Creative Self-Beliefs of Civilian and Military School Students

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Abstract
Creative Self-Efficacy (CSE) and Creative Personal Identity (CPI) are creative self-beliefs which act as creative achievement predictors in different contexts, including school. Brazilian theoretical studies suggest that characteristics of military school can inhibit creative expression. The question is raised whether the school environment can influence CSE and CPI. Therefore, the goal was to compare male and female students from military and civilian schools, in terms of CSE and IPC, in addition to verifying the interaction between the variables. Participants were 230 secondary school students, with a mean age of 16.07 years (*SD* = .92). The Short Scale of Creative Self (SSCS) and a sociodemographic questionnaire were used. No significant differences or interactions were observed, except for the higher IPC in women when compared to men. Thus, it is possible that the typical restrictions of the military model of education do not necessarily imply barriers to creativity.
Keywords: creativity, self-beliefs, self, military school, student.

Crenças do Self Criativo de Estudantes de Escolas Civis e Militares

Resumo
Autoeficácia Criativa (AEC) e Identidade Pessoal Criativa (IPC) são crenças do *self* criativo que atuam como preditoras da realização criativa em diversos contextos, inclusive escolar. Estudos teóricos brasileiros sugerem que as características da escola militar podem inibir a expressão criativa. Questiona-se como AEC e IPC podem ser influenciadas pelo ambiente escolar. Portanto, o objetivo deste estudo foi comparar estudantes de escolas militares e civis, do sexo masculino e feminino, quanto à AEC e IPC, além de verificar possível interação entre as variáveis. Participaram 230 estudantes do ensino médio, com idade média de 16,07 anos (*DP* = 0,92). Utilizou-se a Escala Breve do Self Criativo (EBSC) e um questionário sociodemográfico. Não foram observadas diferenças ou interações significativas entre os grupos, exceto pela IPC superior nas mulheres, quando comparadas aos homens. Nesse sentido, é possível que as restrições típicas do modelo militar de educação não impliquem necessariamente barreiras à criatividade.
Palavras-chave: criatividade, crenças, self, escola militar, estudante.

Creencias del Self Creativo de Estudiantes de Escuelas Civiles y Militares

Resumen
La Autoeficacia Creativa (AEC) y la Identidad Personal Creativa (IPC) son creencias del *self* creativo que actúan como predictores del logro creativo en diferentes contextos, incluyendo el escolar. Estudios teóricos brasileños sugieren que las características de las escuelas militares pueden inhibir la expresión creativa. Se cuestiona si el entorno escolar puede influir en la AEC y la IPC. Por lo tanto, el objetivo de este estudio fue comparar alumnos y alumnas de escuelas militares y civiles, en términos de AEC y IPC, además de verificar la interacción entre las variables. Participaron 230 estudiantes de secundaria de escuelas públicas, con una edad promedia de 16,07 años (*DS* = 0,92). Se utilizó la escala *Short Scale of Creative Self (SSCS)* y un cuestionario sociodemográfico. No se observaron diferencias o interacciones significativas entre los grupos, excepto por una IPC superior en mujeres en comparación con los hombres. Es posible que las restricciones típicas del modelo educativo militar no necesariamente impliquen barreras para la creatividad.
Palabras clave: creatividad, autocreencias, escuela militar, estudiante.

Creative Self-Beliefs of Civilian and Military School Students

It is acknowledged that school has an important role in stimulating students' creativity, especially by valuing and stimulating personal characteristics associated with thinking and creative personality, such as independence of thought, tolerance of ambiguity, flexibility, imagination, openness to novelty and persistence (Beghetto, 2019; Fleith & Morais, 2017; Wechsler et al., 2018). In addition, the school can contribute to the promotion of its students' creative abilities in several ways, among which the following stand out: building a baggage of knowledge (Sternberg, 2015), organizing a curriculum that allows the use of imagination and fantasy (Carvalho et al., 2021), making the physical space of the classroom more flexible (Fan & Cai, 2022; Richardson & Mishra, 2017), encouraging

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a good relationship between teacher and student (Fleith, 2019; Patston et al., 2018), balancing rules and autonomy (Gralewski, 2019), providing continuous and constructive feedback (Fleith & Morais, 2017) and ensuring an environment of psychological safety in the face of error (Carvalho et al., 2021).

Considering the dynamism and challenges of contemporary society, marked by globalization, technological advancement, health and climate crises and urban mobility, it is urgent to analyze the role of different types of schools in relation to students' creative development. For example, the question is raised to what extent the organizational and pedagogical structures of military schools, traditionally inspired by hierarchy and discipline, interfere with their students' creative thinking. These schools have austere rules of behavior, detailed standardization of individual presentation and dress, and an organized list of sanctions attributed to conduct that is perceived as negative. It is known, however, that skills and values are also valued in these school environments, such as patriotism, civility, honesty, readiness, initiative, conscious discipline, equality, respect for freedom, tolerance, pluralism, enthusiasm, responsibility, love of truth, mutual respect, esprit de corps and camaraderie (Polícia Militar de Santa Catarina, 2017; Polícia Militar do Distrito Federal, 2020; Polícia Militar do Estado de Goiás, 2017).

Scholars highlight non-cognitive qualities of students stressed in militarized pedagogical models, such as discipline, hierarchy, cooperation, hygiene, and group values (Hajjar, 2005; Price, 2008; Vego, 2013). On the other hand, this model is subject to criticism, highlighting damages to the student's critical sense, arising from a culture of fear (Calbino et al., 2019; Lacé et al., 2019; Soares et al., 2019). Pezzi et al. (2016) argues that, throughout history, Brazilian public school has presented successive demonstrations of school failure, especially with regard to proficiency and failures. In this sense, in many Brazilian states, the militarization of public schools is seen as a solution to the difficulty to offer quality education to the neediest portions of the population. The rigid discipline and hierarchy of this system are used as assumptions for the argument that the model can contribute to the improvement of these young people's academic performance and, consequently, expand their possibilities in the face of the competitiveness of the labor market (Benevides & Soares, 2020).

It is known that military education is not restricted to discipline and hierarchy. Some of its characteristics may contribute to creativity, such as teaching for uncertainty, responsibility, initiative and mutual respect (Alencar et al., 2018; Moreira, 2001). It is important to note that these characteristics are not exclusive to military schools, and can be observed in civilian schools. Given this controversy, it is essential to understand the influence of these environments on the students' development, especially of creativity.

Over the past two decades, psychological research has paid particular attention to specific factors underlying creativity, called creative self-beliefs. These beliefs are related to the individuals' perception of their own creative ability to solve problems and can influence their decision-making and the value these subjects attribute to creativity (Beghetto & Karwowski, 2017; Ginns et al., 2023, Karwowski et al., 2019; Kaufman, 2019). In addition, the creative self-beliefs are intervening factors in the relationship between creative potential and behavior, in the sense that, even if an individual simultaneously has high creative potential and confidence in this potential, for the creative act to take place, the individual needs to perceive value in acting creatively (Beghetto & Karwowski, 2023; Karwowski & Beghetto, 2019). This valuation occurs when subjects perceive themselves as creative or identify in the creative act a justifiable effort (Beghetto & Karwowski, 2017; Dollinger & Dollinger, 2017; Karwowski et al., 2019). For example, if people do not trust their own creative ability, do not value or do not identify personally with a certain action, even though they have high creative potential, they may decide not to express this behavior. In this sense, according to Karwowski and Beghetto (2019), the manifestation of creative behavior is guaranteed not only by the creative potential, as the accomplishment of this potential is the result of individuals' intentional actions, largely influenced by their belief systems.

There are several creative self-beliefs, but studies involving creative personal identity (CPI) and creative self-efficacy (CSE) stand out, these being the two most researched in the last decade (Haase et al., 2018; Karwowski & Lebuda, 2016; Unal & Tasar, 2021). CPI involves the feeling that creativity is a significant element of the individual's self-description, as well as the value the subject attributes to creativity (Barbot & Heuser, 2017; Plucker et al., 2019). This belief is of help in the organization and integration of creative experiences. This occurs by supporting the creative potential based on the consolidation of a sense of competence, which may involve, for example, openness

to new experiences (Snyder et al., 2020). Therefore, the autonomous decision to engage in a given creative task strongly depends on CPI beliefs. This belief is a predictor of creative performance and, if individuals do not recognize their creativity, the creative potential tends not to manifest, even when potential and confidence are at high levels (Karwowski et al., 2019). CSE, on the other hand, is a person's confidence in their own ability to face challenges that demand creativity and is subject to a series of sociocognitive and environmental influences, including physiological state, previous performance, persuasion and physical characteristics of the environment, for example (Puente-Díaz & Cavazos-Arroyo, 2017).

In the literature review, no studies on CPI were found. A similar scenario was observed in relation to CSE, with only two published scientific articles related to the construct (Costa et al., 2021; Magali et al., 2021), both in the organizational and work context. The search was undertaken in the CAPES, Web of Science and Google Scholar portals using the following English and Portuguese descriptors: creativ* AND [self-efficacy OR identity OR metacognition OR self-beliefs] AND [militar* OR police*]; e criativ* AND [autoeficácia OR identidade OR metacognição] AND [militar* OR policia*], considering publications in the last 20 years. In relation to the international literature, research was located that investigates CSE and CPI focusing on adolescents or young adults.

For example, Karwowski et al. (2013) investigated the relationship of creative self-efficacy and creative personal identity beliefs with the big five personality traits, seeking to identify possible gender differences. The participants were 2,674 Poles (49.6% women) ranging in age from 15 to 59 years (M = 32.3; SD = 10.7). To measure the creative self-efficacy and creative personal identity beliefs, the Short Scale of Creative Self was used (Karwowski et al., 2013), while personality traits were assessed using the 10-item short version of the Big-Five Inventory (Rammstedt & John, 2007). The structural equation model used indicated that 23% and 21% of the variances in creative self-efficacy and creative personal identity, respectively, came from personality factors. Only among women was creative self-efficacy positively related to extraversion and negatively associated with agreeableness. Creative personal identity was negatively related to agreeableness only among women. Only among men was creative personal identity positively related to conscientiousness. The factors that were not associated with gender were openness to experience, conscientiousness, and neuroticism. The authors raise the hypothesis that these results indicate the existence of "gender-specific mechanisms" (p. 228) for the two creative beliefs evaluated.

He and Wong (2021) conducted a study that investigated gender differences in the CSE of 398 undergraduate students in Hong Kong (49.5% female), ranging in age from 18 to 24 years (MA = 21.5; SD = 1.83). The Short Scale of Creative Self (Karwowski et al., 2018) was used. The results indicated male superiority in the indices of this construct, which is consistent with the results Karwowski et al. (2013) found. Karwowski and Barbot (2016) suggest that the "male-hubris-female-humility-effect" (p. 310) may explain eventual male superiority in the CSE results, as men tend to express overestimated expectations regarding future performances, while the opposite occurs with women.

Hashim et al. (2022) examined gender differences in creative self-efficacy, creative ability, and creative environment dimensions among lower secondary school students. A self-report creativity level questionnaire was used in the study. The results indicated no significant gender differences with respect to creative self-efficacy and creative ability. However, variations were noticed when the participants evaluated the creative environment, with females valuing the surrounding, organization and learning setting (e.g., guidance, freedom of choice) and males emphasizing engaging in activities. Hora et al. (2022) conducted a meta-analytic study aiming to examine gender differences in creative performance. They analyzed 259 studies and found an advantage in favor of men. According to the authors, the gender gap is contingent on several social and cultural factors (e.g., gender roles and stereotypes).

Based on a crossed longitudinal and sequential design, Karwowski (2016) investigated the development of CSE and CPI beliefs over time. A total of 976 Poles aged from 15 to 60 years participated, who answered the Short Scale of Creative Self (Karwowski et al., 2013). The results showed that these beliefs are stable in the short term (six months), although significant changes are observed after 20 months. There is evidence of an increase in the indices of both constructs in the passage from late adolescence to early adulthood. A drop in CPI was observed in all other age groups evaluated, except between 15 and 24 years, where a significant increase was observed.

In this sense, the question is raised to what extent the creative self-beliefs are stimulated or inhibited in military and civilian basic education environments? In

addition, to what extent is what is proclaimed in relation to military schools a fact or the result of prejudices and stereotypes? Therefore, the aim of the study was to compare the Creative Personal Identity and Creative Self-Efficacy of secondary school students, male and female and from civilian and military schools, as well as to investigate the interaction between these two creative beliefs and the variables type of school (civilian and military) and sex (female and male). It is expected that this study will draw attention to the importance of developing creativity in educational contexts, assisting civilian and military schools in promoting self-beliefs in favor of creativity.

Method

Participants

A total of 230 Brazilian secondary school students participated, 67 (29.13%) enrolled in two civilian public schools in the Federal District and 163 (70.87%) from two military schools linked to state-owned military institutions. The students' age ranged from 13 to 19 years (M = 16.07 and SD = .92), the majority being female (n = 151; 65.7%). Of the civil school participants, 48 (20.87%) were female and 19 (8.26%) male, with an average age of 16.15 (SD = 1.08) and 48.2% had parents with a higher education level. As for the military school students, 103 (44.78%) were female and 60 (26.09%) were male, with an average age of 16.07 years (SD = .86) and 87.5% had parents with higher education. A non-probabilistic sample was used.

Instruments

Two instruments were used, namely a sociodemographic questionnaire with questions related to age, gender, school year, type of school (civilian or military) and level of education of parents; and the Escala Breve de Self Criativo (EBSC; Jorge et al., in press), adapted for Brazilian high school students from the Short Scale of Creative Self (SSCS; Karwowski et al., 2018). The Brazilian version of this scale assesses the dimensions Creative Personal Identity (CPI), with five items, and Creative Self-Efficacy (CSE), with three items.

Creative Personal Identity refers to the "extent to which creativity is treated as an important part of an individual's identity" (Karwowski et al., 2018, p. 46). Creative self-efficacy is defined as a person's perceived confidence to creatively execute a given creative challenge (Beghetto & Karwowski, 2020; Ginns, 2023; Karwowski et al., 2019). Examples of items to access creative self-efficacy include "I know I can efficiently solve even complicated problems" and "Many times, I have proved that I can cope with difficult situations". Regarding Creative Personal Identity, these are examples "I think I am a creative person" and "My creativity is important for who I am". Items are answered on a 5-point Likert scale, which ranges from *definitely not* to *definitely yes*.

Jorge et al. (in press) investigated the psychometric properties of the EBSC based on an analysis involving 253 Brazilian secondary school students, from civil and military schools, ranging in age from 13 to 19 years (M = 16.7 and SD = .92), the majority being female (169; 66.8%) and coming from military schools (168; 66.4%). The EBSC presented good fit of the data (KMO = .821) and the parallel analysis showed that the two-factor solution explained 72.46% of the sample variance. The Composite Reliability Index (ICC) proved to be ideal (.92), including for CSE (.78) and CPI (.90), as well as the Cronbach's alpha index (.84), even for the dimensions CSE (.71) and CPI (.88), indicating the high internal consistency of the EBSC. In addition, the instrument's adjustment indices also remained adequate ($\chi 2/gl$ = 1.97; $RMSEA$ = .062; confidence interval of $RMSEA$ between .011 and .0832; CFI = .992; TLI = .984).

The item-factor relationships varied between .60 and .94, with no cross-loadings greater than .30. The only moderate correlation between the factors (r = .46), associated with the high factor loadings, indicate the relative independence between the dimensions and the high test power. The Multigroup Confirmatory Factor Analysis for the subsamples, defined based on the type of school (civilian and military) and sex (female and male) demonstrated the invariance of the EBSC between these groups ($\Delta IFC < .010$, accompanied by $\Delta RMSEA < .015$ and $\Delta SRMR < .03$; Wang & Wang, 2020), ensuring that the instrument is fit to compare CPI and CSE of Brazilian male and female secondary school students from military and civilian schools.

Procedures

Initially, the research project was submitted to a research ethics committee. After its approval, civilian and military schools were contacted to present the project and invite them to participate in the research. Data collection was carried out virtually, through an online platform (Google Form), after authorization from schools and those responsible for children under 18 years of age, by signing the free and informed

consent form, in addition to the agreement of the participants themselves by signing the free and informed assent form.

Data analysis

Data analysis was performed using univariate analysis of variance (ANOVA; Harrison et al., 2021) through SPSS software, version 28.0 (Harrison et al., 2021). The normality of the data was evaluated using the Kolmogorov-Smirnov and Shapiro-Wilk tests and the assumption of homogeneity of variance by the Levene test (Mishra et al., 2019). To obtain a higher reliability of the results, to correct deviations from normality of the sample distribution and differences between group sizes and also to present a 95% confidence interval for the differences of means, bootstrapping procedures were performed (Dwivedi et al., 2017).

Results

For the study population, the Kolmogorov-Smirnov and Shapiro-Wilk tests (Wang & Wang, 2020) signaled that the variables Creative Personal Identity and Creative Self-Efficacy present indicators of violations of the assumption of normality. Therefore, resampling techniques by bootstrapping were used (Dwivedi et al., 2017). Levene test confirmed the assumption of homogeneity of variance in the results. Table 1 presents the descriptive statistical results for all independent and dependent variables in this study.

The ANOVA results pointed out that, for Creative Personal Identity, the difference between students from civilian (M = 3.88; SD = .79) and military (M = 3.88; SD = .90) schools was not statistically significant, F (1, 226) = .085, p = .771, $\eta^2 < .001$. When comparing male and female participants in relation to Creative Personal Identity, however, the results showed a significant difference between the subsamples, F (1, 226) = 4.082, p = .045, η^2 = .018. The female students (M = 3.97; SD = .83) had a higher average compared to the male students (M = 3.71; SD = .92; see Table 2). Regarding self-efficacy, no significant differences were observed between students from civilian and military schools, F (1, 226) = .057, p = .811, $\eta^2 < .001$, nor between male and female participants, F (1, 226) = 2.933, p = .088, η^2= .013.

What the interaction between type of school (civilian or military) and sex (female and male) is concerned, among all the possible interactions for Creative Personal Identity and Creative Self-Efficacy, no significant results were observed, as can be seen in Table 3. Thus, the results suggest that Creative Personal Identity and Creative Self-Efficacy are independent of school type and sex.

Discussion

Creativity is undoubtedly essential for the cultural, political and economic development of a society, to the extent of influencing individual psychological well-being (Fleith & Morais, 2017; Glăveanu et al., 2020; Sternberg, 2019). Characteristics such as confidence in one's own creative abilities and perceived creativity as an essential element of oneself are characteristics that

Table 1.
Mean and Standard Deviation of Students' CPI and CSE

Variables	CPI – *M* (*SD*)	CSE – *M* (*SD*)
Civilian (*n* = 67)	3.88 (.79)	3.68 (.83)
Female (*n* = 48)	3.97 (.79)	3.78 (.72)
Male (*n* = 19)	3.65 (.77)	3.40 (1.05)
Military (*n*= 163)	3.88 (.90)	3.63 (.74)
Female (*n* = 103)	3.97 (.85)	3.64 (.71)
Male (*n* = 60)	3.73 (.96)	3.61 (.81)
Total (*N* = 230)	3.88 (.87)	3.64 (.77)
Female (*n* = 151)	3.97 (.83)	3.69 (.71)
Male (*n* = 79)	3.71 (.92)	3.56 (.87)

Note. M = arithmetic mean; SD = standard deviation; n = number of participants.

Table 2.
ANOVA Test Results

Variables		*gl*	*F*	*p*	η^2	Lower Limit	Upper Limit
CSE	Type of school	(1, 226)	.057	.811	.000	-.254	.338
	Sex	(1, 226)	2.933	.088	.013	-.073	.498
CPI	Type of school	(1, 226)	.085	.771	.000	-.191	.296
	Sex	(1, 226)	4.082*	.045	.018	.007	.546

Note. The results are based on 1000 bootstrap samples and a 95% confidence interval. *F* = ANOVA test score; *gl* = degrees of freedom; *p* = significance; η^2 = effect size.

* Significant for $p < 0.05$.

Table 3.
Interaction Between Type of School and Sex for CSE and CPI

			CSE				CPI			
ME	CV		*DAM*	*p*	LL	UL	*DAM*	*p*	LL	UL
CS	F	M	.381	.142	-.124	.861	.314	.122	-.096	.702
MS	F	M	.035	.771	-.218	.267	.239	.112	-.036	.535
F	CS	MS	.144	.242	-.102	.385	-.002	.988	-.260	.235
M	CS	MS	-.202	.429	-.724	.291	-.077	.696	-.496	.340

Note. The results are based on 1000 *bootstrap* samples and a 95% confidence interval. ME = main effect; CV = compared variables; CS = civilian schools; MS = military schools; F = female sex; m = male sex; *DAM* = difference of arithmetic means of the compared variables; *p* = significance; LL = lower limit; UL = upper limit.

contribute to healthy socioemotional development and that mark the personality of creative people (Karwowski et al., 2019; Kaufman, 2019).

Creative Self-Efficacy and Creative Personal Identity knowingly are not mere consequences of creative achievement, as they also act, respectively, as a mediator and moderator of the relationship between creative potential and behavior (Anderson & Haney, 2021; Chen, 2017; Karwowski & Beghetto, 2019; Liu et al., 2021). Although these two constructs are relatively stable (Beghetto & Karwowski, 2017; Karwowski et al., 2019), they are not immune to change. In this regard, late adolescence and early adulthood seem to be the period most susceptible to variations in Creative Self-Efficacy and Creative Personal Identity (Bodanese & Padilha, 2019). It should be noted that the school context particularly influences this stage, which can impose barriers or facilitate the creative development of students (Beghetto, 2019, 2021; Carvalho et al., 2021; Fleith & Morais, 2017).

When students from civilian and military schools were compared, the results did not reveal significant differences related to Creative Self-Efficacy and Creative Personal Identity. In the search for empirical support for the findings, no Brazilian or international research was found that investigated these two constructs in military or police institutions. The results suggest that the environmental differences between civilian and military schools did not necessarily imply variations in students' Creative Self-Efficacy and Creative Personal Identity. This raises doubts about the sometimes stereotyped discourse that highlights the negative role of military schools in certain aspects of student development (for example, Galaviz et al., 2011; Mendonça, 2020; Roseiro et al., 2020), especially those associated with creativity, such as autonomy, psychological safety in the face of error, and critical sense.

Thus, the differences between the civilian and military basic education environments, at least for the sample of this study, do not seem to have acted as determinants in the formation and consolidation of the creative confidence and perceived value of creativity of their students. The question is raised to what extent the

disciplinary and hierarchical rigidity of military schools would generate a climate unfavorable to creativity or psychological insecurity in the face of possible error. An analysis of the regulations of Brazilian military schools (for example, Polícia Militar de Santa Catarina, 2017; Polícia Militar do Distrito Federal, 2020; Polícia Militar do Estado de Goiás, 2017) does not clearly reveal whether the impact of these rules on the development of students' creativity would tend to be negative or positive.

No significant differences were found either related to Creative Self-Efficacy between female and male students. On the other hand, recent research indicates a trend of moderate male superiority related to this construct (Anderson & Haney, 2021; Du et al., 2020; He & Wong, 2021). According to Karwowski and Barbot (2016), the apparent male superiority reported in the literature may be associated with the effect they call "male-hubris-female-humility-effect" (p. 310) or the effect of male arrogance and female humility. The authors refer to men's proneness to overestimate their abilities in self-report assessments, accompanied by the opposite female tendency. This is consistent with the findings by He and Wong (2021), who report greater variance in the Creative Self-Efficacy results of men in relation to those of women, indicating, at the extremes, the tendency to oversize the creative confidence of men.

One possible explanation for the findings of this study is that, in the case of military school students, the internalization of the values of military institutions (merit, leadership, autonomy, etc.), as well as the pride of being part of a prestigious educational institution—recognized for its educational level of excellence and success of its students in educational exams—can contribute to the increase in the creative confidence of both men and women. It is important to emphasize that these findings may be limited due to the specific characteristics of the schools and samples studied, therefore, caution is required when generalizing these results. Future studies involving interviews or classroom observations may help to deepen the understanding of the relationship between creativity, gender and school environment. These methods can provide valuable insights into the experiences and perspectives of students, helping to shed light on the underlying mechanisms involving the development of creativity in educational settings. By conducting interviews, researchers can explore how military school students perceive and navigate the balance between discipline and creativity within their educational environment. Classroom observations, on the other hand, can provide valuable contextual information about the teaching methods, curriculum, and overall classroom dynamics that may influence creative expression.

Regarding Creative Personal Identity, female students had significantly higher scores than men, which contradicts findings from previous studies (e.g., Hora et al., 2022; Karwowski et al., 2013). In a study conducted by Nakano et al. (2021) regarding gender differences in creativity, 133 publications were analyzed. No consistency between study results was found. The findings indicated that 45.2% reported gender differences in favor of women, 23.28% in favor of men, and 31.5% oscillated according to the content evaluated. Nakano et al. recommend further studies about creativity and gender differences including other variables such as attitudes, motivation, and opportunities.

Considering that, among the two constructs investigated, Creative Personal Identity is the most stable, that is, the least susceptible to environmental influences (Beghetto & Karwowski, 2017; Karwowski et al., 2019), no differences between the genders were anticipated. Future research, involving especially qualitative designs can help uncover the influence of social and cultural factors on the development of Creative Personal Identity. By exploring the societal expectations, norms, and stereotypes that shape students' perceptions of creativity and personal identity, researchers can gain a more comprehensive understanding of the complex interplay between gender, societal influences, and Creative Personal Identity.

It is worth noting that, when testing the possible interactions between type of school and sex considering the dependent variables (Creative Self-Efficacy and Creative Personal Identity), no significant results were observed. It is suggested that, for the samples evaluated, the Creative Personal Identity and Creative Self-Efficacy of the students are independent of the type of school and sex. This result confronts the sometimes-stereotyped assumption that characteristics of the military learning environment limit or impede the students' development (Calbino et al., 2019; Lacé et al., 2019; Roseiro et al., 2020; Soares et al., 2019), particularly the development of creativity.

One difficulty found in this study was, in the face of the pandemic scenario, to gather a larger number of participants. Despite this, as previously described, the number of participants met minimum sampling criteria for all stages of the research, which mitigates this limitation. The uniqueness of this study in the Brazilian

and international scenario is one of its highlights. As previously reported, no Brazilian or international publication was found that investigated any of the creative self-beliefs of military school students. In addition, in Brazil, no other publication was found that investigated Creative Self-Efficacy or Creative Personal Identity beliefs in the educational context, regardless of the school level or the design adopted.

Limitations of the study are identified though, such as a small number of participating schools, imbalance between the number of students from civilian and military schools, as well as between the sample sizes of male and female individuals. In addition, the data were obtained through a self-reported scale, which may involve desirability in the answers provided. Three suggestions for future research are provided. Firstly, we suggest replicating this research in a larger number of civilian and military schools, as well as among male and female students, in order to verify if the inferences found are characteristics of the type of school and not of local idiosyncrasies. Second, we recommend investigating Creative Self-Beliefs in specific domains such as mathematics, science, languages, the arts, and sports. Finally, qualitative studies on Creative Self-Beliefs involving interviews with students and observation in the classroom, especially in the context of military schools, would enhance the understanding of these beliefs based on the voices and experiences of these young people.

The findings of this study reinforce the need to encourage creativity in the school context through: (a) guidance for the implementation of educational strategies aimed at valuing creativity in the school context; (b) awareness of teachers about the importance of creative confidence and perceived value of creativity for students' creative development; and (c) construction of curricula that foster the development of Creative Self-Beliefs.

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