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PSYCHOMETRIC PROPERTIES OF THE SPANISH CREATIVE SELF-EFFICACY INVENTORY IN AN ARGENTINE UNIVERSITY POPULATION

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Abstract. Creative self-efficacy is a fundamental construct in educational psychology, as it is linked to creativity, academic engagement, and problem-solving skills. Despite its relevance, it remains understudied in Spanish-speaking populations, as validated Spanish-language multidimensional instruments for measuring creative self-efficacy remain scarce. The present study addresses this gap by examining the psychometric properties of the Spanish creative self-efficacy inventory in a sample of Argentine university students (n (number) = 416; age range: 18–67 years). Participants completed five instruments: 1) the Spanish creative self-efficacy inventory; 2) the creative self-efficacy scale; 3) the emotion/motivation-related divergent and convergent thinking styles scale; 4) the creative actions scale; and 5) the creative personality scale. Confirmatory factor analysis validated the hypothesized seven-factor structure of the Spanish creative self-efficacy inventory, demonstrating acceptable model fit indices (CFI (comparative fit index) = .912, TLI (Tucker–Lewis index) = .89, RMSEA (root mean square error of approximation) = .070, SRMR (standardized root mean square residual) = .058). Reliability analyses revealed strong internal consistency for the total Spanish creative self-efficacy inventory (ω (McDonald's omega) = .912), and its subscales. Convergent validity was supported by significant positive correlations between the Spanish creative self-efficacy inventory and related creativity measures. Differences across sex groups emerged, with males scoring higher in science and technology creative actions and females scoring higher in scenic arts and arts and crafts. These results indicate that the Spanish creative self-efficacy inventory is a reliable and valid tool for assessing creative self-efficacy in Argentine university students, contributing to the ongoing cross-cultural research on creativity assessment and the broader field of educational psychology.

Keywords: cognitive style, creative achievements, creative self-efficacy, personality, psychometric properties, sex differences.

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1. Introduction

Creative self-efficacy, defined as an individual's belief in their capacity to generate novel and effective ideas, has emerged as a cornerstone of educational psychology research due to its robust associations with academic engagement, problem-solving competence, and innovation (Bandura, 2009; Tierney & Farmer, 2002). Grounded in Bandura's (2009) social cognitive theory, creative self-efficacy operates as a self-regulatory mechanism, shaping individuals' persistence in creative tasks, resilience to setbacks, and willingness to explore unconventional solutions (Karwowski & Lebuda, 2016). A growing body of evidence

underscores the pivotal role of creative self-efficacy in fostering creative achievement across diverse domains, from scientific innovation to artistic expression (Haase et al., 2018; Lebuda et al., 2021).

The systematic review conducted by Ünal and Taşar (2021) underscores the substantial expansion of research on creative self-efficacy in recent years. Analysing 88 studies, the authors identify the United States, China, and Taiwan (China) as the primary contributors to this growing body of literature. Empirical findings indicate that fostering creative self-efficacy can lead to greater creative engagement and achievement (He, 2022), reinforcing its role as a critical predictor of creative achievement and success. As an essential component of creative behaviour, creative self-efficacy facilitates individuals' ability to navigate and overcome creative challenges, making its study imperative for understanding and fostering creativity across various domains (Karwowski & Kaufman, 2017; Haase et al., 2018).

Educational settings provide an important context for the development of creative self-efficacy, as students with a strong sense of creative self-efficacy exhibit greater engagement in creative processes and demonstrate enhanced resilience when confronted with complex or novel tasks (Abulela, 2024; Alhadihaq et al., 2024). In these contexts, creative self-efficacy not only predicts creative process engagement, but also serves as a strong predictor of creative achievement, leading to more effective problem-solving in challenging academic situations (Ünal & Taşar, 2021). However, research indicates a notable decline in students' creative potential during early adolescence, largely driven by social conformity and restrictive educational environments (Anderson, 2024). This trend highlights the necessity of targeted educational interventions aimed at fostering creative skills. Strengthening creative self-beliefs in both educational and organizational settings may thus serve as a powerful mechanism for enhancing creative production (Choi et al., 2024), reinforcing the importance of interventions that promote creative self-efficacy as a driver of both personal and professional development (He, 2022).

Given the potential benefits of enhanced creative self-efficacy, particularly in educational settings, research into its role as a mediator of academic and creative achievement is becoming increasingly relevant (Ünal & Taşar, 2021). Within this context, validated creative self-efficacy scales provide valuable tools for assessing and supporting students' creative abilities. These scales can be instrumental in identifying students with lower creative self-efficacy, allowing for targeted interventions to enhance their creative abilities (Abulela, 2024). However, despite its theoretical and practical significance, the measurement of creative self-efficacy in Spanish-speaking populations remains underdeveloped.

2. Dimensionality and measurement of creative self-efficacy

The measurement of creative self-efficacy has been predominantly quantitative (Ünal & Taşar, 2021), evolving significantly since its inception to reflect broader theoretical shifts in creativity research from unidimensional to multifaceted models. Early instruments, such as Tierney and Farmer's (2002) 3-item scale, emphasized global self-perceptions of creative capability (*e.g.*, "I have confidence in my ability to solve problems creatively"), prioritizing brevity for ease of administration in organizational and educational settings. This foundational tool inspired

subsequent scales, including Beghetto's (2006) domain-general three-item measure ("I am good at coming up with new ideas") and Choi's (2004) four-item instrument ("I am confident that I can introduce new ideas to the class in a convincing way"), both of which retained a unidimensional focus on self-assessed creative potential. Karwowski's (2011) concise three-item scale ("I think I am creative") exemplified this approach, balancing brevity with reliability. Subsequent developments, including Karwowski et al. (2018) 11-item short scale for creative self and Carmeli and Schaubroeck's (2007) 8-item measure, expanded the scope of assessment while maintaining a unidimensional framework. The recently developed unidimensional instrument by Lamb et al. (2025) further extends this lineage, offering a refined, psychometrically robust measure designed to capture global creative self-efficacy while ensuring applicability across diverse contexts.

To date, Tierney and Farmer's (2002) three-item scale remains one of the most widely used Likert-type instruments for assessing students' belief in their creative potential, owing to its high internal consistency (α (Cronbach's alpha) = .75–.85) and adaptability across contexts (Farmer & Tierney, 2017; Wang et al., 2024). Beghetto's (2006) scale and Karwowski's (2012) six-item creative self-efficacy measure (*e.g.*, "I can come up with creative solutions to complex problems") have also gained prominence in educational research, particularly for their reliability (α = .78–.89) and predictive validity in linking self-efficacy to academic creativity (Suherman & Vidákovich, 2024). However, while these tools advanced the field, their unidimensional structure limited their utility in capturing the dynamic interplay between creative thinking (*e.g.*, divergent ideation) and performance (*e.g.*, domain-specific mastery), a critique underscored by meta-analytic reviews (Haase et al., 2018). This limitation highlighted the need for multidimensional frameworks capable of disentangling the cognitive, contextual, and trait-based facets of creative self-efficacy – a gap addressed by Abbott's (2010) pioneering work on hierarchical models.

Tan et al. (2011) proposed that creative self-efficacy encompasses two interrelated dimensions: 1) cognitive aspects (*e.g.*, creative thinking processes) and 2) executive aspects (*e.g.*, tangible creative achievements). This framework was operationalized through iterative scale development, beginning with Tan et al. (2007) 8-item instrument, later expanded to 9-item (Tan et al., 2008), and 10-item versions (Hill et al., 2008). Though modified across iterations, these scales consistently emphasized two core components: 1) cognitive style (*e.g.*, ideational flexibility) and 2) work style (*e.g.*, persistence in creative tasks), as conceptualized by R. Yew L. Tan and Tan (2015).

Parallel advancements emerged with Abbott's (2010) creative self-efficacy inventory, which comprises two distinct yet interrelated dimensions: 1) creative thinking self-efficacy and 2) creative performance self-efficacy. Creative thinking self-efficacy assesses cognitive processes in creativity, encompassing fluency (idea generation), flexibility (adaptive problem-solving), elaboration (idea refinement), and originality (novel solutions). Creative performance self-efficacy, in contrast, evaluates confidence in applying creativity, structured around domain expertise (proficiency in a specific field), field recognition (acceptance by relevant audiences), and personality traits (curiosity, persistence, and resilience). While both dimensions contribute to creative self-efficacy, creative thinking self-efficacy emphasizes internal cognitive mechanisms, whereas creative performance self-efficacy focuses on external

validation and application. This model integrates key creativity theories, notably Guilford's (1967) creative thinking framework and Csikszentmihalyi's (1999) systems approach, providing a comprehensive assessment of self-efficacy in ideation and real-world creative performance. The inventory's cross-cultural robustness has been confirmed through translations and validations in Arabic (Alotaibi, 2016), Spanish (Flores Puga, 2020), Turkish (Atabek, 2020), and Iranian populations (Michaeli Manee & Abkhiz, 2023), as well as broader applications in diverse settings (Vally et al., 2019; Daher et al., 2021).

This shift from unidimensional to multidimensional models reflects a growing consensus that creativity is inherently complex, requiring instruments that disentangle cognitive processes from contextual and cultural influences (Guo et al., 2023). The Spanish creative self-efficacy inventory (Flores Puga, 2020) exemplifies this progress, demonstrating strong psychometric properties, including internal consistency (α = .84–.92)) and temporal stability across its seven subscales. Its design enables precise assessment of creative thinking components (*e.g.*, fluency, flexibility) and achievement-related factors (*e.g.*, domain, personality), making it particularly valuable for evaluating educational interventions. Validating the Spanish creative self-efficacy inventory within Argentina's university population represents a critical step toward understanding culturally situated creativity, addressing a gap in Latin American research while advancing global efforts to measure creative self-efficacy with greater accuracy and relevance.

3. The role of sex, cognitive traits, personality, and creative achievement variables in creative self-efficacy

Creative self-efficacy is influenced by a complex interplay of individual and contextual factors, including sex, cognition, personality, and prior creative achievements. Understanding these relationships is crucial for designing targeted interventions to nurture creativity across diverse populations. While the literature has extensively explored these variables, their interactions with creative self-efficacy reveal nuanced patterns that underscore the multidimensionality of creative self-beliefs.

3.1. Creative self-efficacy across sex groups

The relationship between creative self-efficacy and participants' sex remains contested, with meta-analyses yielding inconsistent conclusions. Baer and Kaufman's (2008) synthesis of 78 studies found no statistically significant sex-related differences in general creative ability, a pattern corroborated in creative self-efficacy-specific investigations by some authors (Beghetto et al., 2011; Taylor et al., 2024), who reported comparable levels of creative self-efficacy across sex groups. These findings are further supported by other authors (Haase et al., 2018; Kerr, 2009), who observed minimal disparities by sex in global creative self-efficacy assessments. However, contradictory evidence highlights domain- and task-specific trends. For instance, Brockhus et al. (2014) and Hung (2018) documented that males males tend to report higher creative self-efficacy scores despite producing quantitatively equivalent creative outputs to females, a phenomenon potentially indicative of systematic underestimation of

creative capabilities by women. Karwowski (2011) similarly identified elevated creative self-efficacy levels among males, positing that sociocultural biases in self-assessment mechanisms may contribute to these disparities.

The variability in findings is further complicated by domain-specific analyses. Karwowski et al. (2015) demonstrated that males report higher creative self-efficacy in mathematics, whereas females exhibit greater confidence in language-related tasks. Sex-related gaps also emerge in creative domains: females consistently score higher in arts, crafts, and everyday creativity, while males report stronger self-efficacy in music, science, and technology (Elisondo et al., 2022). Hyeon Paek and Runco's (2017) analysis of the creative activity and accomplishment checklist revealed limited overall differences regarding sex, though boys outperformed girls in technological creativity and girls surpassed boys in artistic domains. Similarly, Miroshnik et al. (2022) found that females rated themselves higher than males across all creative domains except science, with the most pronounced differences occurring in artistic self-assessments. Collectively, these findings suggest that sex-related variations in creative self-efficacy are not intrinsic to creative ability *per se* but are instead mediated by contextual factors, such as domain-specific socialization and task demands. This interpretation aligns with Baer and Kaufman's (2008) assertion that environmental and situational variables – rather than biological or cognitive differences – underpin observed disparities in creative self-perception across sex groups.

Recent research indicates that while sex-based differences in mean creative self-efficacy scores are minimal, variability analyses provide a more comprehensive perspective. He and Wong (2021) found that men exhibit greater dispersion in creative self-efficacy scores, with overrepresentation at both high and low extremes. Although a small male advantage was observed (Cohen's d = .24), the findings suggest that variability, rather than systematic superiority, defines male creative self-efficacy patterns. These results highlight the need to assess both mean and variability metrics to accurately capture sex-related differences, supporting the role of contextual and socialization factors over intrinsic ability in shaping creative self-perception (He & Wong, 2021).

3.2. Cognitive traits and creative self-efficacy

Cognitive traits, particularly those associated with creative cognition, constitute another critical predictor of creative self-efficacy. Empirical research by He (2022) demonstrated that creative self-efficacy is a strong predictor of the use of creative cognition, which encompasses the processes of idea generation, perspective-taking, and solution exploration. Individuals with elevated creative self-efficacy are more likely to engage in divergent thinking, a cognitive process essential to creativity. However, the relationship between creative self-efficacy and divergent thinking is nuanced. While Pretz and Kaufman (2017) and Puente-Diaz and Cavazos Arroyo (2016) identified only weak correlations between global creative self-efficacy and divergent thinking, Hass et al. (2019) reported stronger associations with specific dimensions of divergent thinking, such as ideational fluency, suggesting task- and measure-dependent variability. Importantly, creative self-efficacy transcends mere reflection of creative ability; it also predicts behavioural intention to employ creative skills in real-world contexts.

Recent advancements highlight the interplay between cognitive and non-cognitive factors in shaping creative self-efficacy. He and Chiang (2024) emphasized the role of growth mindset – the belief that creativity is malleable through effort and strategy – as a mediator between creative self-efficacy and creative outcomes. Their longitudinal study demonstrated that growth mindset interventions in educational settings significantly enhance both creative self-efficacy and divergent thinking performance. Furthermore, Flores Puga's (2020) investigation revealed moderate correlations between proactive divergent thinking style and creative self-efficacy dimensions, underscoring the reciprocal relationship between cognitive strategies and self-beliefs. Emerging research also underscores creative self-efficacy as a key mediator in the relationship between achievement goals and creativity, where mastery and performance-approach goals enhance creativity indirectly through creative self-efficacy, reinforcing the role of self-perceived creative competence in fostering persistence, cognitive flexibility, and problem-solving (Du et al., 2020). Additionally, creative self-efficacy functions as a crucial metacognitive regulator, shaping self-monitoring and cognitive control in creative tasks (Kenett & Ackerman, 2023). Positioned within the broader framework of creative metacognition, it influences decision-making by enhancing persistence, adaptive risk-taking, and self-assessment accuracy. This synergy between cognitive and self-regulatory factors underscores the necessity of holistic interventions that integrate skill development, mindset training, and metacognitive reflection to optimize creative potential.

3.3. Personality and creative self-efficacy

The relationship between personality traits and creative self-efficacy has garnered significant scholarly attention, driven by the interplay between individual dispositions and self-perceived creative capabilities. While creativity is often associated with traits such as openness to experience and extraversion (Batey et al., 2010; Chamorro-Premuzic & Reichenbacher, 2008), the direct linkage between personality and creative self-efficacy remains nuanced. A robust consensus identifies openness to experience and extraversion as the strongest positive correlates of both creativity and creative self-efficacy (Abbott, 2010; Karwowski et al., 2013; Karwowski & Lebuda, 2016; Sánchez-Ruiz et al., 2011), reflecting their role in fostering curiosity and receptivity to novel ideas. Notably, sex moderates these relationships: extraversion significantly predicts creative self-efficacy in females, whereas conscientiousness – a trait linked to goal-directed persistence – shows stronger associations in male individuals (Karwowski et al., 2013; Flores Puga, 2020).

Gough's (1979) creative personality scale, a 30-item instrument assessing self-perceived traits such as originality and nonconformity, has been empirically validated as a predictor of creative output. Meta-analytic evidence confirms its convergence with divergent thinking tests (Carson et al., 2005), creative activity inventories (Dollinger et al., 2005), and achievement metrics (Batey & Furnham, 2008; Wolfradt & Pretz, 2001). In Argentine populations, Aranguren et al. (2011) and Aranguren and Irrazábal (2012) demonstrated significant correlations between creative personality scale scores and creative self-efficacy, particularly in entrepreneurial and artistic domains, underscoring the cultural universality of these trait-efficacy dynamics. These findings collectively underscore the necessity of integrating personality assessments into creativity research, not only to predict creative potential but also to elucidate the self-belief mechanisms that drive creative behaviour.

3.4. Creative achievements and creative self-efficacy

Creative achievement is robustly influenced by self-perception mechanisms, particularly creative self-efficacy and creative personal identity, which serve as reliable predictors of creative output across diverse domains (Beghetto, 2006; Jaussi et al., 2007; Tierney & Farmer, 2002, 2011). Pretz and McCollum's (2014) analysis of the creative achievement questionnaire (Carson et al., 2005) revealed significant positive correlations between all measures of creative self-perception and prior creative achievements. These findings suggest that retrospective creative achievements are more strongly associated with self-beliefs than with concurrent task performance. This aligns with Silvia et al. (2009) findings, which reported strong associations between self-efficacy and everyday creativity, as well as work by Aranguren et al. (2011) and Aranguren and Irrazábal (2012) linking creative self-efficacy and creative achievement to entrepreneurial activities in Argentine samples.

In educational settings, Fang and Chang (2023) demonstrated that creative self-efficacy significantly mediates creative achievement among Chinese university students. Expanding this inquiry, Lebuda et al. (2021) delineated domain-specific predictors of creative activity: intelligence and the intellect personality trait dominated in scientific domains (β (standardized regression coefficient) = .44), openness to experience in artistic contexts and a balanced interplay of intelligence, personality, and self-concept in everyday creativity. These findings underscore the multidimensional nature of creativity, where cognitive, trait-based, and self-perceptual factors interact dynamically across contexts.

3.5. Present study

This study examines the psychometric properties of the Spanish creative self-efficacy inventory (CSEI-S; Flores Puga, 2020) in an Argentine university student population, thereby addressing a relevant gap in Latin American creativity research. Building on Abbott's (2010) framework, the study evaluates the convergent validity of the CSEI-S through its associations with global CSE (Tierney & Farmer, 2002), creative personality (Freiberg Hoffmann et al., 2019), domain-specific creative actions (Elisondo, 2021), and emotion- and motivation-related divergent and convergent thinking styles (Soroa et al., 2015). Confirmatory factor analysis (CFA) was used to test the hypothesized seven-factor structure, and additional analyses examined measurement invariance and sex-related differences. In doing so, the study contributes to a more robust understanding of CSE in an underrepresented educational context.

4. Method

4.1. Participants

The sample comprised 416 university students with a demographic composition of 89.0% female (n = 370) and 11.0% male (n = 46). Participants' ages ranged from 18 to 67 years (M (mean) = 24.28, SD (standard deviation) = 6.82), with the cohort stratified into three age brackets: 76.0% (n = 316) aged 18–25 years, 19.0% (n = 79) aged 26–40 years, and 5.0% (n = 21) aged 41–67 years. Participants were primarily recruited from the National University of Río Cuarto, Argentina (89.0%, n = 370), with the remainder (11.0%, n = 46) attending other

accredited higher education institutions in other accredited higher education institutions in the southern region of Córdoba Province, Argentina. Geographically, 95.0% (n = 395) resided within the Río Cuarto metropolitan area in Córdoba Province, while 5.0% (n = 21) resided in peripheral towns within a 100-kilometer radius.

4.2. Instruments

Five validated psychometric instruments were administered in this study: 1) the Spanish adaptation of Abbott's (2010) creative self-efficacy inventory (Flores Puga, 2020); 2) the creative self-efficacy scale (Tierney & Farmer, 2002); 3) the emotion/motivation-related divergent and convergent thinking styles scale (EDICOS) (Soroa et al., 2015); 4) the creative actions scale (Elisondo, 2021); and 5) the creative personality scale (Freiberg Hoffmann et al., 2019).

The Spanish creative self-efficacy inventory, adapted for Spanish-speaking populations by Flores Puga (2020), is a 21-item self-report questionnaire structured across seven dimensions: 1) fluency; 2) flexibility; 3) elaboration; 4) originality; 5) domain; 6) field; and 7) personality. Responses were recorded on a 6-point Likert scale (1 = strongly disagree; 6 = strongly agree). For each of the seven subscales, the minimum score is 3 and the maximum score is 18. The Spanish creative self-efficacy inventory comprises two higher-order factors: 1) creative thinking self-efficacy scale (fluency, flexibility, elaboration, and originality) and 2) creative performance self-efficacy scale (domain, field, and personality), with three items per subscale. We used the 21-item version of the Spanish creative self-efficacy inventory, and CFA results using robust maximum likelihood estimation supported the revised model, confirming three items for each subscale and a total of 21 items (χ^2 (chi-squared test) (178) = 295.571, p (p-value) < .01, CFI = .95, RMSEA = .05, SRMR = .06, and AIC (Akaike information criterion) = 52758.669) (Abulela, 2024).

The creative self-efficacy scale (Tierney & Farmer, 2002) was employed to assess individuals' perceived capacity for creative work. This scale consists of three items, each rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). An example item is "I have confidence in my ability to solve problems creatively". Despite its brevity, the scale has demonstrated adequate psychometric properties, with a reliability coefficient (α = .75), supporting its internal consistency and construct validity. The minimum score of the scale is 3 and the maximum is 18. Previous studies have reported Cronbach's alpha coefficients ranging from .83 to .87. Factor analyses demonstrated adequate model fit: χ^2 = 141.69, df = 8, p < .001, CFI = .97, IFI (incremental fit index) = .97, RMSEA = .08 (Tierney & Farmer, 2002).

The EDICOS (Soroa et al., 2015) is a 30-item self-report questionnaire designed to assess stable individual differences in affective and motivational dispositions underlying divergent and convergent cognitive processes. For the purposes of this study, two of the scale's four validated subscales were administered: 1) convergent-preventive style, which reflects a preference for systematic problem analysis ("I find it valuable to reflect deeply on problems"), and 2) divergent-proactive style, which captures enthusiasm for novel and unconventional challenges ("I am motivated to engage in original challenges"). Participants rated each item on a 6-point Likert scale (1 = strongly disagree; 6 = strongly agree). The selected subscales showed satisfactory internal consistency, with Cronbach's alpha coefficients of .86 for the convergent-preventive style and .84 for the divergent-proactive style. Additionally, the

correlation coefficients between the test and retest for these dimensions were also acceptable, measuring .68 for the convergent-preventive style and .65 for the divergent-proactive style. For the convergent-preventive style subscale, scores range from 8 to 48, whereas for the divergent-proactive style subscale, scores range from 9 to 54. Most fit indices indicated acceptable fit for the four-factor model: 1) CFI = .98; 2) TLI = .95; 3) RMSEA = .05, and 4) SRMR = .06 (Soroa et al., 2015).

The creative actions scale, developed by Elisondo (2021), is a multidimensional instrument designed to assess the frequency of engagement in everyday creative activities across seven domains: 1) literature; 2) plastic arts and crafts; 3) science and technology; 4) dramatic arts; 5) music; 6) social participation; and 7) everyday creativity. The creative actions scale aims to identify individual differences in creative engagement by prompting participants to retrospectively evaluate their involvement in domain-specific creative activities over the past ten years. Items assess both personal achievements (*e.g.*, writing a story, painting a picture) and externally recognized accomplishments, such as awards or participation in relevant organizations, thereby incorporating the social dimension of creative development. The creative actions scale is conceptually aligned with existing measures, such as the creative behaviour inventory and the biographical inventory of creative behaviours but extends beyond these by explicitly integrating social participation and everyday creativity as key components. The scale consists of 42 items, six for each domain, and participants rate their frequency of engagement in each activity using a Likert scale (1 = never, 5 = always). Psychometric analyses indicate satisfactory internal consistency ($\alpha > .70$) for most domains, except for literature ($\alpha = .61$) and science and technology ($\alpha = .60$), suggesting potential variability in these domains' conceptual coherence or participant response patterns. The minimum score for each domain is 6 and the maximum is 30. The CFA showed an adequate fit of the seven-domain model, χ^2(df = 798, n = 1604) = 2414, $p < .001$, CFI = .926, GFI (goodness of fit index) = .994, SRMR = .093, RMSEA = .036 (Elisondo, 2021).

The creative personality scale (Freiberg Hoffmann et al., 2019) is based on a locally adapted version of the Adjective Check List originally devised by some authors (Leibovich de Figueroa & Schufer de Paikin, 1989) and derived from Gough's (1979) 30-item model. Respondents rate a series of adjectives on a dichotomous scale, indicating whether each descriptor applies to them (+) or not (−). Of the 30 items, 18 are considered positively weighted (+) and contribute to the total score, representing traits commonly associated with creativity (*e.g.*, capable, clever, confident, insightful, inventive, original, resourceful). Conversely, 12 adjectives are negatively weighted and are subtracted from the total score, as they reflect characteristics considered counter-indicative of creative personality (*e.g.*, cautious, conventional, narrow interests, and submissive). The analyses indicate satisfactory internal consistency ($\alpha >$ .85). The model was validated through CFA, which showed satisfactory fit indices NFI (normed fit index) = .943, NNFI (non-normed fit index) = .980, CFI = .986, IFI = .986, RMSEA = .04 (.00–.08) (Freiberg Hoffmann et al., 2019). In the present study, 12 positive items from the full creative personality scale and the 6 positive items from the abbreviated version (creative personality scale (short)) were used. In the total scale, the minimum score is 0 and the maximum is 18 and, in the abbreviated version, the minimum is 0 and the maximum is 6.

4.3. Procedure

Five experts in the psychometric assessment of creativity reviewed the Spanish version of Abbott's creative self-efficacy inventory (Flores Puga, 2020). Following this review and considering the linguistic nuances specific to Argentina, item 20 of the scale was revised from "In order to convince that my idea is the best, I am able to identify an audience that is well connected with the rest of society" to "In order to convince that my idea is the best, I am able to identify and contact influential people in society".

All instruments were administered online, and participants provided their informed consent to participate in the study and for their anonymized data to be used for research purposes and reported in aggregate form. The research adhered to the ethical principles outlined by the American Psychological Association (2017). Descriptive statistics (mean, standard deviation, minimum, maximum, kurtosis, and skewness), Pearson correlation coefficients, CFA, multi-group factor analysis, McDonald's omega reliability analysis, and Mann–Whitney U test were performed using *SPSS* 20 and *Jamovi* software. Harman's one-factor test (Podsakoff et al., 2003) was used to examine the potential influence of common method bias. Exploratory factor analyses were conducted by combining the CSEI-S items with the items from each additional instrument. In no case did a single factor account for more than 50% of the variance. Specifically, the first factor accounted for 38% of the variance for the combined CSEI-S and CSE items, 31% for the combined CSEI-S and EDICOS items, 26% for the combined CSEI-S and CAS items, 24% for the combined CSEI-S and CPS items, and 30% for the combined CSEI-S and CPS Short items. These results suggest that common method bias is unlikely to fully account for the observed associations.

5. Results

5.1. Factorial validity of the instrument

A CFA was conducted to test a correlated seven-factor model comprising fluency, flexibility, elaboration, originality, domain, field, and personality. The model showed acceptable fit to the data: χ^2 (168) = 541, p < .001, χ^2/df = 3.22, CFI = .912, TLI = .890, RMSEA = .070, and SRMR = .058. Additional CFAs were then performed for the four-factor creative thinking self-efficacy scale dimension (1) fluency, 2) flexibility, 3) elaboration, and 4) originality) and the three-factor creative performance self-efficacy scale dimension (1) domain, 2) field, and 3) personality). For the creative thinking self-efficacy scale model, fit indices were also acceptable: χ^2 (48) = 112, p < .001, χ^2/df = 2.33, CFI = .960, TLI = .940, and RMSEA = .058. For the creative performance self-efficacy scale model, fit indices were as follows: χ^2 (24) = 150, p < .001, χ^2/df = 6.25, CFI = .925, TLI = .880, and RMSEA = .11 (see Tables 1–2).

Table 1. Confirmatory factor analysis: factor loadings for items of the creative thinking self-efficacy scale (source: created by authors)

Items	Fluency	Flexibility	Elaboration	Originality
"I think of many answers to a problem".	.757			
"The ideas that come to me are often different from each other".	.582			
"While I am evaluating a problem, I think of several ideas".	.632			
"When faced with problems, I respond in different ways or styles".		.322		
"When it comes to telling or solving something, I am able to resort to my dreams and/or illusions".		.302		
"I associate my new ideas or dreams with things I have already learned".		.313		
"I am usually the first person in the group to come up with an original proposal".			.744	
"I find a novel solution before other people".			.707	
"I outdo the rest by being the first to imagine a new idea".			.933	
"I usually find meaning in what I learn".				.607
"I begin to learn something, even when there are obstacles to doing so".				.847
"I learn by myself to do something new".				.553

Note: χ^2 (chi-squared test) (48) = 112, *p* (*p*-value) < .001, χ^2/df (difference) = 2.33, CFI (comparative fit index) = .960, TLI (Tucker–Lewis index) = .940, RMSEA (root mean square error of approximation) = .058.

Table 2. Confirmatory factor analysis: factor loadings for items of the creative performance self-efficacy scale (source: created by authors)

Items	Domain	Field	Personality
"I am able to create something new that people will choose over other novelties available".	.301		
"In order to convince people that my idea is the best, I am able to identify and contact influential people in society".	.760		
"I work with other people to convince them that what I do is the best".	.883		
"I am able to motivate myself to generate new ideas".		.751	
"I have fun creating new ideas after having learned from other people".		.705	
"I feel that, if I want, I can come up with new ideas".		.809	
"I feel that I am good at generating ideas".			.671
"I trust in my ability to solve problems creatively".			.550
"I have a special ability to continue developing the ideas of others".			.822

Note: χ^2 (chi-squared test) (24) = 150, *p* (*p*-value) < .001, χ^2/df (difference) = 6.25, CFI (comparative fit index) = .925, TLI (Tucker–Lewis index) = .880, RMSEA (root mean square error of approximation) = .11.

5.2. Reliability

Table 3 presents descriptive data for the scales and dimensions. Internal consistency was strong for the total Spanish creative self-efficacy inventory and acceptable for most subscales, although flexibility, creative personality scale, and creative personality scale (short) showed comparatively modest reliability coefficients.

Table 3. Descriptive statistics of the scales and dimensions evaluated (n (number) = 416) (source: created by authors)

	Mean	Standard deviation	Skewness	Kurtosis	Minimum	Maximum	McDonald's omega
Creative self-efficacy	13.33	2.44	–.49	.45	5	18	.74
Creative actions scale	82.03	29.11	2.52	7.93	45	210	.96
Everyday creativity	21.89	4.84	–.32	–.53	6	30	.76
Plastic arts and crafts	12.02	5.71	1.30	1.36	6	30	.82
Scenic arts	11.89	6.46	1.18	.56	6	30	.86
Music	8.04	5.07	3.22	10.16	6	30	.94
Social participation	10.82	5.60	1.56	2.15	6	30	.87
Science and technology	8.32	4.81	3.13	10.11	6	30	.90
Literature	9.01	5.07	2.60	6.96	6	30	.90
EDICOS* (convergent)	37.57	6.98	–.84	.97	8	48	.87
EDICOS* (divergent)	40.54	8.08	–.60	.57	11	54	.90
Creative personality scale	6.00	3.04	–.51	.19	0	12	.62
Creative personality scale (short)	3.54	1.70	–.74	.30	0	6	.60
Spanish creative self-efficacy inventory	88.39	15.24	–.22	–.19	47	126	.92
Creative thinking self-efficacy scale	51.00	8.43	–.17	–.08	25	72	.86
Creative performance self-efficacy scale	37.38	7.62	–.27	–.18	12	54	.87
Originality	14.31	2.49	–.56	.36	3	18	.75
Field	14.34	2.86	–.83	.80	3	18	.70
Personality	12.87	2.84	–.33	–.11	3	18	.79
Fluency	12.84	2.56	–.14	–.09	5	18	.75
Flexibility	13.39	2.60	–.31	–.27	3	18	.61
Elaboration	10.45	3.21	–.05	–.34	3	18	.85
Domain	10.16	3.38	.00	–.54	3	18	.77

*Note**: EDICOS – emotion/motivation-related divergent and convergent thinking styles scale.

5.3. Construct validity

Correlations between the creative self-efficacy scale (CSE; Tierney & Farmer, 2002) and CTSE-S, CPSE-S, and the total CSEI-S were significant and high (r = .723, r = .646, and r = .725, respectively). Additionally, moderate to strong correlations were observed between CSE and the seven CSEI-S dimensions. Significant and moderate correlations were also found between CTSE-S, CPSE-S, and CSEI-S and both the full and abbreviated versions of the creative personality scale (CTSE-S: r = .335 and r = .406; CPSE-S: r = .386 and r = .460; CSEI-S: r = .380 and r = .457). Furthermore, CTSE-S, CPSE-S, and CSEI-S were significantly and moderately correlated with convergent thinking style (r = .420, r = .385, and r = .424, respectively) and proactive divergent thinking style (r = .534, r = .534, and r = .562, respectively). Regarding creative actions, significant correlations were observed between the self-efficacy scales (CTSE-S, CPSE-S, and CSEI-S) and everyday creativity (r = .427, r = .404, and r = .434), social participation (r = .309, r = .328, and r = .330), plastic arts and crafts (r = .255, r = .249, and r = .267), scenic arts (r = .168, r = .160, and r = .170), and the total CAS score (r = .394, r = .393, and r = .412) (see Table 4).

5.4. Measurement invariance across sex groups

Multi-group CFA was used to test configural, metric, and scalar invariance across sex groups for Spanish creative self-efficacy inventory, creative thinking self-efficacy scale, and creative performance self-efficacy scale. Changes in fit indices across configural, metric, and scalar models remained below conventional cutoff criteria for all scales (see Table 5).

Sex differences were examined across all scales and subscales. In the Spanish creative self-efficacy inventory dimensions, males obtained higher mean scores in all subscales except flexibility; however, a statistically significant difference was observed only for originality, with a small effect size. Significant sex differences were also observed for creative self-efficacy, with males scoring higher than females, again with a small effect size. In the creative actions scale, significant differences were found in three domains: females scored higher in 1) scenic arts and 2) plastic arts and crafts, whereas males scored higher in science and technology. In EDICOS, a significant sex difference with a small effect size was observed only for the convergent subscale, with males scoring higher on average. No significant sex differences were found for the divergent subscale. No other significant sex-related differences were observed (see Table 6).

Table 4. Correlations among Spanish creative self-efficacy inventory, creative self-efficacy, creative personality scale, emotion/motivation-related divergent and convergent thinking styles scale, and creative actions scale (n (number) = 416) (source: created by authors)

	CPS*1	CPS*1 (short)	CTSE-S*2	CPSE-S*3	CSEI-S*4	EDICOS_Conv.*5	EDICOS_Div.*6	CSEI-S_Orig.*7	CSEI-S_F.*8	CSEI-S_Pers.*9	CSEI-S_Flue.*10	CSEI-S_Flex.*11	CSEI-S_Dom.*12	CSEI-S_Elab.*13	CAS_Ev.Creat.*14	CAS_Plas.Arts.*15	CAS_Scen.Arts.*16	CAS_Mus.*17	CAS_Soc.Part.*18	CAS_Sci.Tech.*19	CAS_Lit.*20	CAS*21
CSE*22	.378*	.384*	.723*	.646*	.725*	.390*	.464**	.490*	.574*	.659*	.695*	.471*	.440*	.597*	.385*	.246*	.146*	.156*	.251*	.173**	.087	.359**
CPS*1		.742**	.335**	.386**	.380**	.104*	.265**	.174**	.238**	.365**	.243**	.250**	.364**	.363**	.209**	.162**	.166**	.105*	.245**	.121*	.083	.257**
CPS*1 (short)			.406**	.460**	.457**	.158**	.351**	.236**	.352**	.417**	.288**	.329**	.382**	.379**	.258**	.245**	.150**	.127**	.219**	.169**	.151**	.306**
CTSE-S*23				.788**	.950**	.420**	.534**	.705**	.670**	.740**	.785**	.779**	.597**	.788**	.427**	.255**	.168**	.153**	.309**	.183**	.113*	.394**
CPSE-S*24					.938**	.385**	.534**	.612**	.808**	.862**	.575**	.614**	.825**	.630**	.404**	.249**	.160**	.141**	.328**	.234**	.091	.393**
CSEI-S*25						.424**	.562**	.697**	.776**	.844**	.721**	.739**	.741**	.755**	.434**	.267**	.170**	.151**	.330**	.214**	.104*	.412**
EDICOS_Conv.*5							.583**	.479**	.394**	.392**	.394**	.286**	.228**	.229**	.408**	.139**	–.058	.022	.142**	.176**	.095	.235**
EDICOS_Div.*6								.435**	.562**	.484**	.456**	.432**	.339**	.360**	.450**	.146**	–.008	.044	.212**	.159**	.088	.274**
CSEI-S_Orig.*7									.617**	.562**	.481**	.466**	.406**	.359**	.368**	.153**	.026	.013	.181**	.107*	.038	.255**
CSEI-S_F.*8										.652**	.544**	.525**	.454**	.429**	.391**	.217**	.105*	.070	.196**	.138**	.034	.301**
CSEI-S_Pers.*9											.583**	.527**	.551**	.617**	.397**	.219**	.155**	.147**	.287**	.217**	.120*	.385**
CSEI-S_Flue.*10												.493**	.369**	.494**	.318**	.183**	.104*	.069	.206**	.127**	.049	.273**
CSEI-S_Flex.*11													.501**	.475**	.366**	.216**	.150**	.140**	.232**	.096	.099*	.320**
CSEI-S_Dom.*12														.544**	.255**	.205**	.134**	.144**	.333**	.242**	.075	.314**
CSEI-S_Elab.*13															.295**	.241**	.214**	.237**	.321**	.218**	.158**	.370**
CAS_Ev.Creat.*14																.281**	.280**	.208**	.449**	.242**	.280**	.653**
CAS_Plas.Arts.*15																	.462**	.385**	.356**	.372**	.393**	.688**
CAS_Scen. Arts.*16																		.434**	.406**	.284**	.393**	.715**
CAS_Mus.*17																			.382**	.384**	.459**	.543**
CAS_Soc.Part.*18																				.404**	.414**	.701**
CAS_Sci.Tech.*19																					.398**	.517**
CAS_Lit.*20																						.599**

Notes:
*1: CPS – creative personality scale;
*2: CTSE-S – creative thinking self-efficacy scale;
*3: CPSE-S – creative performance self-efficacy scale;
*4: CSEI-S – creative self-efficacy inventory-Spanish;
*5: EDICOS_Conv. – emotion/motivation-related divergent and convergent thinking styles scale (convergent);
*6: EDICOS_Div. – emotion/motivation-related divergent and convergent thinking styles scale (divergent);
*7: CSEI-S_Orig. – Spanish creative self-efficacy inventory (originality);
*8: CSEI-S_F. – Spanish creative self-efficacy inventory (field);
*9: CSEI-S_Pers. – Spanish creative self-efficacy inventory (personality);
*10: CSEI-S_Flue. – Spanish creative self-efficacy inventory (fluency);
*11: CSEI-S_Flex. – Spanish creative self-efficacy inventory (flexibility);
*12: CSEI-S_Dom. – Spanish creative self-efficacy inventory (domain);
*13: CSEI-S_Elab. – Spanish creative self-efficacy inventory (elaboration);
*14: CAS_Ev.Creat. – creative actions scale (everyday creativity);
*15: CAS_Plas.Arts. – creative actions scale (plastic arts and crafts);
*16: CAS_Scen.Arts. – creative actions scale (scenic arts);
*17: CAS_Mus. – creative actions scale (music);
*18: CAS_Soc.Part. – creative actions scale (social participation);
*19: CAS_Sci.Tech. – creative actions scale (science and technology);
*20: CAS_Lit. – creative actions scale (literature);
*21: CAS – creative actions scale;
*22: CSE – creative self-efficacy;
*23: CTSE-S – creative thinking self-efficacy scale;
*24: CPSE-S – creative performance self-efficacy scale;
*25: CSEI-S – Spanish creative self-efficacy inventory.

Table 5. Measurement invariance across sex groups (source: created by authors)

	Comparative fit index	Tucker–Lewis index	Root mean square error of approximation	Standardized root mean square residual	Delta-comparative fit index	Delta- root mean square error of approximation	Delta-standardized root mean squared residual
Spanish creative self-efficacy inventory							
Configural	.900	.876	.079	.070			
Metric	.895	.874	.079	.068	<.01	<.01	<.01
Scalar	.888	.870	.080	.069	<.01	<.01	<.01
Creative thinking self-efficacy scale							
Configural	.945	.929	.071	.049			
Metric	.938	.921	.075	.052	<.01	<.01	<.01
Scalar	.936	.919	.076	.053	<.01	<.01	<.01
Creative performance self-efficacy scale							
Configural	.928	.893	.110	.076			
Metric	.927	.902	.105	.076	<.01	<.01	<.01
Scalar	.919	.898	.107	.079	<.01	<.01	<.01

Note: delta means a change.

Table 6. Means, standard deviations, Mann–Whitney U test statistics, and effect sizes by sex across all scales and dimensions (source: created by authors)

	Female n*1 = 370		Male n*1 = 46		Mann–Whitney U / U	*p*-value	Effect
	Mean	Standard deviation	Mean	Standard deviation			
Creative actions scale (total)	82.42	29.58	78.62	24.60	7071	.502	–.0997
Plastic arts and crafts	12.24	5.79	10.12	4.68	5964	.010	–.2406
Everyday creativity	22.00	4.86	20.95	4.58	6709	.120	–.1458
Science and technology	8.19	4.88	9.55	4.09	5211	.001	.3366
Music	8.03	5.06	8.19	5.26	7702	.803	.0194
Literature	9.06	5.16	8.64	4.34	7378	.502	–.0607
Scenic arts	12.11	6.54	9.93	5.51	6082	.015	–.2257
Social participation	10.78	5.60	11.24	5.73	7634	.764	.0281
Creative thinking self-efficacy scale	50.80	8.58	52.8	6.87	6897	.195	.1219
Creative performance self-efficacy scale	37.20	7.75	39.5	6.09	6848	.102	.1536
Spanish creative self-efficacy inventory	88.00	15.52	92.2	11.96	6773	.143	.1377
Elaboration	10.39	3.21	11.07	3.23	7035	.266	.1043

End of Table 6

	Female n*1 = 370		Male n*1 = 46		Mann–Whitney U / U	*p*-value	Effect
	Mean	Standard deviation	Mean	Standard deviation			
Domain	10.06	3.37	11.10	3.41	6440	.055	.1801
Field	14.31	2.91	14.62	2.48	7567	.696	.0365
Personality	12.78	2.90	13.76	2.13	6433	.053	.1809
Fluency	12.77	2.59	13.50	2.24	6437	.053	.1805
Flexibility	13.44	2.60	13.00	2.66	7028	.260	–.1052
Originality	14.21	2.54	15.19	1.78	6141	.019	.2182
EDICOS*2 (convergent)	37.28	7.11	40.19	5.09	6032	.014	.2320
EDICOS*2 (divergent)	40.57	8.23	40.29	6.82	7184	.364	–.0853
Creative self-efficacy	13.25	2.49	14.07	1.76	6414	.049	.1833
Creative personality scale	5.96	3.05	6.43	2.96	7082	.293	.0984
Creative personality scale (short)	3.59	1.70	3.12	1.77	6605	.085	–.1591

Notes: *1: n – number; *2: EDICOS – emotion/motivation-related divergent and convergent thinking styles scale.

6. Discussion

This study provides evidence supporting the psychometric adequacy of the Spanish creative self-efficacy inventory in an Argentine university student population. Internal consistency estimates were acceptable overall and were broadly consistent with those reported in previous studies using the creative self-efficacy inventory (Abbott, 2010; Alotaibi, 2016; Michaeli Manee & Abkhiz, 2023). Consistent with Flores Puga (2020), we found acceptable fit indices for the seven-factor model of the Spanish creative self-efficacy inventory. Confirmatory factor analyses of the thinking and performance dimensions also indicated acceptable fit for the thinking dimension, whereas the performance dimension showed weaker fit, particularly regarding RMSEA.

Evidence of convergent validity is provided by the high correlations observed between the creative self-efficacy scale (Tierney & Farmer, 2002) and creative thinking self-efficacy scale, creative performance self-efficacy scale, and the total Spanish creative self-efficacy inventory. These findings mirror those reported by Abbott (2010) and Flores Puga (2020), who also found strong associations among different measures of creative self-efficacy. Specifically, Abbott (2010) reported correlations between beliefs in creative self-efficacy (Beghetto, 2006) and creative performance self-efficacy (r = .69) and creative thinking self-efficacy (r = .53). In Flores Puga's (2020) study, creative self-efficacy showed strong correlations with fluency, flexibility, originality, and personality (r = .66, .60, .65, and .59, respectively; $p < .001$) and moderate correlations with elaboration, domain, and field (r = .45, .44, and .42, respectively; $p < .001$).

Consistent with Pretz and McCollum (2014), our findings indicate that self-reports of past creative achievements are associated with creative self-efficacy. Moderate relationships were found between self-efficacy and creative achievements in the domains of everyday creativity and social participation, whereas correlations with music, science and technology, scenic arts, and literature were comparatively low. These findings suggest that creative self-efficacy may be more closely linked to everyday and social forms of creativity than to domains requiring more specific knowledge or technical skill. This interpretation is consistent with Silvia et al. (2009), who found that everyday creativity showed the strongest relationships with self-efficacy and other creativity measures. Our findings are also aligned with Lebuda et al. (2021), who reported that creative self-concept, including creative self-efficacy and creative personal identity, predicted creative activity in everyday, artistic, and scientific domains, with particularly robust effects in everyday creativity.

The observed relationships between creative self-efficacy and creative personality further support the convergent validity of the Spanish creative self-efficacy inventory. Previous studies have also documented correlations between the creative personality scale and various measures of creativity (Batey & Furnham, 2008; Carson et al., 2005; Dollinger et al., 2005; McCrae, 1987; Wolfradt & Pretz, 2001; Sánchez-Ruiz et al., 2011). The creative personality scale includes items related to openness to experience and breadth of interests, both of which are indicators of this personality trait. Openness to experience has been shown in numerous studies to correlate significantly with measures of creativity in general and specifically with creative self-efficacy (Abbott, 2010; Karwowski et al., 2013; Karwowski & Lebuda, 2016; Lebuda et al., 2021).

The observed relationships between thinking styles and self-efficacy are also consistent with those reported by Flores Puga (2020) in Spanish students. In that study, divergent thinking style correlated with all seven dimensions of the Spanish creative self-efficacy inventory, with personality showing the strongest association ($r = .66$, $p < .001$) and domain the weakest ($r = .36$, $p < .001$). Given the evidence reported by the authors of EDICOS concerning the relationships among divergent thinking styles, cognitive strategies for creativity, and openness to experience (Soroa et al., 2015), the associations observed here between the Spanish creative self-efficacy inventory and thinking styles provide additional evidence of convergent validity. Particularly noteworthy are the moderate correlations between convergent thinking and everyday creativity. Overall, these findings reinforce the view that creativity is a complex construct involving interrelations between divergent and convergent thinking.

The results of the current study should be considered in relation to previous research on creative self-efficacy in Argentine populations (Aranguren et al., 2011; Aranguren & Irrazábal, 2012). These previous studies reported significant but weak correlations between creative self-efficacy, creative personality, and creative performance specifically within entrepreneurial contexts. In contrast, the present study found moderate correlations between these variables in the context of everyday creativity.

Overall, the analyses suggest moderate relationships among the constructs assessed. Similar findings have been reported in studies integrating self-reported measures of creative self-efficacy, creative performance, and creative personality. Previous research has linked higher levels of creative self-efficacy with enhanced creative achievement in occupational

settings (Tierney & Farmer, 2002) and educational contexts (Fang & Chang, 2023), as well as with personality traits associated with openness to experience (Karwowski & Lebuda, 2016). The meta-analysis by Haase et al. (2018) likewise reported moderate correlations among self-reported measures of creative self-efficacy and between these measures and creative performance in different settings. Consistent with this pattern, the present study found moderate correlations between total creative actions scale scores and all creativity measures used, including creative thinking self-efficacy scale, creative performance self-efficacy scale, Spanish creative self-efficacy inventory, EDICOS, and creative personality scale.

With respect to sex differences, the results are broadly consistent with previous studies reporting slightly higher levels of creative self-efficacy among males (Beghetto, 2006; He & Wong, 2021; Karwowski, 2011). According to Karwowski (2011), males may be more likely to rate their creativity highly, whereas females may underestimate their creative capacities. In the present study, males scored significantly higher on the convergent thinking style subscale and in the science and technology domain of the creative actions scale, whereas females scored significantly higher in plastic arts and crafts and scenic arts. These findings are consistent with previous studies showing higher male scores in science and technology and higher female scores in artistic domains (Elisondo, 2021; Hyeon Paek & Runco, 2017; Miroshnik et al., 2022). Similarly, Elisondo et al. (2022) reported that females reported higher scores in arts and crafts, scenic arts, and everyday creativity, whereas males scored higher in music, science, and technology. Nevertheless, the observed effect sizes in the present study were generally small, and the markedly unequal group sizes warrant cautious interpretation. Overall, these findings are consistent with the meta-analytic evidence reported by Beghetto et al. (2011) and Taylor et al. (2024), which indicates minimal overall sex differences with some domain-specific variation.

7. Study limitations and future research

While this study contributes to cross-cultural creativity research, several limitations should be acknowledged. First, the reliance on a relatively homogeneous sample of university students restricts the generalizability of the findings to broader populations, including non-student adults and individuals from diverse socioeconomic backgrounds. Second, the comparatively small number of male participants made sex-group comparisons less balanced; accordingly, these findings should be interpreted with caution. Future research should adopt more stratified sampling strategies to include participants across age groups, professions, and cultural contexts. In addition, future studies could employ more advanced statistical techniques and incorporate additional variables, such as cultural values or growth mindset, to deepen understanding of creative self-efficacy and its manifestations across contexts.

8. Conclusions

This study supports the psychometric adequacy of the Spanish creative self-efficacy inventory in an Argentine university population and provides evidence for its seven-factor structure. The observed correlations between the Spanish creative self-efficacy inventory and global creative self-efficacy (Tierney & Farmer, 2002), creative personality (Freiberg Hoffmann et al.,

2019), domain-specific creative actions (Elisondo, 2021), and EDICOS indicate that the instrument captures both cognitive and contextual dimensions of creativity. The findings also contribute to the literature on the relationships among self-efficacy, creative actions, thinking styles, and personality, as well as to the discussion of sex-related differences in creative self-perceptions and creative engagement. Overall, the availability of an adapted version of the Spanish creative self-efficacy inventory may facilitate the assessment of creative self-efficacy in educational and organizational settings and support the design of interventions aimed at strengthening creative self-efficacy, creative performance, and creative action.

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