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Validation of a Translation of the Student Career Construction Inventory in French University

Students

ACCEPTED VERSION

Abstract

Students' career construction and career choice are characterized by a series of transitions requiring adaptations to new vocational contexts. The Student Career Construction Inventory has been developed against this background (Savickas et al., 2018). This research aimed to validate a French version of the Student Career Construction Inventory (SCCI) and study its relationships to career adaptability and vocational identity. A total of 881 French university students responded to the SCCI-Fr, the Career Adapt-Abilities Scale (CAAS), and the Vocational Identity Status Assessment (VISA). Our results led us to retain a 13-item version of the SCCI-Fr for first-year students and a 14-item version for final-year students. Overall, the SCCI-Fr provides a validated tool for students, scholars, and practitioners.

Keywords: Student Career Construction Inventory, Career Adaptability, Vocational Identity Status Assessment, Exploratory Factor Analysis, Confirmatory Factor Analysis.

Introduction

According to the French Ministry of National Education and Youth, for the academic year 2019–2020, slightly more than 30% of business students enrolled in French universities decided to change their major or did not register the following year (Ministry of National Education and Youth, 2021). It is difficult for adolescents and students to envision a clear and well-defined career path (Landrier and Nakhili, 2010). The Fourth Industrial Revolution imposes disruptive and continual alterations on the economic, social, and technological environments that have impacted societies (Schwab, 2017) and specifically employment perspectives (Hirschi, 2018). Consequently, organizations are no longer guarantors of individuals' career development. Rather, individuals themselves are (Pope, 2015).

The Career Construction Model

To help individuals successfully embrace these constant changes and create better career outcomes, scholars have developed several frameworks such as social cognitive theory (e.g., Lent and Brown, 2013), the relational theory of working (e.g., Blustein, 2006), and the boundaryless and protean career model (Hall, 1976, 2004; Arthur, 2014). Concomitantly, another model has emerged and recently been operationalized (Savickas et al., 2018): the career construction model of adaptation (Savickas, 2005 Savickas and Porfeli, 2012). The career construction model (CCM) is dynamic, as it envisions that relevant career outcomes are fostered by appropriate career behavior made easier by psychological abilities and personal traits (Rudolph et al., 2019). The CCM dynamically analyzes career challenges that individuals may face during school, work, unemployment, or retirement situations (Ricks and Warren, 2021). This model proposed to analyze how people construct careers throughout their lives through the dimensions of adaptivity, adaptability, adapting, and adaptation, "four

dimensions of the career construction model that form an optimal sequence for making occupational and bridging transitions” (Savickas, 2018, p. 139).

Under the scope of the CCM, **the adaptive dimension** is considered a personality trait and refers to an individual’s proclivity to positively undertake career-related tasks. This dimension is bonded to proactive personalities, individuals with a high level of conscientiousness and openness to experience (Tokar et al., 2020). The adaptive dimension summons individuals’ self-regulatory resources to handle these career-related tasks (Savickas et Porfeli, 2012).

The adaptability dimension refers to the ease with which someone positively embraces career-related challenges such as a career change. This dimension reflects an individual’s self-regulatory competency, or the ability to withstand ongoing or future professional changes (Savickas, 1997).

The adapting dimension refers to behavioral changes arising from career changes (Savickas et al., 2018). The career construction inventory uniquely analyzes this adapting dimension through the behavioral sequence of exploring, planning, deciding, and committing to one’s career (Savickas et al., 2018).

The adaptation dimension is the immediate outcome of the adaptivity, adaptability, and adapting dimensions, namely the fit between the environment and the individual, evaluated through success, satisfaction, and stability (Savickas et al., 2018).

These four dimensions together provide an ideal framework for individuals seeking a new career path, aiming to bridge transitions within education, or hoping to ensure a successful transition from school to work (Savickas et al., 2018).

“To adapt”: A Paramount Career Construction Facet

In contemporary society, the concept of career occupies a central place in people's pathways to work and professional success. Super (1957) considered the concept of career as a series of multiple stages. In addition, human resources practitioners perceive a career as a series of developmental activities in the workplace (Baron & Greenberg, 1990). Career management comprises three career facets: planning, pathing, and development (Milkovich & Glueck, 1985).

Since the early 2000s, the socioeconomic environment of work has undergone significant structural changes; adaptation within career construction has become crucial. In this context, scholars have developed a complementary approach, which has become inextricable from career construction: career adaptability.

Career adaptability is a capacity to initiate a transition: "the capability of an individual for making a series of successful transitions where the labor market, organization of work, and underlying occupational and organizational knowledge bases may be subject to considerable change" (Bimrose et al., 2011, p. 18). Apart from this result-oriented definition of career adaptability, other researchers have defined it as a psychological conception: "a psychosocial construct that denotes an individual's resources for coping with current and anticipated tasks, transitions, traumas in their occupational roles" (Savickas & Porfeli, 2012, p. 662). Savickas (1997) introduced career adaptability as an alternative to vocational (or career) maturity (Super & Overstreet, 1960). This paradigm shift goes hand in hand with careers that have become more multifaceted and insecure (Hall, 1996a).

With the consistent development of a contemporary socioeconomic model, the concept of career adaptability has become a precondition of career construction for current and future workers (Briscoe et al., 2006). Savickas (2012) considers adaptability a key concept in career construction that delimits the capacity to align individual and environmental changes

adaptively. We previously indicated that the Fourth Industrial Revolution has established new rules for **employment** (Hirschi, 2018) and, generally speaking, for the economic and social environment (Schwab, 2017). Therefore, the adapting response motivated Savickas et al. (2018) to develop the Student Career Construction Inventory.

Development of the SCCI

Preparing or developing careers through career tasks (e.g., self-evaluation and orientation) is crucial (Jiang, 2015). These career tasks are critical for students to achieve a successful transition from school to school and school to work and, analogously, for people starting or in the middle of career construction to achieve career success (Maree, 2016). Scholars have identified these career tasks as part of the Career Construction Model, which is effective for evaluating vocational thoughts and behaviors (Savickas et al., 2009). The Career Construction Model is dynamic, as it includes an adapting dimension, but scholars have only recently developed a scale that includes assessment of the adapting dimension (Savickas et al., 2018). Savickas et al. (2018) developed the Student Career Construction Inventory (SCCI) to observe adaptations toward career construction.

One way to evaluate career construction among students is to identify career preparation gaps and compare aspirations between first-year students and students who are about to finish their studies. These two groups have different approaches to their career construction; first-year students experience uncertainty about what they would consider a career path, especially in France, while more senior students are more mature in their career decision-making (Blustein, 1997; Flum & Blustein, 2000). In other words, career construction is driven by life stages and major transitions (Gross-Spector & Cinamon, 2018) that are themselves characterized by great momentum for exploration of new career avenues (Rowold & Staufienbiel, 2010).

The exploration concept in one's career offers a useful background for the current study. This concept refers to the "purposive behavior and cognitions that afford access to information about conception, jobs, organizations" (Stumpf et al., 1983, p. 192). Scholars have demonstrated that demographic disparities influence career exploration profundity, in that young adults engage more in exploring activities than their younger counterparts (Rowold & Staufenbiel, 2010).

Students around the world are facing uncertainties that have translated into general dissatisfaction toward their academic journeys (Hou et al., 2012) and their careers (Nevill & Rhodes, 2004). If this is the case for the Asian continent (Hou et al., 2012) and the American continent (Nevill & Rhodes, 2004), it is also likely to be the case for the European continent (Nevill & Rhodes, 2004) and for France specifically (Vignoli, 2015). This similarity across continents also extends to the career construction of French professionals. It can, for example, be seen in *Les bilans de competences*, a governmental policy aimed at providing support to employees. This document counsels workers on a series of personal and professional skills to promote career exploration (Bonaïti & Gélot, 2005). Therefore, we contend that students' uncertainty toward their career construction journey is not a function of cultural differences.

The SCCI was developed (Savickas et al., 2018) to provide a measurement tool that covers the adaptation model in its entirety, as "none of the measures (neighbouring measures) are specifically relevant to fully testing the adapting responses dimension of the adaption model" (Savickas et al., 2018, p. 139) or are comprehensive enough to test the career adaptation model. A summary of scales measuring the adaptive response in a generic or more particular way is available in Rudolph et al.'s (2017) meta-analysis. An example of a generic measure is the career engagement scale (Hirschi et al., 2014), and two more particular measures are the career exploration survey (Stumpf, Colarelli, & Hartman, 1983) and the career strategies inventory (Penley & Gould, 1981).

The French Context

While the transition between high school and university must be considered a major transition (Gross-Spector & Cinamon, 2018), the French educational system seems to prevent any reassessment or reconsideration of students' aspirations during major transitions (Lemaire et Leseur, 2005). The system in France contributes greatly to students' dissatisfaction and fosters career path issues (Landrier and Nakhili, 2010). French students are left to their own devices, and the absence of guidance or orientation structures at the university level are significant barriers to their adaptation to potentially disruptive changes (Forner, 2021). There are several reasons for this; the politics of mass education in the early 2000s pushed for more students at university but skimmed on quality (Millet, 2012 citing Lelièvre, 2012). Selection for entry into university studies became more lenient, thus increasing the number of students and decreasing vigilance toward teaching quality (Millet, 2012). Since then, seeing students changing their majors, abandoning their studies, seeking to enter the labor market earlier than expected, or taking exams to access jobs that are not related to their fields of study are considered daily realities (Millet, 2012; Zaffran & Aigle, 2021). New regulations adopted in 2018 did not structurally modify the current French educational system but allowed more selectivity in university admissions (Beaud & Millet, 2018).

In terms of the transition from university to work, research findings are more optimistic about a fit between students and their new working environments. Regardless of their degree, a large majority of university students (more than 88%) find a first job within 30 months or less, and 79% of them confirm the relevance of their field of study to their first job (SIES, 2021). Nonetheless, work-study master's programs (i.e., sandwich master's degrees) considerably reduce student dissatisfaction with the university-to-work transition (SIES, 2021; Beaupère, Collet and Issehnane, 2017).

In this respect, offering a translated version of the SCCI might particularly benefit students in their first year at university, but also students in general, by helping to sharpen their adaptation and assess their readiness for new vocational contexts.

The Present Study

This study evaluated the psychometric properties of a French translation of the Student Career Construction Inventory (SCCI) in a sample of 881 university students. The Exploratory Factor Analysis-to-Confirmatory Factor Analysis (EFA-to-CFA) methodology was used to conduct this study. There were several reasons for this research. Evaluating the psychometric properties of a translated scale is a prerequisite for producing a reliable and valid scale. In addition, the comprehensive range of career constructs developed by Savickas et al. (2018) can help students make career decisions and ease their career adjustment (Lent, 2013; Savickas, 1997). Furthermore, as the SCCI is a newly developed scale, further validation in a different cultural context would confirm its utility among a wider range of students. Since its operationalization, the Student Career Construction Inventory (Savickas et al., 2018) has been translated into Turkish (Öztemel and Yildiz-Akyol, 2020) and Portuguese (Soares, Taveira, Cardoso & Silva, 2022) and validated in samples of 945 students and 314 college students, respectively. In the Turkish study, the authors indicated that their data were a very good fit to Savickas et al.'s (2018) model, and similar results were found in the Portuguese study.

To the best of our knowledge, none of the other scales mentioned above provides "a comprehensive and specific measure of student responses to the primary career construction tasks encountered by adolescents and emerging adults" (Savickas et al., 2018, p. 139). We therefore believe that the SCCI reflects the current understanding of the adapting construct. We also determined that career construction seems to be different depending on the individual's proximity to the labor market (Mariciniak et al., 2020).

Methods

Participants and Procedures

To map and confirm the factor structure of the SCCI-Fr, we used a heterogeneous sample of university students. During data collection, students were actively studying, and we recruited them by sending a personal message through their institutional emails. The sample was composed of 642 women and 238 men in the first year of a bachelor's degree ($N = 428$) and the final year of a master's degree ($N = 452$) from various fields of business and management (e.g., finance, accounting, human resources, marketing, strategy, general management). The participants ranged in age from 18 to 48 ($M = 21.18$, $SD = 2.80$). The questionnaire package included the translated SCCI (back-translation methodology from Brislin, 1970), the French version of the Career Adapt-Abilities Scale (Pouyaud et al., 2012), and the French version of the Vocational Identity Status Assessment (Lannegrand-Willems & Perchee, 2017).

We advertised on campus and invited respondents who matched the inclusion criteria (residing in France and fluent in French; foreign students were not considered for this study) to participate in a study on student careers. Those who agreed to participate had to provide written informed consent and complete an anonymous online version of the questionnaire. The order of presentation of the scales mentioned above was pre-randomized for each participant. Participation was voluntary, and respondents did not receive any remuneration for participation. Upon returning the completed questionnaires, participants were provided with a written debriefing.

Measures

In addition to the SCCI, we selected the Career Adapt-Abilities Scale-Fr (CAAS-Fr) and the Vocational Identity Status Assessment-Fr (VISA-Fr) due to their alignment with the adapting responses dimension of the SCCI.

Student Career Construction Inventory Scale-France

The participants completed the 18-item SCCI (Savickas et al., 2018; see Appendix for items in English and French). All items were rated on a 5-point scale ranging from 1 (“I have not yet thought much about it”) to 5 (“I have already done this”). In the present study, Cronbach's α for first-year students was .74 (Crystallizing), .82 (Exploring), .85 (Deciding), .75 (Preparing), and .89 (total SCCI-Fr score). Cronbach's α for final-year students was .69 (Crystallizing), .87 (Exploring), .87 (Deciding), .74 (Preparing), and .90 (total SCCI-Fr score). Similar results were found in the Turkish (Öztemel and Yildiz-Akyol, 2020) and Portuguese samples (Soares, Taveira, Cardoso & Silva, 2022).

Career Adapt-Abilities Scale-France

To measure career adaptability and abilities, we used Savickas and Porfeld's (2012) Career Adapt-Abilities Scale (CAAS; French translation by Pouyaud et al., 2012; see Appendix for the full scale), a 24-item measure of an individual's adaptability resources. All items were rated on a 5-point scale ranging from 1 (not strong) to 5 (very strong). In the present study, Cronbach's α for first-year students was .83 (Concern), .75 (Control), .77 (Curiosity), .84 (Confidence), and .91 (total CAAS-Fr score). Cronbach's α for final-year students was .84 (Concern), .76 (Control), .80 (Curiosity), .83 (Confidence), and .90 (total CAAS-Fr score). Cronbach's alphas obtained to assess reliability of the CAAS's subscales were very close to those obtained by Pouyaud et al. (2012, p. 693).

Internal consistency was assessed by comparing inter-item correlation with the original pilot study (Pouyaud et al., 2012). Both first-year students (Table 3) and final-year students (Table 4) showed similar interrelatedness patterns with Pouyaud et al. (2012, p. 695).

Vocational Identity Status Assessment-France

Vocational identity was measured using the 30-item Vocational Identity Status Assessment (VISA; Porfeld et al., 2011), which evaluates an individual's vocational processes.

Overall, VISA aims to illustrate progress toward individuals' identity construction. In the French version, all items are rated on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree), and scores for the French version have good construct validity (Lannegrand-Willems & Perchee, 2017; see Appendix for the full scale). In the present study, Cronbach's α for first-year students was .80 (Commitment), .65 (Identification to Commitment), .82 (Flexibility), .80 (Reconsideration), .81 (In-Breadth Exploration), .75 (In-Depth Exploration), and .67 (total VISA-Fr score). Cronbach's α for final-year students was .81 (Commitment), .68 (Identification to Commitment), .82 (Flexibility), .83 (Reconsideration), .84 (In-Breadth Exploration), .75 (In-Depth Exploration), and .63 (total VISA-Fr score). Cronbach's alphas obtained to assess the reliability of the VISA's subscales were very close to those obtained by Lannegrand-Willems and Perchee (2017, p. 5) and by Porfelli et al. (2011, p. 862).

Internal consistency was assessed by comparing inter-item correlation with previous studies (Lannegrand-Willems & Perchee, 2017; Porfelli et al., 2011). Both first-year students (Table 3) and final-year students (Table 4) showed similar interrelatedness patterns with Lannegrand-Willems & Perchee (2017, p. 6) and with Porfelli et al. (2011, p. 862).

Statistical Analyses

A valid scale is defined by its capacity to reveal more information about a phenomenon (Hair et al., 2013). Generally, analyzing scale validity determines whether the items are a good representation of the phenomenon studied. To ensure that the SCCI-Fr would provide a reliable and valid measure, we randomly split the sample. The first half was used to analyze the factorial structure, while the second half was used to confirm it. For each half, first-year and final-year students were studied separately to test the study hypotheses. The methodology used during EFA was principal component analysis (PCA), which is intended to synthesize data while creating a new, smaller set of data, the principal component (Carricano et al., 2012). Although the main objective was to find similarities among the dimensions and

not to consider data only as simple statistical artifacts, it was necessary to question the accuracy of the data. From the first extracted matrix, we obtained enough correlations to apply to our study. The Kaiser-Meyer-Olkin (KMO) indices were used to evaluate the weakness of the partial correlations (Hair et al., 2013). The next step entailed checking the extraction of factors. The objective was to ensure that a factor explained a significant amount of variance. It is often advised to stop extraction when 60% of the explained variance is extracted (Hair et al., 2013).

We used the principal-axis exploratory factor using Promax rotation to examine the factor structure of the French version of the SCCI. Factor eigenvalues above 1.0 (EGV1 procedure) determined retention in the EFA. In addition, we retained only loadings with a value greater than .5 (Hulland, 1999).

Finally, we computed the bivariate correlation coefficients between SCCI-Fr scores and concurrent scales. The statistical analyses were performed using SPSS (25th version).

Results

Preliminary Analyses

There were no missing data. The skewness and kurtosis values were below the critical limits (i.e., skewness < 3, kurtosis < 10) for all the total scales and the SCCI-Fr items (Kline, 2005); thus, no scale or item was transformed.

Between-group Analyses

The main objective of between-group analyses was to identify differences in career progress among university students. We believe final-year students would have a higher level of career progressing statements on each dimension of the career inventory. We checked for the basic requirements of parametric analysis (Tabachnick & Fidell, 2013) before exploring the results of the overall analysis of variance in the SCCI. Then, a MANCOVA was conducted among first-year and final-year university students as the

independent variable. The Omnibus MANCOVA results for Crystallizing, Exploring, Deciding, and Preparing were significant: $F(4, 875) = 45.316, p < .001, \eta^2 = .15$. As reported in Table 1, the data from final-year students were at a significantly higher level on each subscale of the SCCI than the data from freshman students.

Insert table 1 about here

Table 1 appears to show that the Preparing scale had the largest variances between first-year and final-year students. This result is not surprising, as final-year students were only a month away from entering the labor market; thus, they would be expected to be more prepared than first-year students.

Exploratory Factor Analysis

First-year Students

For first-year students ($n = 216$), the Kaiser-Meyer-Olkin (KMO) index was .868, and Bartlett's test value was significant at 1539.119 ($p < .001$). Four factors had an eigenvalue greater than 1. Factors loading below .50 were not retained, and this applied to items 3, 4, 5, and 6. Additionally, we found item 5 loading on another factor. Table 2 details the factorial structure of the SCCI-Fr among first-year students. Table 2 also provides the previous factorial structure obtained in Savickas et al. (2018).

Insert table 2 about here

Final-year Students (n = 221)

For final-year students ($n = 221$), the Kaiser-Meyer-Olkin (KMO) index was .900, and Bartlett's test value was significant at 1814.651 ($p < .001$). Four factors had eigenvalues greater than 1. Factors loading below .50 were not retained, and this applied to items 3, 5, 6, and 18. Additionally, we found item 6 loading on another factor. Table 2 details the factorial structure of the SCCI-Fr among final-year students.

The Specific Case of the Crystallizing Scale

In comparison to previous studies, the career construction task of Crystallizing appeared to be specific among French university students. The crystallization scale included items such as “Determining what values are important to me” (#3), “Knowing how other people view me” (#4), “Identifying people that I want to be like” (#5), and “Finding out what my interests are” (#6). Item 1 concerned the identification of one’s personality and item 2 the identification of one’s talents and abilities.

The literature review concluded that the French educational system and specifically universities are suffering from being a destination by default for a significant number of students who are left to their own devices without support toward better career orientation (Forner, 2013). It appears that students have very limited knowledge about what defines them and what drives them in life (Leeson et al., 2008). That is why items 1 and 2 remained consistent and were loaded as such among first-year and final-year students.

We identified a four-dimension scale for both first-year and final-year students. Nonetheless, two different SCCI-Fr four-factor models were proposed for first-year and final-year students

Confirmatory Factor Analysis ($n = 440$)

According to Hair et al. (2013), “confirmatory factor analysis is a way of testing how well measured variables represent a smaller number of constructs” (Hair et al., 2013, p. 602). During CFA, specific measures should be calculated to determine the goodness of fit. In our study, CFA was conducted using the Analysis of Moment Structures Program (AMOS v.25; Arbuckle, 2017) to examine the fit of a four-factor model in first-year and final-year students, separately. Hu and Bentler (1999, p. 27) provided the thresholds for CFA, and those thresholds appeared to be consistent with Hair et al. (2013). Standard goodness-of-fit indices were selected *a priori* to assess the measurement models. The normed model chi-

square (X^2) is reported with lower values of the overall model chi-square, indicating goodness-of-fit. An X^2 value of <3.00 indicates a good fit (Hu & Bentler, 1999).

CFA was conducted on the 14 items of the SCCI-Fr for the first-year students and the 15 items of the SCCI-Fr for the final-year students. According to Hair et al (2013), standardized loading estimates should be .5 or higher and ideally .7 or higher.

First-year Students (n = 208)

The standardized estimates of factor loadings for the best-fitting model were all good to excellent (see Figure 1). This four-dimensional structure provided a good fit to the data: $X^2 (56, N = 208) = 99.966, = 1.785, CFI = .964, RMSEA = .062$ (low = .041, high = $M X^2 \text{ normed } .081$), $PCLOSE = .159, SRMR = .052$.

Insert figure 1 about here

Final-year Students (n = 230)

The standardized estimates of factor loadings for the best-fitting model were all good to excellent (see Figure 2). This four-dimensional structure provided a good fit to the data: $X^2 (66, N = 230) = 130.821, = 1.982, CFI = .962, RMSEA = .065$ (low = .049, high = $M X^2 \text{ normed } .082$), $PCLOSE = .062, SRMR = .041$.

Insert figure 2 about here

SCCI Internal Consistency and Scale Intercorrelation

The internal consistency of the SCCI-Fr was .89 for the first-year students and .90 for the final-year students. The detailed data for internal consistency can be found in Table 2. In terms of intercorrelation, the correlations of the four scales with the total SCCI-Fr scale ranged from .67 to .90. The results indicate that each scale of the SCCI-Fr fulfils the content outline.

Finally, results from the intercorrelation analyses between each scale and the total SCCI-Fr were all strong. Correlations between the four scales of the SCCI-Fr ranged from .30

to .75. The highest correlation was identified between Deciding and Preparing (.75), as established by Savickas et al. (2018). The scale intercorrelations were moderate to strong except for the relationship between Crystallizing and Exploring (.30).

The Relationship between the SCCI-Fr and the CAAS-Fr

Deriving the relationship between the SCCI-Fr and the CAAS-Fr is fundamental to emphasizing the presence of a career construction model of adaptation. Tables 3 and 4 show the patterns in the total scores as well as the correlation between the SCCI-Fr and the CAAS-Fr among first-year (.54) and final-year (.57) students. Similarly to what Savickas et al. (2018) reported, Deciding is the scale most correlated with the total score of the CAAS-Fr among both first-year (.46) and final-year (.49) students. The Exploring scales of the SCCI-Fr had the lowest correlations with the total score of CAAS-Fr, .35 for first-year students and .39 for final-year students.

Insert tables 3 and 4 about here

Correlations between CAAS-Fr and SCCI-Fr subscales differed slightly between the two groups. However, among first-year students, the lowest correlation (.20) was between SCCI-Fr Exploring and CAAS-Fr Confidence, whereas among final-year students, the lowest correlation (.22) was between SCCI-Fr Exploring and CAAS-Fr Curiosity, as well as CAAS-Fr Control. We found the strongest correlation (.61 and .63 for first-year and final-year students, respectively) between SCCI-Fr Deciding and CAAS-Fr Concern. Savickas et al. (2018) reached the same conclusions.

Overall, final-year students have more adaptability resources than first-year students. The latter are competent in adapting responses, but at a lower level than that of their final-year counterparts. Table 3 for first-year students and Table 4 for final-year students show the patterns of correlation between the SCCI-Fr and CAAS-Fr scales.

The Relationship between the SCCI-Fr and the VISA-Fr

The correlation matrix between the SCCI-Fr scales and the VISA-Fr subscales, and likewise for their total scores, is presented in Tables 3 and 4. As stated by Savickas et al. (2018), the Adapting responses on the SCCI-Fr matched the In-Depth Exploration subscale of the VISA Exploration dimension. The total SCCI-Fr score was very weakly correlated to In-Breadth Exploration (.19) and moderately correlated to In-Depth Exploration (.49) among the first-year students. Among the final-year students, there was no correlation between the total SCCI-Fr score and In-Breadth Exploration (.02) and a strong correlation between the total SCCI-Fr score and In-Depth Exploration (.51). The SCCI-Fr scales were weakly to moderately correlated with the VISA In-Depth Exploration in both groups of students. The correlation between Exploring and In-Breadth Exploration was very weak (.19) in first-year students, but not in final-year students (.05).

The Commitment subscale of the VISA-Fr was correlated with the total score of the SCCI-Fr, both in first-year students (.58) and final year-students (.60). These correlations are higher than the correlations between Identification to Commitment and the total score of the SCCI-Fr, which were .44 in first-year students and .45 in final-year students. The highest correlation was identified between SCCI-Fr Deciding and VISA-Fr Commitment in both groups. Savickas et al. (2018) identified the same pattern.

Finally, the VISA-Fr Flexibility dimension was moderately and negatively correlated with the SCCI-Fr total (-.34 and -.35 in first-year and final-year students, respectively). Similarly, the VISA-Fr Reconsideration dimension was strongly and negatively correlated with the total score of the SCCI-Fr (-.50 and -.49 for first-year and final-year students, respectively). These results indicate that a lack of adaptive readiness has a negative relationship to adapting responses. Flexibility and Reconsideration may impede university students in their career construction tasks. Our results again matched those obtained by Savickas et al. (2018) with a high school student sample.

Discussion

Main Findings and Contributions

Our study confirms the psychometric properties of the SCCI among first-year and final-year French university students registered in management studies. The outcome of the present study was threefold. First, we found that final-year students achieved significantly higher scores in career construction stages (i.e., on the four dimensions). Second, we confirmed the four-factor model from the original SCCI scale (Savickas et al., 2018). Finally, the confirmatory factor analysis showed slightly different patterns between first-year and final-year university students. Final-year students scored significantly higher than first-year students on the SCCI-Fr on almost every single item. This confirmed what we had established in the literature review; senior students had had time to explore and reflect more on their career orientation between the time they entered university and their final year. This is in line with previous findings on career exploration (Rowold & Staufienbiel, 2010).

The translation and validation procedures confirmed the theoretical perspective of the SCCI by offering a four-factor model. We confirmed the initial model developed by Savickas et al. (2018) and more recent validation of the SCCI in Turkey (Öztemel and Yildiz-Akyol, 2020) and Portugal (Soares, Taveira, Cardoso & Silva, 2022). Nevertheless, using EFA, we were able to determine that the Crystallizing dimension does not perform as expected. Indeed, EFA for the first-year students showed a different pattern than EFA for the final-year students, with two items and three items, respectively, comprising the Crystallizing scale for the two groups of students. The first-year student version of the SCCI-Fr (14 items) as well the final-year student version of the SCCI-Fr (15 items) fit the data well through the CFA on the second data split. These results are also explained in the literature, first taking into account the French educational system and specifically the characteristics of new entrants

at university (Lemaire et Leseur, 2005) and then the fact that demographic variables (i.e., age) noticeably influenced exploration activities (Rowold & Staufenbiel, 2010).

Implications

Similar to what was established in France in 1986 (i.e., “*bilan de compétences*”) to counsel workers in identifying their personal and professional skills (Bonaïti & Gélot, 2005), the validation of SCCI-Fr helps students to better understand their career progress and allows them to utilize a harmonized counseling tool to set career goals. This study aimed to provide a validated tool of career construction through the psychometric evaluation of the SCCI-Fr. The SCCI-Fr scale may be a useful addition to the conceptual approach to competence that has dominated the French professional landscape since the early 1980s (Le Deist, 2017).

As stated in the literature, France suffers from political decisions that offered more quantitative outcomes but not qualitative refinement. Indeed, while the number of students has largely increased since 2000s, the quality of education has not improved (Lemaire et Leseur, 2005).

University students who are in the midst of their academic development can use the SCCI-Fr to assess their priorities according to a competence development agenda. The French logic of competence imposes on students the need to hold competencies in line with organizational needs; it would be unthinkable to consider a student’s career construction without the context of work. Consequently, university students who are nearing the end of their academic path could use the SCCI-Fr as a major informative tool for individuals’ career construction. Indeed, the literature shows that nothing of that nature has been done. Structures aimed at guiding and supporting students through their academic journey are almost absent, and instead, the system contributes to greater dissatisfaction among students (Landrier and Nakhili, 2010).

The SCCI would facilitate personalized career intervention programs. Seminars or workshops on how to improve employability knowledge would help to shape the adaptive response as students would have a better idea of what they need to know and what is expected from them (Crowne et al., 2020). This approach should integrate the career maturity process of first-year students and sophomores. Indeed, as stated in the literature, new students beginning their first year at university would not have a firm idea of what their careers will be. However, we established that final-year students should have a clearer idea of their post-graduation career paths (Nevill and Super, 1988).

The translation of the SCCI into French offers students the opportunity to assess their career preparedness through the adaptive response, as stated in the literature (Mariciniak et al. 2021). Although the two scales had minor differences from the original scale, the adaptive responses suggested its usefulness among French students. The adaptive response in the SCCI-Fr is a vital component to tackle the uncertainty of students' career paths, which is in line with prior findings on career maturity (Nevill and Super, 1988; Mariciniak et al. 2021) and career readiness (Phillips & Blustein, 1994).

Perspectives for Future Research

The present study's limitations can help to inform future research. Although we provided evidence of the French SCCI's validity, the scale purification during the EFA prompted us to encourage replication in degree programs other than business and management or in other types of institutions besides French business schools. The sample was also relatively large, and the data were collected on first-year students versus senior students, but assessing the validity and reliability of the SCCI through longitudinal records would strengthen confirmation of the factorial structure within the French context.

Another perspective in addressing the SCCI is the establishment of its links with personality measures, individual differences, or values (Maloni, Hiatt, and Campbell,

2019). It would be interesting to expand on this, since individuals differ “in the extent to which they are willing and able to develop beliefs and show behaviors that address changing environmental conditions and, thus, lead to a positive integration and fit with their work role” (Rudolph et al., 2017).

Finally, we did not test the SCCI in real situations that would help students identify their current stage of adaptation toward new contexts. It would be interesting to test the scale with the help of high school and university counselors and verify the capacity of the scale to offer the expected outcomes in terms of adaptation.

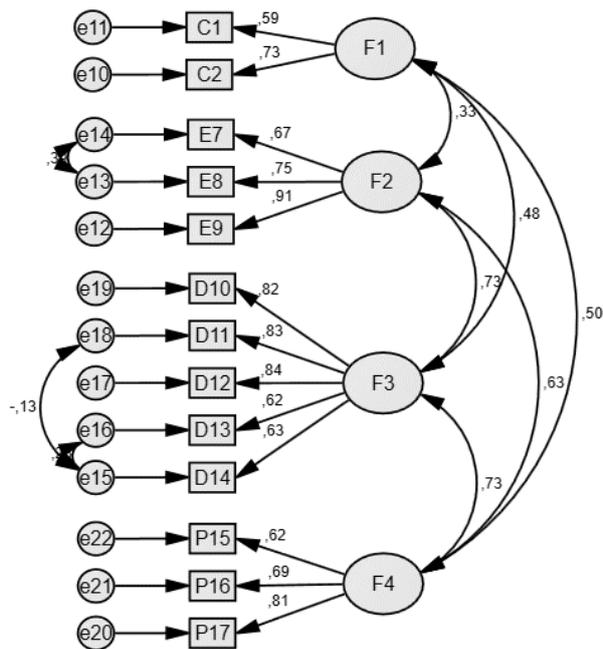
ACCEPTED VERSION

APPENDIX. French versions of the Student Career Construction Inventory-France (SCCI-Fr), the Career Adapt-Abilities scale-France (CAAS-Fr) and the Vocational Identity Status Assessment-France (VISA-Fr).

Student career construction inventory-France (following the Back-Translation methodology - Brislin, 1970)	
Factors	Items
Crystallizing	<p>1. Avoir une idée précise de ma personnalité. <i>Forming a clear picture of my personality.</i></p> <p>2. Reconnaître mes talents et aptitudes. <i>Recognizing my talents and abilities.</i></p> <p>3. Déterminer les valeurs qui m'importent. <i>Determining what values are important to me.</i></p> <p>4. Savoir comment les autres me perçoivent. <i>Knowing how other people view me.</i></p> <p>5. Identifier la personne à laquelle je voudrais ressembler. <i>Identifying people that I want to be like.</i></p> <p>6. Découvrir mes centres d'intérêt. <i>Finding out what my interest are.</i></p>
Exploring	<p>7. Connaître les différents types d'emplois. <i>Learning about different types of jobs.</i></p> <p>8. S'informer sur les métiers existants. <i>Reading about occupations.</i></p> <p>9. Rechercher les métiers qui correspondent à mon profil. <i>Investigating occupations that might suit me.</i></p>
Deciding	<p>10. Décider de ce que je vais faire pour gagner ma vie. <i>Deciding what I really want to do for a living.</i></p> <p>11. Trouver un secteur d'activité qui me conviendrait. <i>Finding a line of work that suits me.</i></p> <p>12. Choisir une profession qui me satisferait. <i>Selecting an occupation that will satisfy me.</i></p> <p>13. Organiser mon entrée dans la profession que j'ai choisi(e). <i>Planning how to get into the occupation I choose.</i></p> <p>14. Me rassurer concernant mon choix de métier. <i>Reassuring myself that I made a good occupational choice.</i></p>
Preparing	<p>15. Trouver des opportunités de formation et d'expérience selon mes besoins. <i>Finding opportunities to get the training and experience I need.</i></p> <p>16. Commencer la formation requise pour le métier choisi. <i>Beginning the training I need for my preferred job.</i></p> <p>17. Acquérir les compétences nécessaires pour exercer le métier que je préfère. <i>Qualifying for the job that I like the best.</i></p> <p>18. Décrocher un emploi dès le terme de mon cursus académique ou mon expérience professionnelle. <i>Getting a job once I complete my education or training.</i></p> <p><i>The response format is on a 5-point scale</i> 1 = Je n'y ai pas encore pensé 2 = J'y ai pensé mais pas encore fait le nécessaire pour y parvenir 3 = Je sais ce que je dois faire pour y parvenir 4 = En cours 5 = Je l'ai déjà fait</p>
Career Adapt-Abilities Scale-France (French version: Pouyaud, Vignoli, Dosnon, & Lallemand, 2012).	
Factors	Items
Concern	<p>1. Réfléchir à ce que sera mon avenir.</p> <p>2. Me rendre compte que mes choix d'aujourd'hui engagent mon avenir.</p> <p>3. Me préparer à mon avenir.</p> <p>4. Devenir conscient des choix de formation et de profession que je dois faire.</p> <p>5. Planifier la façon d'atteindre mes objectifs.</p> <p>6. Me sentir concerné par mon parcours professionnel.</p>
Control	<p>7. Rester optimiste.</p> <p>8. Prendre moi-même mes décisions.</p> <p>9. Prendre la responsabilité de mes actes.</p> <p>10. Défendre mes convictions.</p> <p>11. Compter sur moi-même.</p> <p>12. Faire ce qui est bon pour moi.</p>
Curiosity	<p>13. Explorer mon environnement.</p>

Confidence	<p>14. Chercher les occasions de progresser en tant que personne. 15. Explorer les options avant de faire un choix. 16. Observer différentes manières de faire les choses. 17. Aller au fond des questions que je me pose. 18. Devenir curieux de nouvelles opportunités. 19. Me montrer performant dans ce que j'ai à faire. 20. Prendre soin de bien faire les choses. 21. Acquérir de nouvelles compétences. 22. Développer mes capacités. 23. Surmonter les obstacles. 24. Résoudre des problèmes.</p> <p><i>The response format is on a 5-point scale</i> 1 = Je n'ai pas du tout la capacité de 5 = J'ai une très forte capacité de</p>
Vocational Identity Status Assessment-France (<i>French version</i> : Lannegrand-Willems & Perchec, 2017).	
Factors	Items
Commitment	<p>1. Je sais quel type de métier me conviendrait le mieux. 2. Aucune autre orientation ne m'attire autant que celle que je m'appête à suivre. 3. Personne ne me fera changer d'avis sur le métier ou l'orientation que j'ai choisi(e). 4. Je sais depuis longtemps quel type d'orientation me conviendrait le mieux. 5. J'ai déjà consacré beaucoup d'énergie à préparer ma future orientation.</p>
Identification to commitment	<p>6. Mon futur métier me permettra de satisfaire des objectifs bien personnels. 7. Exercer la profession que j'ai choisie me permettra de devenir la personne que je rêve d'être. 8. Ma famille a confiance dans mes chances de réaliser mon projet professionnel. 9. J'ai choisi un projet professionnel qui correspond à mes valeurs personnelles. 10. Mon projet professionnel me permettra d'avoir le genre de vie de famille que je souhaiterais avoir.</p>
Flexibility	<p>11. Mes centres d'intérêts professionnels changeront probablement dans le futur. 12. Je modifierai probablement mes choix d'orientation. 13. Ce que je recherche dans un métier pourra changer dans le futur. 14. Mon choix d'orientation professionnelle pourra être différent de ce que j'envisage aujourd'hui.</p>
Reconsideration	<p>15. J'ai besoin de m'informer encore avant de pouvoir choisir une voie d'orientation. 16. Penser à un choix d'orientation me rend inquiet. 17. Les gens qui me connaissent bien ont des doutes sur mes choix d'orientation professionnelle. 18. Quand je parle à d'autres personnes de mes projets d'avenir, je sens que je suis un peu hésitant. 19. Je doute de pouvoir trouver un métier qui me convienne. 20. Je ne serai peut-être pas capable d'exercer le métier que je souhaite vraiment.</p> <p><i>Là où j'en suis maintenant...</i> <i>Aujourd'hui...</i></p>
In-breadth exploration	<p>21. Je m'informe de temps à autre sur des métiers que je ne connais pas afin d'en trouver quelques-uns que je vais explorer davantage. 22. Je réfléchis à la façon dont je pourrais réussir dans des métiers différents. 23. J'essaie d'avoir beaucoup d'expériences différentes pour trouver quelles professions pourraient me convenir. 24. Je m'informe sur différentes professions qui pourraient me plaire. 25. Je reste ouvert à des informations sur des voies de formation différentes.</p>
In-depth exploration	<p>26. Je réfléchis à mes points forts quand je pense à mon avenir professionnel. 27. Je m'informe sur la manière d'augmenter mes chances d'entrer dans la formation que j'ai choisie. 28. Je me renseigne autant que je peux sur les exigences des voies d'études menant aux métiers qui m'intéressent le plus. 29. J'essaie de rencontrer des gens qui partagent mes centres d'intérêts professionnels. 30. Lorsque je m'informe sur une profession, j'en examine tous les aspects les plus importants pour moi.</p> <p><i>The response format is on a 5-point scale</i> 1 = Totalemment en désaccord 5 = Totalemment en accord</p>

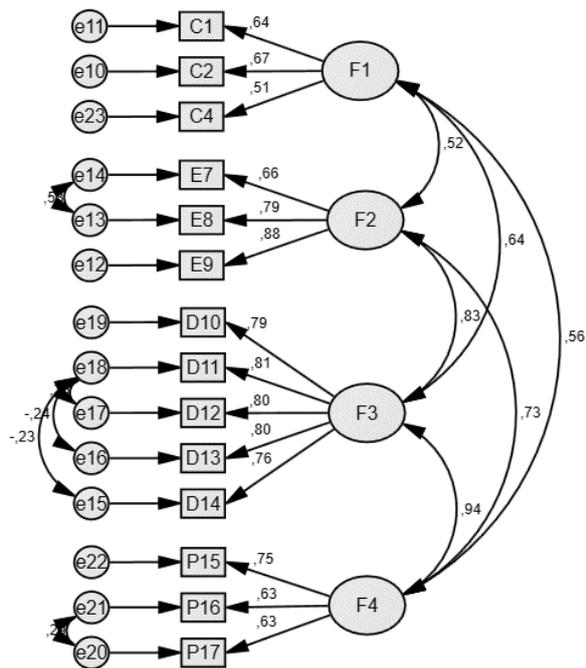
FIGURE 1. Confirmatory factorial analysis among first-year students



Note. F1 = Crystallizing; F2 = Exploring; F3 = Deciding; F4 = Preparing.

Error covariances were freely estimated between item pairs 7 and 8, 11 and 14, and 13 and 14 due to shared method variance.

FIGURE 2. Confirmatory factorial analysis among final-year students



Note. F1 = Crystallizing; F2 = Exploring; F3 = Deciding; F4 = Preparing.

Error covariances were freely estimated between item pairs 7 and 8, 11 and 12, 11 and 14, and 16 and 17 due to shared method variance.

TABLE 1. Descriptive statistics, mean per group, standard deviation per group and tests of between-subjects effects of the SCCI-Fr.

item	First-year students (<i>N</i> = 428)		Final-year students (<i>N</i> = 452)		Between-Subjects Effects		
	M	SD	M	SD	<i>F</i>	<i>p</i>	η^2_p
Crystallizing 1	3.64	1.06	3.96	.90	23.516	<.001	.03
Crystallizing 2	3.30	1.04	3.69	.96	32.995	<.001	.04
Crystallizing 3	4.05	1.01	4.39	.81	29.642	<.001	.03
Crystallizing 4	3.18	1.13	3.31	1.08	2.923	.088	.003
Crystallizing 5	3.14	1.41	3.26	1.46	1.621	.203	.002
Crystallizing 6	3.99	.93	4.28	.84	23.879	<.001	.03
CRYSTALLIZING	3.55	.65	3.81	.62	38.369	<.001	.04
Exploring 7	3.34	1.07	3.77	1.02	37.231	<.001	.04
Exploring 8	3.58	1.05	3.96	.98	30.609	<.001	.03
Exploring 9	3.53	1.14	3.87	1.03	22.404	<.001	.03
EXPLORING	3.48	.94	3.87	.89	39.095	<.001	.04
Deciding 10	3.53	1.19	3.84	1.08	16.092	<.001	.02
Deciding 11	3.89	1.11	4.24	.93	26.248	<.001	.03
Deciding 12	3.60	1.13	3.98	.93	29.670	<.001	.03
Deciding 13	2.72	1.21	3.44	1.16	79.025	<.001	.08
Deciding 14	2.92	1.24	3.29	1.25	19.333	<.001	.02
DECIDING	3.33	.94	3.76	.86	48.450	<.001	.05
Preparing 15	2.93	1.29	3.72	1.13	93.255	<.001	.10
Preparing 16	3.09	1.36	4.05	1.08	137.289	<.001	.14
Preparing 17	3.12	1.08	3.83	.85	117.475	<.001	.12
Preparing 18	2.52	1.17	3.04	1.11	44.944	<.001	.05
PREPARING	2.92	.92	3.66	.77	170.127	<.001	.16

TABLE 2. Factorial analysis of the SCCI-Fr among the first split-half.

SCCI items	Factor loading		Factorial structure with quartimax rotation								
	1 st YS	FYS	First-year students				Final-year students				
			F1	F2	F3	F4	F1	F2	F3	F4	
1	.63	.50	.69 (.76)					.55 (.76)			
2	.62	.60	.65 (.76)					.58 (.76)			
3	.48	.64	-					-			
4	.43	.54	-					.51 (.65)			
5	.23	.27	-					-			
6	.45	.58	-					-			
7	.74	.78		.77 (.77)					.55 (.77)		
8	.80	.80		.78 (.90)					.67 (.90)		
9	.65	.72		.50 (.84)					.73 (.84)		
10	.67	.60			.73 (.96)					.73 (.96)	
11	.66	.70			.77 (.92)					.82 (.92)	
12	.69	.72			.75 (.97)					.83 (.97)	
13	.57	.64			.55 (.60)					.67 (.60)	
14	.55	.60			.52 (.69)					.70 (.69)	
15	.63	.51					.73 (.85)				.71 (.85)
16	.54	.68					.70 (.89)				.78 (.89)
17	.71	.60					.76 (.86)				.72 (.86)
18	.42	.51					-				-
	Eigenvalue		1.11	1.28	6.31	1.76		1.761	1.108	7.01	1.11
	Variance extracted		6.19%	7.11%	35.05%	9.78%		9.78%	6.16%	38.92%	6.16%
	TVE		58.12%					61.06%			
	Cronbach α per factor		.74	.82	.85	.75		.69	.87	.87	.74
	Total Cronbach α		.89					.90			

Note. absence of data equals to a factor loading < .50; Loadings in paranthesis refer to those found in Savickas and al. (2018).

1stYS = First-year students.

FYS= Final year students.

TVE = Total Variance Extracted.

F1 = Crystallizing; F2 = Exploring; F3 = Deciding; F4 = Preparing.

TABLE 3. Pearson correlations between dimensions of SCCI-Fr, CAAS-Fr and VISA-Fr among first-year students.

Dimension	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Crystallizing (1)		.25**	.37**	.36**	.52**	.43**	.31**	.37**	.35**	.46**	.35**	.30**	-.15**	-.38**	.08	.36**	.17**
Exploring (2)	.25**		.61**	.48**	.79**	.44**	.25**	.20**	.19**	.35**	.38**	.28**	-.24**	-.35**	.19**	.38**	.20*
Deciding (3)	.37**	.61**		.63**	.88**	.61**	.31**	.20**	.30**	.45**	.61**	.44**	-.42**	-.51**	.08	.41**	.17**
Preparing (4)	.36**	.48**	.63**		.81**	.54**	.28**	.22**	.31**	.43**	.47**	.30**	-.24**	-.35**	.19**	.38**	.24**
SCCI-Fr (5)	.52**	.79**	.87**	.81**		.66**	.38**	.31**	.36**	.54**	.58**	.44**	-.34**	-.50**	.19**	.49**	.26**
Concern (6)	.43**	.44**	.61**	.54**	.66**		.45**	.45**	.47**	.76**	.54**	.47**	-.32**	-.42**	.19**	.47**	.29**
Curiosity (7)	.31**	.25**	.31**	.28**	.38**	.45**		.54**	.55**	.79**	.34**	.32**	-.08	-.27**	.29**	.44**	.35**
Control (8)	.37**	.20**	.20**	.22**	.31**	.45**	.54**		.57**	.80**	.30**	.28**	-.07	-.31**	.20**	.34**	.24**
Confidence (9)	.35**	.19**	.30**	.31**	.36**	.47**	.55**	.57**		.82**	.36**	.28**	-.09	-.28**	.21**	.44**	.31**
CAAS-Fr (10)	.46**	.35**	.45**	.43**	.54**	.76**	.79**	.80**	.82**		.49**	.43**	-.18**	-.41**	.27**	.54**	.38**
Commitment (11)	.35**	.38**	.61**	.47**	.58**	.54**	.33**	.30**	.36**	.49**		.55**	-.55**	-.56**	-.03	.43**	.25**
ID_Commitment (12)	.30**	.28**	.44**	.30**	.44**	.47**	.32**	.28**	.28**	.43**	.55**		-.31**	-.47**	.06	.42**	.38**
Flexibility (13)	-.15**	-.24**	-.42**	-.24**	-.34**	-.32**	-.08	-.07	-.09	-.18**	-.55**	-.31**		-.52**	.27**	-.14**	.38**
Reconsideration (14)	-.38**	-.35**	-.51**	-.35**	-.50**	-.42**	-.28**	-.31**	-.28**	-.41**	-.56**	-.47**	-.52**		.16**	-.31**	.24**
In Breath E. (15)	.08	.19**	.08	.19**	.19**	.17**	.29**	.20**	.21**	.27**	-.03	.06	.27**	.16**		.39**	.73**
In Depth E. (16)	.36**	.38**	.41**	.38**	.49**	.47**	.44**	.34**	.44**	.54**	.43**	.42**	-.14**	-.31**	.39**		.62**
VISA-Fr (17)	.17**	.20**	.17*	.24**	.26**	.29**	.35**	.24**	.31**	.38**	.25**	.38**	.38**	.24**	.73**	.62**	

Note. ID_Commitment = identification to commitment; In Breath E. = In Breath Exploration; In Depth E. = In Depth Exploration.

* = < .05 significance and ** = < .001 significance.

TABLE 4. Pearson correlations between dimensions of SCCI-Fr, CAAS-Fr and visa-Fr among final-year students.

Dimension	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Crystallizing (1)		.22**	.34**	.24**	.45**	.32**	.28**	.34**	.27**	.40**	.30**	.24**	-.12*	-.28**	.06	.31**	.16**
Exploring (2)	.22**		.66**	.53**	.82**	.49**	.22**	.22**	.26**	.39**	.44**	.31**	-.22**	-.33**	.05	.39**	.20**
Deciding (3)	.34**	.66**		.73**	.90**	.63**	.24**	.25**	.33**	.49**	.60**	.42**	-.39**	-.51**	-.10*	.44**	.10*
Preparing (4)	.34**	.53**	.73**		.83**	.56**	.25**	.25**	.32**	.46**	.48**	.36**	-.27**	-.39**	-.06	.41**	.14**
SCCI-Fr (5)	.45**	.82**	.90**	.82**		.67**	.33**	.34**	.39**	.57**	.60**	.45**	.33**	-.49**	.02	.51**	.21**
Concern (6)	.32**	.49**	.63**	.56**	.67**		.41**	.34**	.41**	.72**	.55**	.47**	-.30**	-.49**	.00	.49**	.21**
Curiosity (7)	.28**	.22**	.24**	.25**	.33**	.35**		.45**	.55**	.78**	.22**	.21**	-.05	-.25**	.20**	.35**	.24**
Control (8)	.34**	.22**	.25**	.25**	.34**	.39**	.47**		.49**	.78**	.30**	.28**	-.18**	-.47**	.01	.26**	.02
Confidence (9)	.27**	.26**	.33**	.32**	.39**	.41**	.55**	.49**		.79**	.28**	.29**	-.18**	-.34**	.06	.39**	.15**
CAAS-Fr (10)	.40**	.39**	.49**	.46**	.57**	.72**	.78**	.77**	.79**		.45**	.41**	-.23**	-.51**	.09	.49**	.20**
Commitment (11)	.30**	.44**	.60**	.48**	.60**	.55**	.22**	.30**	.28**	.45**		.55**	-.60**	-.55**	-.26**	.41**	.13**
ID_Commitment (12)	.24**	.31**	.42**	.36**	.45**	.47**	.21**	.28**	.29**	.41**	.55**		-.35**	-.42**	-.14*	.38**	.29**
Flexibility (13)	-.12*	-.22**	-.39**	-.27**	-.33**	-.30**	-.05	-.18**	-.18**	-.23**	-.59**	-.36**		-.50**	.40**	-.19**	.42**
Reconsideration (14)	-.28**	-.33**	-.51**	-.39**	-.49**	-.49**	-.25**	-.47**	-.34**	-.51**	-.55**	-.42**	.50**		.25**	-.32**	.32**
In Breath E. (15)	.06	.05	-.10*	-.06	-.02	.00	.20**	.01	.06	.09	-.26**	-.14**	.40**	.25**		.28**	.66**
In Depth E. (16)	.31**	.39**	.44**	.41**	.51**	.49**	.35**	.26**	.39**	.49**	.41**	.38**	-.19**	-.32**	.22**		.60**
VISA-Fr (17)	.16**	.20**	.10*	.14**	.21**	.21**	.24**	.02	.15**	.20**	.13**	.29**	.42**	.32**	.68**	.53**	

Note. ID_Commitment = identification to commitment; In Breath E. = In Breath Exploration; In Depth E. = In Depth Exploration.

* = < .05 significance and ** = < .001 significance.

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