

THE PERCEPTION OF CREATIVITY AMONG BRAZILIAN STUDENTS AND TEACHERS

Allan Waki de Oliveira ¹; Tatiana Oliveira de Carvalho ¹; Mariane Gama de Oliveira ¹; Isabel Cristina Camelo de Abreu ¹; Tatiana de Cássia Nakano ¹

ABSTRACT

Despite scientific advances in the understanding of creativity, there are still doubts in the definition of this construct by students and teachers. This study aimed to identify the perception of creativity in students (n=74) and teachers (n=24). The average age was 30.5 years, mostly women (70.41%), with higher education (75%), from the Southeast region (58%). The instrument used was an online questionnaire with open questions about the perception of creativity. Through content analysis, it was found that participants describe creativity through cognitive characteristics (fluency, flexibility, elaboration and originality), with teachers showing greater emphasis on the creative environment, while students believe that the person and the process are aspects that can stimulate the expression of creativity. The results are in line with others found in the literature, reinforcing the importance that creativity is inserted in the training of teachers and worked with students.

Keywords: creativity; education; content analysis

Percepción de la Creatividad en Alumnos y Profesores Brasileños

RESUMEN

A pesar de los avances científicos en la comprensión de la creatividad, aún hay dudas en la definición de este constructo por alumnos y profesores. Este estudio tuvo por objetivo identificar la percepción de la creatividad en alumnos (n=74) y profesores (n=24). El promedio de edad fue de 30,5 años, en mayoría mujeres (el 70,41%), de escolaridad con nivel universitario (el 75%), de la región Sudeste (el 58%). El instrumento utilizado fue un cuestionario online con preguntas abiertas sobre la percepción de la creatividad. Por intermedio del análisis de contenido, se verificó que los participantes describen la creatividad a través de características cognitivas (fluencia, flexibilidad, elaboración y originalidad), siendo que los profesores mostraron mayor énfasis al ambiente creativo, mientras alumnos creen que la persona y el proceso sean aspectos que pueden estimular la expresión de la creatividad. Los resultados se alinean con otros encontrados en la literatura, reforzando la importancia de que la creatividad sea inserida en la formación de los profesores y trabajada junto a los alumnos.

Palabras clave: creatividad; educación; análisis de contenido.

Percepção da criatividade em alunos e professores brasileiros

RESUMO

Apesar dos avanços científicos na compreensão da criatividade, ainda restam dúvidas na definição deste constructo por alunos e professores. Este estudo teve como objetivo identificar a percepção da criatividade em alunos (n=74) e professores (n=24). A média de idade foi de 30,5 anos, em sua maioria mulheres (70,41%), de escolaridade com nível superior (75%), da região Sudeste (58%). O instrumento utilizado foi um questionário *online* com perguntas abertas sobre a percepção da criatividade. Por meio da análise de conteúdo, verificou-se que os participantes descrevem a criatividade através de características cognitivas (fluência, flexibilidade, elaboração e originalidade), sendo que os professores mostraram maior ênfase ao ambiente criativo, enquanto alunos acreditam que a pessoa e o processo sejam aspectos que podem estimular a expressão da criatividade. Os resultados se alinham com outros encontrados na literatura, reforçando a importância de que a criatividade seja inserida na formação dos professores e trabalhada junto aos alunos.

Palavras-Chave: criatividade; educação; análise de conteúdo.

¹ Pontifícia Universidade de Campinas – Campinas – SP – Brazil; allan_w_oliveira@hotmail.com; tatiana@institutogeist.com.br; psicologamarianegama@gmail.com; isabelccabreu@gmail.com; tatiananakano@hotmail.com

INTRODUCTION

Creative is defined as a complex and multidimensional construct that involves the interaction between skill and the process by which an individual or group produces a product or result that is both new and useful for a given context (Plucker, Beghetto, & Daw, 2004). This characteristic is present in all individuals. However, it can manifest itself in different degrees and forms depending upon the conditions in the environment (Nakano, 2019). In particular, school has been emphasized as a valuable environment for the development of creativity (Morais et al., 2017). This study is focused on this context.

Recent trends in education have focused on confronting the challenges posed by globalization, thus drawing the attention of psychologists, researchers, and educators from various countries to the study of creativity in education. Therefore, a growing body of research has been conducted to promote creativity in the classroom (Cheung & Mok, 2018). With increased awareness of the benefits of creativity across all educational levels, schools no longer serve as mere information providers. Consequently, it has become a place that promotes the full development of each individual. In this context, teachers have become major agents of change (Al-Dababneh, Al-Zboon, & Ahmad, 2019).

However, the importance of stimulating creativity in the classroom has increased in recent years. Particularly in educational policies, such political reforms have had little impact on actual pedagogical practices in the classroom (Guo, Tong, & Pang, 2020). According to the authors, such a situation is understandable given the excessive emphasis placed on performance tests as well as the preference for well-behaved students. It has proved quite relevant to conduct more research on the teachers' conceptions of creativity and their role in students' creative development (Andiliou & Murphy, 2010).

When we consider that teachers are responsible for integrating and promoting creativity in the educational environments where they work, it is important to examine their vision of creativity. By providing appropriate conditions, information, knowledge, and skills (Saban & Özcan, 2020), creative expression is enhanced. In spite of this, the scenario illustrates a disconnect between teachers' understanding of creativity and its application in the classroom (Beghetto, 2005). In previous research, it has been demonstrated that teachers, in general, tend to act in a manner that discourages students from using their creativity, despite recognizing that creativity is an important characteristic (Langley, 2018). Accordingly, the author emphasizes that teachers' perceptions directly influence the perceptions of students.

As such, despite teachers' conviction of the importance of creativity, many of them do not feel responsible for fostering creativity, do not accurately comprehend what creativity is, or end up misjudging the

truly creative students. As a result, teachers have not proven to be able to recognize or develop the creative potential of their students (Gralewski & Karwowski, 2016), considering creativity to be a confusing concept that lacks depth in knowledge (Hana & Hacène, 2017).

In spite of such recognition of the importance of developing creativity in the educational context, Alencar (2007) has observed that myths and misunderstandings about creativity are still common among students and teachers. It is still widely believed that creativity is a synonym for intelligence (Brito, Vanzin, & Ulbricht, 2009) or innovation (Zhou, Wang, Song, & Wu, 2017), and it is possible to find comprehensions that reduce creativity to non-cognitive aspects, such as emotion or imagination (Oliveira & Lima, 2017; Silva, Silva, & Tuleski, 2012). Furthermore, there are perceptions, on the contrary, that place a strong emphasis on cognitive components of creativity (Karkowski, Gralewskib, Patstonc, Cropley, & Kaufman, 2020).

It has been demonstrated that perceptions of creativity are particularly important in the formation of teachers as well as their practice in basic education (Nuñez & Santos, 2012). The reason for this is that creativity can be stimulated or blocked depending on the beliefs and attitudes of teachers regarding the creativity construct (Beghetto, 2013). The relevance of creativity is based on the fact that it has been considered an essential feature for facing the challenges and dilemmas of current society (Lassig, 2019), thereby opening up the possibility of seeing problems and difficulties as opportunities (Beketayev & Runco, 2016). Also, creativity plays an essential role in the development of personal and intellectual abilities, the development of a positive self-concept, a positive self-esteem, social development, optimism, persistence in solving problems, empathy, motivation, and a sense of well-being (Al-Dababneh, Al'Zboon, & Ahmad, 2019).

Despite the emphasis on creativity in the classroom, teachers' perceptions of creative students have not changed significantly in the last 20 years, indicating that such students are perceived by teachers as having undesirable and negative behaviors in the classroom (Kettler, Lamb, Willerson, & Mullet, 2018). Due to the fact that both students and teachers benefit from the promotion of creativity in the classroom, a very important question arises: are teachers' conceptions of creativity accurate or incorrect? It is imperative to conduct research on this aspect in order to determine the best methods for incorporating creative activities into classrooms (Mullet, Willerson, Lamb, & Kettler, 2016).

In general, these professionals are unprepared to promote or identify creativity in the classroom, according to the authors. Professionals are frequently under pressure to ensure that students answer correctly rather than creatively. It is possible that this scenario explains the predominance of negative attitudes toward

the creativity of students (Kettler et al., 2018). Teachers generally do not have adequate knowledge of creativity and do not apply a creative approach to education, particularly due to excessively extensive curricula, overrated examinations, grades, and tests, short lesson lengths, and difficulties in using technology (Akyildiz & Çelik, 2020).

As a result, these professionals tend to associate the creativity construct with activities that require imagination, problem solving, invention, and intelligence. As a result, creative students are described as imaginative, artistic, independent, and curious. Furthermore, there is a focus on negative behaviors such as impulsivity, indiscipline, disruptive classroom behavior, excessive talking, stubbornness, excessive questioning, and critical thinking, as well as more resistance to conformity and adherence to school norms (Kettler et al., 2018). Similarly, research has demonstrated that teachers' conceptions of creativity have changed significantly, indicating that creativity is perceived as a non-exceptional skill that can be recognized and likely to develop independently of arts, music, or related activities (Cropley, Patston, Marrone, & Kaufman, 2019) or even from a comprehensive perspective that is not restricted to the arts. A more accurate description of it is one that involves development, learning, expression, and thought (Forno, Veiga, & Bahia, 2014).

The present study investigated the perceptions of creativity by teachers and students, considering that teachers' perceptions of creativity play an important role in the pedagogical practices that they adopt in order to stimulate student creativity in the classroom. In this study, the difference lies in the fact that the studies that are usually found in the scientific literature with the same objective generally evaluate the participants' conceptions by analyzing free content. Based on similarity, the answers were categorized using two theoretical models: Guilford's (1956) creative characteristics, amplified by Torrance (1966), and Rhodes' 4P model (Rhodes, 1961).

This perspective is supported by Kurt and Nalan (2018), who emphasize that understanding how educators perceive creativity, as well as examining whether those perceptions are in line with definitions of creativity presented in the literature, is an important tool for understanding how educators perceive creativity as a source of learning.

METHOD

Participants

The sample consisted of students from high school through postgraduate degrees and teachers without regard to their educational level. In total, there were 100 participants, 75,5% of whom were students and 24,5% were teachers, and the average age was 30.5 years. Among the participants, post-graduates (47%) and graduates (28%) comprised the majority of

educational levels. Participants from high schools (11%) and elementary schools (8%) were also included. The information was not provided by six participants.

The majority of teachers had post-graduate education (75%), followed by graduation (8%), and four participants did not provide this information. Among the students, college was the predominant educational level (39%), followed by post-graduation (34%), elementary school (13%), and high school (12%). Two participants did not provide that information.

Participants come from three Brazilian regions: the Southeast (n=61), the Northeast (n=23), and the South (n=15). One of the participants was Brazilian and lived in Portugal. In the sample, 70,41% of the participants were women.

Instrument

A questionnaire was developed by the authors. The survey contained open-ended questions regarding the perceptions of participants regarding creative students. In order to gain a deeper understanding of creativity and creative students, the following questions were asked: 1) "What is creativity in your opinion?" 2) "What is a creative student according to you?" and 3) "What conditions would make you more creative?". Please list at least five conditions." The second part of the instrument consisted of questions based on data provided by the participants (sex, city, age, academic training, etc.).

Procedures

Through the Survey Monkey online platform, data was gathered in a randomized manner, while informing the target public that this was an opinion research study, which followed all ethical procedures.

By means of social networks, the target public was provided with a link to the questionnaire, which could be answered over a period of 19 days. This gathering was conducted in accordance with the confidentiality of personal information, as well as the right to participate and to withdraw from the study at any time.

Data analysis

Based on Bardin (2016), a content analysis was conducted for the analysis of data using the following procedures: (i) Pre-analysis: reading of the open questions that were posed during the data collection process; (ii) Coding: unit selection (theme words related to creative characteristics) and ordination (presence); (iii) Categorization: classification of codified material and (iv) interpretation.

The categories that guided the classification, realized by the authors, involved two different models: the creative characteristics developed by Guilford (1956) and amplified by Torrance (1966) for the analysis of questions 1 and 2, and the 4P models (Rhodes, 1961) for the analysis of question 3. The following table provides a description of the categories that were used for the

analysis of answers by participants.

Each answer was read by the authors and classified into one of the categories presented in Figure 1, based on its most important concept. In each question, the frequency and percentage of occurrence for each category were estimated. In addition, a procedure known as word cloud was also utilized to facilitate the visualization of the most important words used by

participants for each question.

RESULTS

Question 1 (“what is creativity?”) was designed to obtain from participants their perception of their understanding of the concept of creativity. The majority of students’ and teachers’ responses demonstrated a connection between the concept and flexibility and

Figure 1. Categories used as the bases for analysis and description.

Model	Category	Description
Rhodes (1961)	Creative person	Includes personality traits, moods, cognitive skills, values, and personal characteristics (Alencar et al., 2010; Nakano & Wechsler, 2012)
	Creative Product	Specifies the characteristics of a product, identifies who will assess it, and ensures it is useful and applicable to the real world (David et al., 2011; Nakano & Wechsler, 2012; Runco & Jaeger, 2012; Wechsler, 2008)
	Creative Process	An understanding of the processes and strategies individuals use to generate and analyze ideas during the creative process (Alencar et al., 2010; Nakano & Wechsler, 2012)
	Creative Environment (Press)	External factors that promote or inhibit creative expression, especially if one takes into account the educational, social, and cultural influences (Ferreira & Candeias, 2007; Nogueira & Bahia, 2007)
Guilford (1956)	Fluency	Number of ideas
	Flexibility	The variety and diversity of responses
	Elaboration	Incorporation details into their ideas
	Originality	Ideas that are unusual or rare
Torrance (1966)	Expression of emotion	The expression of feelings and emotions
	Fantasy	The presence of imaginary beings, of fairy tales, and science fiction
	Uncommon Perspective	View from a non-traditional and different perspective
	Analogies and Metaphors	The search is for something that is similar to something previously noted but was unnoticed

Table 1. Perception of the Aspects of Creativity and the characteristics of creative people by teachers and students.

Question	Sample	Aspects				Characteristics of creative people (frequency)							
		Person	Process	Product	Press	Flu	Fle	Ela	Ori	Em	Fan	Up	An
1	T	-	-	-	-	1	14	0	8	2	2	3	0
	S	-	-	-	-	5	23	0	33	2	4	3	1
2	T	-	-	-	-	3	4	1	5	0	0	4	0
	S	-	-	-	-	12	17	2	19	3	1	3	2
3	T	12	14	0	15	-	-	-	-	-	-	-	-
	S	50	50	4	37	-	-	-	-	-	-	-	-

Note: T: Teacher; S: Student; Flu: Fluency; Fle: Flexibility; Ela: Elaboration; Ori: Originality; Em: Emotion; Fan: Fantasy; Up: Uncommon perspective; An: Analogies and Metaphors.

originality.

By using phrases such as: “Putting different ideas into perspective” or even “Repertoire of diverse possibilities for solving problems and flexibility for adapting the same possibilities”, the teachers defined creativity as a synonym for flexibility (n=14), that is, diversified ideas. Students (n=23) presented similar ideas: “Different ways to resolve situations” and “I believe they are different ideas, no matter whether they are good or not, and they lead people to view everyday life differently.”

The two groups have also demonstrated a great deal of originality in their responses, especially those provided by the students. The teachers (n=8) defined creativity as “Non-conventional solutions” or “A skill that culminates in something new, relevant, or valuable”. In the opinion of the students (n=33), it should be “the ability to invent new things”, “the ability to produce answers that are uncommon for the solution of problems”, and “being original”.

In this sense, it is important to highlight the fact that a representative number of answers (n=17) considered creativity to be a synonym for innovation, as illustrated by the following examples: “Capacity to find innovative answers,” “Creating something innovative”, “Developing innovative ideas.” This kind of mistake is present in the common sense. It is interesting to note that no participant mentioned the elaboration characteristic, regardless of the group, and only one student mentioned

analogies/metaphors.

In the analysis of answers to question 2 (“What do you consider to be a creative student?”), flexibility and originality were found to be rather frequent in both groups. In the opinion of the teachers (n=4), the flexibility of students can be visualized in the answers “It is a student that uses or connects different ways of looking at things” and “A student that seeks new alternatives”. For the students (n=17), examples of flexibility include: “It is the student who finds new ways to solve problems, and who sees beyond the general rule”, “Use different approaches to learning to improve learning”, and “It is the student who recognizes new possibilities for learning and action.”

The teachers (n=5) expressed this idea regarding originality in a variety of ways, including: “It is the one who attempts to break from the commonplace”, “It is the student who has ideas that are quite different from those of his or her peers”, “It is the student who seeks to solve problems by proposing new ideas, but which are suitable for the situation at hand”. The students (n=19) also indicated that originality is a representative characteristic of student creativity: “A student who proposes novel ideas, who innovates in assignments, texts, presentations, and other resources”, “Who expresses ideas in a peculiar way”, “Who suggests quick, original approaches to solving problems”, “It is a student who enjoys change without being clichéd or routine.”

Figure 2. Examples of answers within the 4 P model.

Category	Teachers	Students
Person	“Courage to try and keep on trying” “Capacity to handle mistakes” “Experimenting more” “Openness to experience” “Autonomy to decide”	“Feel less shame” “Be more spontaneous” “Have more self-confidence” “Less shyness” “Freedom of expression” “Proactivity”
Process	“Time” “Available and accessible materials” “Clear objectives” “More flexible routine” “More sleep hours”	“Greater organization” “Less procrastination” “Domain over technologies” “Not being bound by formalities and rules” “More opportunities” “Not having a routine” “More time”
Product		“Innovation” “Communication” “Agility”
Environment	“Financial stability” “Time to dedicate to personal projects” “Reading more on diverse topics” “Organizational environment” “More stimuli in the environment”	“an environment that leads more creativity” “More money” “Visiting cultural spaces” “More knowledge on other cultures”

Among the teachers, the uncommon perspective was also apparent in the responses (n=4): “It is a student who is capable of understanding situations from different perspectives”, “It is a student who is able to view the world from multiple perspectives”. There was also a fluency (n=12) among the students, present in the answers “Capable of presenting questions and solutions by using acquired knowledge”, “being practical and efficient”, “has great ideas”, “has varied ideas”.

It is noteworthy that among the teachers, there was no mention of characteristics related to the expression of emotion, fantasy, or analogies/metaphors. In contrast, the students provided a more diverse range of responses, while putting together all of the characteristics of a creative individual.

In question 3, “In what conditions would you be more creative?”? Among the teachers who responded to the question, more aspects related to the creative environment (n=15) and process (n=14) were mentioned. Students provided responses that focused more on the description of creative individuals (n=50) and the creative process (n=50). The smaller number of answers was related to the creative product in both groups. Figure 2 illustrates examples of answers.

Finally, the word cloud was generated, for each question, aiming at identifying most frequent words in the participants’ answers (Figure 3). The illustration 1 illustrates the frequency with which words appeared in the answers to questions 1, 2, and 3 (the larger the letters, the greater their frequency in the answers). In this case, we are focusing only on verbs, adjectives, and nouns (avoiding pronouns, articles, numbers, prepositions, conjunctions, adverbs, etc.). Due to the infinity of words mentioned, we are listing only the most frequently used words.

The most frequently mentioned words in the answers to question 1 (“What is creativity in your opinion?”) were “capacity” and “creating” (both with 11 mentions),

followed by “different” and “innovate” (both with 9 mentions). In question 2 (What is a creative student according to you?) the most frequently mentioned words were “student” (19 mentions), followed by “able” (14 mentions), “new” (12 mentions) and “ideas” (10 mentions). Answers to question 3 (“What conditions would make you more creative?”) were dominated by the words “have” (with 13 mentions), “ideas” (12 mentions), “knowledge” (10 mentions), and “mind” (9 mentions).

DISCUSSION

Research on the concept of creativity has been conducted in a variety of settings, including teachers, adolescents, students, intellectually gifted individuals, and adults (Delany, Cheung, Takahashi, & Cheung, 2019). Along with the scientific interest in the study of creativity, attention has been given to the qualities and skills that constitute the creativity construct, to the mental processes involved in creativity, as well as to the influence of socio-cultural factors. It is necessary to change the perception that creativity is an exclusive skill that is reserved for a few gifted individuals in order for it to be understood as an essential skill that is available to everyone (Corazza, 2016).

By attempting to identify the comprehension of creativity for teachers and students, the obtained results demonstrated that, when responses were considered within creative characteristics, both groups placed greater emphasis on those related to the cognitive aspects of the creativity construct (particularly flexibility and originality). In this context, flexibility is defined as the ability to present a variety of answers. When faced with ambiguous or poorly structured problems, individuals with mental flexibility are more likely to generate creative ideas (He et al., 2019).

This characteristic involves the extent to which individuals consider different perspectives by making use of a wider range of ideas, searching for comprehensive knowledge, identifying its associations, and utilizing

Figure 3. Word clouds for answers given to questions 1, 2 and 3 (respectively).



Note: Question 1: “What is creativity in your opinion?”; Question 2: “What is a creative student according to you?”; Question 3: “What conditions would make you more creative?”.

different strategies (Ou, Chen, Li, & Tang, 2017). In addition, this characteristic will lead to adaptive changes and to exploring alternative, varied routes (Wu & Koutstaal, 2020), and this is crucial to the realization of creative ideas. By comprehending flexibility as one of the definitions of creativity, the participants confirmed an adequate perception of the creativity construct, although limited to the comprehension of diversity, while disregarding other cognitive and emotional components of the creativity construct.

The concept of originality is understood as something new, rare, and unusual (Acar, Burnett, & Cabra, 2017). As one of the personality traits associated with creativity, this characteristic acts to stimulate creative performance (Andreas, Zech, Coyle, & Rindermann, 2016). Originality is considered a pre-requisite for creativity in the standard definition (Dumas & Runco, 2018). A significant problem with anchoring the definition of creativity onto this concept is that originality is always subject to judgement by others, so the understanding of a creative idea can vary depending on when and who judges it (Corazza, 2016).

It is important to emphasize that both groups share a mistaken understanding of creativity as a synonym for innovation. While creativity involves the ability to come up with new ideas, innovation involves putting these ideas into action in order to develop a new product, service, or way of doing something (Fadaee & Alzahrn, 2014). As a result, innovation should begin when ideas are generated and should end when ideas are implemented, although it is important to note that overlapping and distinction between concepts remain unclear in scientific literature (Acar et al., 2017). In general, creativity is considered to promote innovative activities, and a positive relationship has been found between the two constructs, especially at the individual level (Sarooghi, Libaers, & Burkemper, 2015).

According to the 4P model proposed by Rhodes (1961), the answers were considered in relation to the conditions that would facilitate or benefit creativity. Using such a model, creativity can be studied in terms of four essential characteristics: the creator, the product created, the creative process, and the environment that influences creativity (Jordanous, 2016). Using this model, we gain a better understanding of what creativity is, how we can be creative, and how we can stimulate creativity (Beghetto, Kaufman, & Baer, 2015). Considering these categories, the answers of the group of students were more related to people and creative processes. In the case of the teachers, the answers were related to the environment and the process.

Studies conducted in recent years recommend studying creativity from a perspective aimed at understanding how individuals develop creative ideas (Zhang & Bartol, 2010). This process involves identifying problems, conducting research, and codifying information

in order to generate ideas within a sequence of stages: preparation, incubation, illumination, and verification (Garcês, Pocinho, Jesus, & Viseu, 2016). In this process, creativity is described and explained qualitatively and quantitatively while considering stages and processes (David et al., 2011), including the evaluation of a person's operations and strategies during the creative process (Alencar, Fleith, & Bruno-Faria, 2010).

The study of creative individuals has focused on their personality characteristics (Garcês et al., 2016). They include the observable and underlying characteristics of individuals, which can be used to develop programs that promote creativity (Nakano, Zaia, & Oliveira, 2015). An assessment of the creativity construct has been based on fluency, flexibility, elaboration, and originality, as proposed by Guilford (1956). In addition to a good imagination, good esthetic taste, and talent in artistic areas (Hoop, Handel, Stoeger, Vialle, & Ziegler, 2016), there are other comprehensions such as independence, curiosity, an open mind, motivation, and persistence (Wechsler, 2008).

The environment includes a number of individual and contextual factors, such as culture, which affect creativity expression and can either be positive or negative. It has been argued by theorists that, while creativity is a universal phenomenon, its characteristics can differ based on the cultural context in which it is experienced (Delany et al., 2019), particularly when it consists of family, school, culture, and society (Ferreira & Candeias, 2007).

According to an analysis of word clouds, inaccurate perceptions of creativity have been overcome in educational environments today. As a result of analyzing them in conjunction with previously presented results, we are able to conclude, despite the fact that they provided individual responses, they still expressed a perception of creativity that is restricted. Among the participants of the study, there was no consensus regarding the notion that creativity is a natural talent, based on the results of the research works developed by Alencar (2007) with students and teachers over the past two decades.

The results indicate that creativity was not restricted to related arts or activities, which is in agreement with the findings of Cropley et al. (2019) in an international survey of teachers. The authors concluded that the implicit creeds of teachers did not reflect widespread myths and misconceptions concerning creativity. As a result, they perceived the phenomenon as one that can be taught and assessed within the curriculum of a school.

FINAL CONSIDERATIONS

Regarding the results found in this study, which aimed to understand the perception of students and teachers on creativity and the importance of the creativity construct in all realms, but with a special focus on the

school environment, the results were consistent with what is available in the literature. It is possible to confirm the relevance of better understanding this construct in order to be able to contribute to its development, starting in the classroom and then extending to other spheres of life.

Researchers have found that, at schools, teachers prefer students who exhibit behaviors that are contrary to creativity (Kettler et al., 2018). Thus, training and information can be used to change teachers' perceptions about the behaviors that are indicative of creativity. It is important to emphasize that such attitudes have existed for at least two decades. Consequently, they have a deep rootedness. It has been suggested by Mullet et al. (2016) that professional development may lead to more mature concepts of creativity that are closer to scientifically based definitions.

Several researchers have emphasized the importance of teachers' understanding of creativity in fostering creativity in the classroom (Al-Dababneh et al., 2019). Due to this, it was necessary for teachers to adopt realistic perceptions and positive attitudes, as there are some teachers who do not know what creativity really is and are unable to recognize a creative student (Gralewski & Karwowski, 2016).

As limitations of the study, we point out that the sample is based on convenience. The group is small and exhibits a disproportionate number of students and teachers, as well as a variety of regional, gender, and educational levels of participants and teachers. In light of these variables, new studies can be carried out on the perception of creativity in the educational context. By doing so, we will be able to gain a greater understanding of how these conceptions have evolved and which aspects need to be addressed more deeply during the formation of teachers and in the Brazilian school curriculum in order to establish a system that promotes the appreciation of creativity among all participants.

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