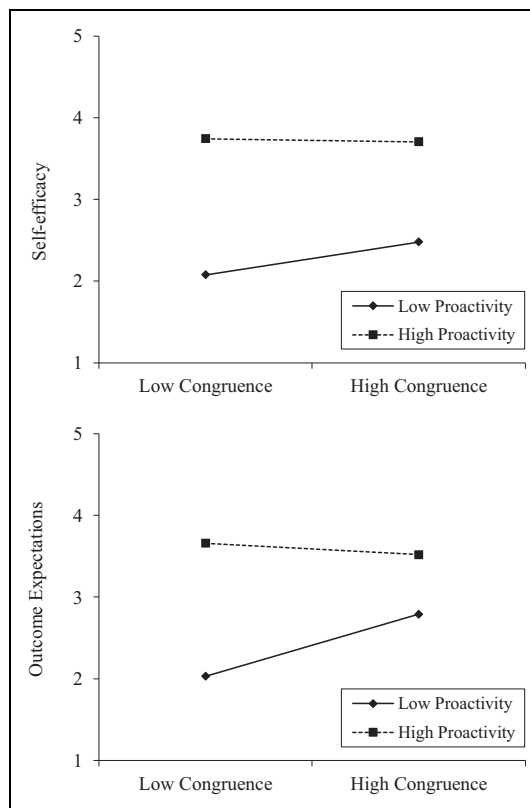


Figure 3. Proactivity moderates the relationship between congruence and self-efficacy (top figure) and between congruence and outcome expectations (bottom figure).

to benefit from contextual supports—in this case, parental support—when progressing their goals and actions.

The study expands our understanding of the role of proactivity in the development of vocational students' job search self-efficacy, outcome expectations, and preparatory job search behaviors. By testing moderation, the study identified an important boundary condition that influenced the association between adolescent–parent career congruence and job search self-efficacy and outcome expectations. While educators often encourage students to engage with their parents on career matters (Sawitri & Creed, 2017; Sawitri et al., 2014), little effort has been devoted to examining how the level of agreement or congruence with parents might influence career development. Our findings showed that congruence with parents was related to students' self-efficacy and outcome expectations and that it was especially important for those with lower proactivity. Our findings also contribute to the literature on SCCT by demonstrating that an important person factor (i.e., proactivity) interacted with family contextual factors (i.e., congruence with parents) to foster self-efficacy and outcome expectations (i.e., job-seeking beliefs and expectations).

Practical Implications

Students and parents need to be aware that a high level of adolescent–parent career congruence is conducive to the development of job search self-efficacy and outcome expectations, as these, in turn, can influence their engagement in job search preparatory behaviors, especially job search self-efficacy,

which was shown to be the case in the present study. Additionally, congruence is especially important for students who are less proactive, and parents of these children need to encourage their child's proactivity development and ensure they are involved and supportive of their career development. These parents can exert effort and contribute resources to building career congruence with their children, for example, by being involved in their child's career exploration and planning and discussing career options with them, as this will help them develop their job search efficacy and outcome expectations. Children whose level of proactivity is high will more actively initiate changes and modify their environment, as the development of their self-efficacy and outcome expectations does not depend disproportionately on congruence with parents.

Educators and practitioners should consider both the young person's level of proactivity as well as their family relationships when designing or recommending an intervention to increase engagement in job-seeking activities. Educators can encourage students to exercise proactivity (e.g., be more involved in decision making, take more responsibility; Green et al., 2019), as it can serve as a protective factor for young people generally and in the career domain. Finally, interventions to improve proactivity in the career area have been devised and evaluated (e.g., Green et al., 2019), and these could be implemented and assessed regarding their effectiveness with young people whose congruence with parents is low.

Limitations and Directions of Future Research

First, participants for the study were drawn from one vocational school in Indonesia, and thus, the findings should be interpreted cautiously when they are generalized to other vocational school students and to general community schools in Indonesia as well as more widely. The imperative for early preparatory job-seeking behaviors, for example, might not be as strong in general community schools, and other vocational schools might have different timelines for these activities. The study sample also contained more boys than girls, and while gender was not correlated with any of the study variables, future studies might confirm that gender is not an issue. The study was conducted in a developing, collectivist country, and future studies need to confirm the results in other communities. For example, in more developed, individually oriented cultures, adolescent–parent career congruence might not play such an important role in the development of job search activities. Finally, we used a cross-sectional design; thus, strong causative conclusions cannot be drawn. Ideally, future research will be able to test these relationships across time and provide stronger support for the hypothesized directions of influence.


Declaration of Conflicting Interests


The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Dian Ratna Sawitri  <https://orcid.org/0000-0003-3446-6362>

Peter A. Creed  <https://orcid.org/0000-0002-8671-501X>

References

- Baay, P. E., van Aken, M. A., van der Lippe, T., & de Ridder, D. T. (2014). Personality moderates the links of social identity with work motivation and job searching. *Frontiers in Psychology, 5*, 1–8. <https://doi.org/10.3389/fpsyg.2014.01044>

- Bao, Z., & Luo, P. (2015). How college students' job search self-efficacy and clarity affect job search activities. *Social Behavior and Personality, 43*, 39–52. <https://doi.org/10.2224/sbp.2015.43.1.39>
- Barber, A. E., Daly, C. L., Giannantonio, C. M., & Phillips, J. M. (1994). Job search activities: An examination of changes over time. *Personnel Psychology, 47*, 739–766. <https://doi.org/10.1111/j.1744-6570.1994.tb01574.x>
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior, 14*, 103–118. <https://doi.org/10.1002/job.4030140202>
- Blau, G. (1994). Testing a two-dimensional measure of job search behavior. *Organizational Behaviour and Human Decision Processes, 59*, 288–312. <https://doi.org/10.1006/obhd.1994.1061>
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137–164). Sage.
- Cai, Z., Guan, Y., Li, H., Shi, W., Guo, K., Liu, Y., Li, Q., Han, X., Jiang, P., Fang, Z., & Hua, H. (2015). Self-esteem and proactive personality as predictors of future work self and career adaptability: An examination of mediating and moderating processes. *Journal of Vocational Behavior, 86*, 86–94. <https://doi.org/10.1016/j.jvb.2014.10.004>
- Chen, D. J., & Lim, V. K. (2012). Strength in adversity: The influence of psychological capital on job search. *Journal of Organizational Behavior, 33*, 811–839. <https://doi.org/10.1002/job.1814>
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management, 26*, 435–462. <https://doi.org/10.1177/014920630002600304>
- Crossley, C. D., & Stanton, J. M. (2005). Negative affect and job search: Further examination of the reverse causation hypothesis. *Journal of Vocational Behavior, 66*, 549–560. <https://doi.org/10.1016/j.jvb.2004.05.002>
- Fuller, B., Jr., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the proactive personality literature. *Journal of Vocational Behavior, 75*, 329–345. <https://doi.org/10.1016/j.jvb.2009.05.008>
- Green, Z., Noor, U., & Hashemi, M. (2019). Furthering proactivity and career adaptability among university students: Test of an intervention. *Journal of Career Assessment, 27*(1), 198–219. <https://doi.org/10.1177/1069072719870739>
- Guan, Y., Dai, X., Gong, Q., Deng, Y., Hou, Y., Dong, Z., Wang, L., Huang, Z., & Lai, X. (2017). Understanding the trait basis of career adaptability: A two-wave mediation analysis among Chinese university students. *Journal of Vocational Behavior, 101*, 32–42. <https://doi.org/10.1016/j.jvb.2017.04.004>
- Guan, Y., Deng, H., Sun, J., Wang, Y., Cai, Z., Ye, L., Fu, R., Wang, Y., Zhang, S., & Li, Y. (2013). Career adaptability, job search self-efficacy and outcomes: A three-wave investigation among Chinese university graduates. *Journal of Vocational Behavior, 83*, 561–570. <https://doi.org/10.1016/j.jvb.2013.09.003>
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (7th ed.). Pearson Prentice Hall.
- Hau, K.-T., & Marsh, H. W. (2004). The use of item parcels in structural equation modelling: Non-normal data and small sample sizes. *British Journal of Mathematical and Statistical Psychology, 57*, 327–351. <https://doi.org/10.1111/j.2044-8317.2004.tb00142.x>
- Hughes, L. W., Avey, J. B., & Nixon, D. R. (2010). Relationships between leadership and followers' quitting intentions and job search behaviors. *Journal of Leadership and Organizational Studies, 17*, 351–362. <https://doi.org/10.1177/1548051809358698>
- Jiang, Z., Newman, A., Le, H., Presbitero, A., & Zheng, C. (2019). Career exploration: A review and future research agenda. *Journal of Vocational Behavior, 110*, 338–356. <https://doi.org/10.1016/j.jvb.2018.08.008>
- Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology, 86*, 837–855. <https://www.apa.org/pubs/journals/apl/>
- Kenny, M., & Medvide, M. B. (2013). Relational influences on career development. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 329–356). Wiley.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford Press.
- Landis, R. S., Beal, D. J., & Tesluk, P. E. (2000). A comparison of approaches to forming composite measures in structural equation models. *Organizational Research Methods, 3*, 186–207. <https://doi.org/10.1177/109442810032003>

- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*, 36–49. <https://doi.org/10.1037//0022-0167.47.1.36>
- Leung, S. A., Hou, Z.-J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural-values orientation on career decision-making difficulties of Chinese university students. *Journal of Vocational Behavior, 78*, 11–20. <https://doi.org/10.1016/j.jvb.2010.08.004>
- Linnehan, F., & Blau, G. (1998). Exploring the emotional side of job search behavior for younger workforce entrants. *Journal of Employment Counseling, 35*, 98–113. <https://doi.org/10.1002/j.2161-1920.1998.tb00992.x>
- Little, T. D., Bovaird, J. A., & Widaman, K. F. (2006). On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables. *Structural Equation Modeling, 13*, 497–519. https://doi.org/10.1207/s15328007sem1304_1
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal, 9*, 151–173. https://doi.org/10.1207/s15328007sem0902_1
- Mahirda, K., & Wahyuni, H. (2016). Returning to general and vocational high-schools in Indonesia. *Review of Economic & Business Studies, 9*, 9–28. <https://doi.org/10.1515/rebs-2016-0031>
- Major, D. A., Holland, J. M., & Oborn, K. L. (2012). The influence of proactive personality and coping on commitment to STEM majors. *The Career Development Quarterly, 60*, 16–24. <https://doi.org/10.1002/j.2161-0045.2012.00002.x>
- Onyishi, I. E., Enwereuzor, I. K., Ituma, A. N., & Omenma, J. T. (2015). The mediating role of perceived employability in the relationship between core self-evaluations and job search behaviour. *Career Development International, 20*, 604–626. <https://doi.org/10.1108/CDI-09-2014-0130>
- Pan, J., Guan, Y., Wu, J., Han, L., Zhu, F., Fu, X., & Yu, J. (2018). The interplay of proactive personality and internship quality in Chinese university graduates' job search success: The role of career adaptability. *Journal of Vocational Behavior, 109*, 14–26. <https://doi.org/10.1016/j.jvb.2018.09.003>
- Parker, S. K., Bindl, U., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management, 36*, 827–856. <https://doi.org/10.1177/0149206310363732>
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management, 36*, 633–662. <https://doi.org/10.1177/0149206308321554>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Rogers, M. E., & Creed, P. A. (2011). A longitudinal examination of adolescent career planning and exploration using a social cognitive career theory framework. *Journal of Adolescence, 34*, 163–172. <https://doi.org/10.1016/j.adolescence.2009.12.010>
- Saks, A. M., & Ashforth, B. E. (1999). Effects of individual differences and job search behaviors on the employment status of recent university graduates. *Journal of Vocational Behavior, 54*, 335–349. <https://doi.org/10.1006/jvbe.1998.1665>
- Saks, A. M., & Ashforth, B. E. (2000). Change in job search behaviors and employment outcomes. *Journal of Vocational Behavior, 56*, 277–287. <https://doi.org/10.1006/jvbe.1999.1714>
- Saks, A. M., Zikic, J., & Koen, J. (2015). Job search self-efficacy: Reconceptualizing the construct and its measurement. *Journal of Vocational Behavior, 86*, 104–114. <https://doi.org/10.1016/j.jvb.2014.11.007>
- Sawitri, D. R., & Creed, P. A. (2015). Perceived career congruence between adolescents and their parents as a moderator between goal orientation and career aspirations. *Personality and Individual Differences, 81*, 29–34. <https://doi.org/10.1016/j.paid.2014.12.061>

- Sawitri, D. R., & Creed, P. A. (2017). Collectivism and perceived congruence with parents as antecedents to career aspirations: A social cognitive perspective. *Journal of Career Development, 44*, 530–543. <https://doi.org/10.1177/0894845316668576>
- Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2013). The Adolescent-Parent Career Congruence Scale: Development and initial validation. *Journal of Career Assessment, 21*, 210–226. <https://doi.org/10.1177/1069272712466723>
- Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2014). Parental influences and adolescent career behaviours in a collectivist cultural setting. *International Journal for Educational and Vocational Guidance, 14*, 161–180. <https://doi.org/10.007/s10775-013-9247-x>
- Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2015). Longitudinal relations of parental influences and adolescent career aspirations and actions in a collectivist society. *Journal of Research on Adolescence, 25*, 551–563. <https://doi.org/10.1111/jora.12145>
- Schwab, D. P., Rynes, S. L., & Aldag, R. J. (1987). Theories and research on job search and choice. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 5, pp. 129–166). JAI Press.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology, 84*, 416–427. <https://www.apa.org/pubs/journals/apl/>
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology, 54*, 845–874. <https://doi.org/10.1111/j.1744-6570.2001.tb00234.x>
- Sheu, H.-B., & Bordon, N. (2017). SCCT research in the international context: Empirical evidence, future directions, and practical implications. *Journal of Career Assessment, 25*, 58–74. <https://doi.org/10.1177/1069072716657826>
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies. *Psychological Methods, 7*, 422–445. <https://doi.org/10.1037/1082-989X.7.4.422>
- Steinmetz, H., Davidov, E., & Schmidt, P. (2011). Three approaches to estimate latent interaction effects: Intention and perceived behavioral control in the theory of planned behavior. *Methodological Innovations Online, 6*, 95–110. <https://doi.org/10.4256/mio.2010.0030>
- Super, D. E. (1990). A life-span, life space approach to career development. In D. Brown & L. Brooks, Associates (Eds.), *Career choice and development: Applying contemporary theories to practice* (2nd ed., pp. 197–261). Jossey-Bass.
- Swanson, J. L., & Fouad, N. A. (1999). Applying theories of person-environment fit to the transition from school to work. *Career Development Quarterly, 47*, 337–347. <https://doi.org/10.1002/j.2161-0045.1999.tb00742.x>
- Taggar, S., & Kuron, L. K. J. (2016). The toll of perceived injustice on job search self-efficacy and behaviour. *Career Development International, 21*, 279–298. <https://doi.org/10.1108/CDI-10-2015-0139>
- Tolentino, L. R., Garcia, P. R. J. M., Lu, V. N., Restubog, S. L. D., Bordia, P., & Plewa, C. (2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and career optimism. *Journal of Vocational Behavior, 84*, 39–48. <https://doi.org/10.1016/j.jvb.2013.11.004>
- van Hooft, E. A. J., Born, M. P., Taris, T. W., & van der Flier, H. (2004). Job search and the theory of planned behavior: Minority-majority group differences in the Netherlands. *Journal of Vocational Behavior, 65*, 366–390. <https://doi.org/10.1016/j.jvb.2003.09.001>
- van Hooft, E. A. J., Born, M. P., Taris, T. W., & van der Flier, H. (2005). Predictors and outcomes of job search behavior: The moderating effects of gender and family situation. *Journal of Vocational Behavior, 67*, 133–152. <https://doi.org/10.1016/j.jvb.2004.11.005>
- Virga, D., & Rusu, A. (2018). Core self-evaluations, job search behaviour and health complaints: The mediating role of job search self-efficacy. *Career Development International, 23*, 261–273. <https://doi.org/10.1108/CDI-11-2017-0208>

- Wanberg, C. R., Zhu, J., Kanfer, R., & Zhang, Z. (2012). After the pink slip: Applying dynamic motivation frameworks to the job search experience. *Academy of Management Journal*, *55*, 261–284. <https://www.jstor.org/stable/23412439>
- Wanberg, C. R., Zhu, J., & van Hooft, E. A. (2010). The job-search grind: Perceived progress, self-reactions, and self-regulation of search effort. *Academy of Management Journal*, *53*, 788–807. <https://www.jstor.org/stable/20788792>
- Wang, L., Xu, H., Zhang, X., & Fang, P. (2017). The relationship between emotion regulation strategies and job search behavior among fourth-year university students. *Journal of Adolescence*, *59*, 139–147. <https://doi.org/10.1016/j.adolescence.2017.06.004>
- Wang, L., & Yan, F. (2018). Emotion regulation strategy mediates the relationship between goal orientation and job search behavior among university seniors. *Journal of Vocational Behavior*, *108*, 1–12. <https://doi.org/10.1016/j.jvb.2018.05.011>
- Zacher, H. (2013). Older job seekers' job search intensity: The interplay of proactive personality, age, and occupational future time perspective. *Ageing and Society*, *33*, 1139–1166. <https://doi.org/10.1017/S0144686X12000451>
- Zacher, H., & Bock, A. (2014). Mature age job seekers: The role of proactivity. *Journal of Managerial Psychology*, *29*, 1082–1097. <https://doi.org/10.1108/JMP-05-2012-0158>
- Zimmerman, R. D., Boswell, W., Shipp, A., Dunford, B., & Boudreau, J. (2012). Explaining the pathways between approach-avoidance personality traits and employees' job search behavior. *Journal of Management*, *38*, 1450–1475. <https://doi.org/10.1177/0149206310396376>

Author Biographies

Dian Ratna Sawitri is currently an associate professor at the Faculty of Psychology, Diponegoro University, Indonesia. She received her PhD in 2013 from Griffith University, Australia. She also holds a master of science in psychology. Her research interests include career psychology, organizational behavior, educational psychology, and cross-cultural psychology. In her free time, she enjoys singing, music, and watching movies.

Peter A. Creed received his PhD in 1996 from the Queensland University of Technology. He also holds a master of applied psychology in organizational psychology. He has been a faculty member at the School of Applied Psychology, Griffith University, since 1997. His research interests span the related fields of occupational and career psychology, especially in relation to goal setting and goal regulation. His hobbies include reading, music, and surfing.