

The color of COVID-19: a creativity program to manage emotions during a pandemic

El color del COVID-19: un programa de creatividad para gestionar las emociones en una época de pandemia

Cor do Covid: um programa de criatividade para gerir as emoções numa época de pandemia

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Abstract

Museums can incorporate major events into their educational programs, such as the COVID-19 pandemic, which is currently affecting many aspects of society at the personal, family, school, and community levels. COVID-19 has become a subject of interest for people who are likely to profit from educational institutions. This includes the Museum of the University of Navarra, which has elected to transform the pandemic situation into an educational opportunity. To this end, it has developed a program dedicated to promoting creative and emotional intelligence in school children through art, entitled "256 colors, after Vik Muniz". This is a collaborative project involving 704 primary school children from 23 schools. The program uses creativity to encourage introspection that helps in emotional identification and management during the pandemic by looking for meaningful experiences as a method of promoting more significant learning. Creativity is enhanced through contextual synergies using real artworks from the Museum's own exhibitions, especially "256 colors, after Gerhard Richter" (2015) by the Brazilian artist Vik Muniz. The pandemic has forced the Museum to adapt the educational program for both in-person implementation at the Museum or virtually, in the classroom. In the latter case, the visit to the Vik Muniz exhibition was conducted virtually.

Keywords: *Meaningful experiences; Education in museums; Creativity; Collaborative learning; Emotional intelligence; COVID-19*

Resumen

Los museos pueden incorporar eventos destacados a su programación educativa, como es el caso de la pandemia COVID-19 que actualmente está afectando numerosos aspectos de la sociedad, tanto en aspectos personales, familiares, escolares y comunitarios. El COVID-19 se ha convertido en un centro de interés para las personas susceptible de ser aprovechado por las instituciones educativas. Entre ellas, el Museo Universidad de Navarra ha querido transformar la situación que esta pandemia genera en una oportunidad educativa. Para ello ha desarrollado el programa "256 colores, after Vik Muniz" con el principal objetivo de fomentar la inteligencia creativa y emocional en los escolares a través del arte. Se trata de un proyecto colaborativo en el que han participado 704 escolares de educación primaria de 23 centros educativos. La instrucción educativa programada

utiliza la creatividad para generar una introspección que ayuda a la identificación y gestión emocional en esta situación de pandemia, buscando la experiencia significativa como método para fomentar un aprendizaje más significativo. La creatividad se ha potenciado mediante sinergias contextuales con obras de arte reales de las exposiciones del propio Museo, especialmente con la obra “256 colors, after Gerhard Richter” (2015), del artista brasileño Vik Muniz. La realidad generada por el COVID-19 ha obligado al Museo a adaptarse para realizar el programa educativo en dos escenarios diferentes: modalidad presencial en el Museo o en el centro educativo. En este segundo caso la visita a la exposición del artista Vik Muniz se ha realizado de manera virtual.

Palabras clave: *Experiencias significativas; Educación en museos; Creatividad; Aprendizaje colaborativo; Inteligencia emocional; COVID-19*

Resumo

Os museus podem incorporar eventos excepcionais na sua programação educacional, como é o caso da pandemia de COVID-19 que está actualmente a afectar muitos aspectos da sociedade, tanto em aspectos pessoais, familiares, escolares e comunitários. O COVID-19 tornou-se um centro de interesse para as pessoas susceptíveis de serem aproveitadas pelas instituições de ensino. Entre eles, o Museu da Universidade de Navarra quis transformar a situação que esta pandemia gera numa oportunidade educacional. Para este efeito desenvolveu o programa “256 cores, depois de Vik Muniz” com o objectivo principal de promover a inteligência criativa e emocional nas crianças em idade escolar através da arte. Este é um projecto de colaboração no qual participaram 704 crianças de 23 escolas primárias. A instrução educacional programada usa a criatividade para gerar uma introspecção que ajuda na identificação e gestão emocional nesta situação pandémica, procurando a experiência significativa como um método para promover uma aprendizagem mais significativa. A criatividade foi reforçada através de sinergias contextuais com obras de arte reais das próprias exposições do Museu, especialmente com a obra “256 cores, depois de Gerhard Richter” (2015) do artista brasileiro Vik Muniz. A realidade gerada pelo COVID-19 forçou o Museu a adaptar-se a fim de realizar o programa educacional em dois cenários diferentes: a modalidade presencial no Museu ou no centro educacional. Neste segundo caso, a visita à exposição do artista Vik Muniz foi feita de uma forma virtual.

Palavras chave: *Experiências significativas; Educação em museus; Criatividade; Aprendizagem colaborativa; Inteligência emocional; COVID-19*

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1. Introduction

One of the main objectives of museums is to promote education and to provide meaningful experiences to visitors (Falk and Dierking, 1992; Hein, 1998, 2000, 2012; Hooper-Greenhill, 1998, 2005, 2007; Falk, 2009; Burnham and Kai-kee, 2011). The museum is therefore an experiential space in many ways (Rivière, 1989) for pedagogical innovations (Pastor, 2004; Hooper Greenhill, 2007; Filippoupoliti and Sylaiou, 2015; Kristinsdóttir, 2017). The Museum University of Navarra in Navarra, Spain, is a contemporary art museum inaugurated in January 2015, located at the heart of the university campus in Pamplona (Navarra). Given the importance of education in contemporary society for the present and future development of individuals, its purpose is to educate and innovate. As a university museum, education is one of its cornerstones, which is in line with its functions. In this regard, the Museum University of Navarra strives to help the public develop a more complete vision of reality in the world in which we live. To do so, it uses a diverse artistic program combining both the plastic and performing arts (the museum also has a theater). The pedagogical activities of the museum are aimed at creating a context of meaningful learning (Falk and Dierking, 1992) and a visual learning environment in which visitors can develop their own interpretive strategies and repertoires (Hooper-Greenhill, 2005; Yenawine, 2013).

In line with Pastor's reflections (2004, p. 44), the museum's educational programs focus specifically on the viewer's ability to observe and contemplate artworks by educating the gaze (Arnheim, 1969; Berger, 1972; Freedman 2003; Yenawine, 2013). Meaningful experiences that promote personal development, including significant life experiences (SLE) (Chawla 1998, 1999, 2001), can thus become lessons that last over time (Ausubel, 1976; Novak, 1977; Novak and Gowin, 1984; Hall, 1997).

Furthermore, the University of Navarra Museum was created as a powerful and

inclusive cultural engine intended to democratize contemporary art by using all possible educational avenues, including the setting and the learning that is at the disposal of any university. The university setting supports the assimilation of diverse individuals, fostering democratic coexistence with others, free of stereotypes and respectful of differences (Grau and García-Raga, 2017).

All the museum's educational activities are based on three main aspects:

- Critical thinking
- Interdisciplinarity
- Creativity

Creativity may be considered to be a skill that can be developed. It is present in all human beings and is a mark of our species, a quality that has facilitated our survival for thousands of years despite changes in the natural environment. It can also be considered a talent (Torrance, 1962) or an aptitude (Sternberg and O'Hara, 2005) that is closely associated with success in some (Sternberg, 1996). However, as with other skills or aptitudes (Gardner, 2001), it consists not only of knowledge but also of contextualized attitudes, skills, and abilities that require practical development (Esquivias, 2004; Pérez Alonso, 2009) for which education regarding emotions, affection, and values is key.

Training in creativity is intended to provide the necessary tools for the novel and innovative expression of oneself (Duckworth et al., 2012). In other words, it enables us to gain self-knowledge and an understanding of our genuine and unique personal relationships with others, society, and the world through creative work. Creativity, thus, allows us to create new paths, products and services, thoughts, ways of acting, decisions, and solutions to contemporary problems.

Numerous studies have highlighted the importance of creativity as a transversal skill that can play a fundamental role in the education of the future (Fasko, 2001). For example, creativity is associated with resilience, the ability to adapt to change, and the ability to adapt to changing contexts, such as those created by the COVID-19 pandemic.

At the University of Navarra Museum, the visitor is invited to contemplate the contemporary artwork not from a 'reverential' distance but from a dialogic and co-creative perspective, in which the underlying question is: "What are you offering me?" As the created artwork or product is presented to us as "a manifestation of the personality of the creating subject" (Mackinnon, 1977), the educational programs are designed for different audiences.

The signifying power of the objects exhibited in the museum has great potential for educating us in creativity. The objects create diverse meanings expressed through their contents and inspire techniques, shapes, and textures that trigger both disparate modes of thinking about concepts and their varied representations.

The educational potential of the museum is enhanced when visitors are invited to work on individual creativity in an integrated manner using a collaborative learning approach. Collaborative learning is a consolidated educational method that has been widely used by the educational community for several decades. It has many benefits, leading to increased motivation, participation, and efficacy (Kagan, 2013). The use of informal cooperative learning (the terms 'cooperative' and 'collaborative' are used interchangeably here) is recommended for greater efficacy in a non-school context when the duration of learning activity is reduced to a single learning session (Johnson and Johnson, 2008). When designing such programs, some elements of Díaz-Aguado's criteria (2018) should also be included:

- "Stimulating, face-to-face social interaction" that occurs in real time in the museum or in the classroom
- Positive interdependence and individual responsibility characteristic of school group member, and with members of other groups (as during a museum visit)
- Learning of skills and attitudes, and positive social interactions, such as emotional management and "caring"
- Public recognition
- Adaptation to diversity through cooperation

Collaborative work can be further enhanced through the synergy provided by creativity, that is, “collaborative creativity” (Vass, 2007), which enhances the effectiveness of the program contents. Group motivation is reinforced during collaborative creativity without sacrificing individual freedom, and group activity is self-regulated, with each member playing their role. Collaborative creativity is therefore more powerful than individual creativity as a socializing process. The educational program described below includes activities that require both collaborative and individual creativity.

2. Methodology

The methodology adopted is also considered innovative for its syncretism. The method derives, among others, partly from the “visual culture” established by Hooper-Greenhill (2005, p. 108), which considers the relationship between the object and the subject that contemplates it as the source of meaning. Hooper-Greenhill argues that the object can “speak to the eyes” and that “learning through visuals was more effective than learning through words” (Hooper-Greenhill, 2005, p. 14), and that “this focuses directly on the processes of interpretation and the ways in which objects acquire meaning” (Hooper-Greenhill, 2005, p. 108).

This method requires the use of “real objects” (Hooper-Greenhill 2005, p. 14) exhibited in a museum, since they provide greater experiential meaning. Such objects produce meaningful experiences as they “...can produce strong reactions and are imbued with meaning, sometimes in unexpected ways” (Hooper-Greenhill, 2005, p. 110).

Syncretism incorporates cooperative methodology (Díaz-Aguado, 2018) and creativity, which can be considered a methodology in itself, at least as it has been developed in the program presented below.

3. The educational program “256 colors, after Vik Muniz”

In May 2020, the Educational Department of the University of Navarra Museum designed a program based on the theories described above with the following educational objectives:

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- To provide meaningful learning experiences (Willis, 2017) by combining theory with practice
- To strengthen the contemplative experience by establishing a visual dialog between the visitor and the artwork, so as to enable a shift from a visual connection to an experiential connection
- To study the power of an artwork, and thereby facilitate the recognition of emotions and their management
- To develop creative intelligence through learning in specific situations and contexts
- To promote the museum as an inclusive environment based on respect for social norms in the context of COVID-19
- To understand the role of the individual and that of the group and their interactions in the education of care values

The “256 colors, after Vik Muniz” educational program was designed with the purpose of creating a double-scale collaborative reproduction in the museum’s educational area of “256 colors, after Gerhard Richter” (2015) based on the work of the Brazilian artist, Vik Muniz (São Paulo, 1961).

The program was designed for public and private primary school children (6–12 years old) as the target audience and adapted to the target group in line with the guidance proposed by Beard and Mounir (Falk, 2009, p. 46) regarding visitor motivation, as well as the educational and aesthetic components of the program. Inclusivity was an important consideration in designing the program; this enabled special educational institutions to participate. The program was designed as a collaborative learning project (Gokhale, 1995) in which participation played a decisive role, since, in accordance with Dewey’s theory of art as experience (1949), it was the students who were asked to create the artwork. The idea of a collaborative museum education project (Seligmann, 2005) was proposed by Filippoupoliti and Sylaiou (2015); an invitation was sent out to primary schools for participation in the project. Instruction was thus both inclusive and integrative; the participation of each individual with their own characteristics and differences was valued (Hooks, 1994), the goal was to provide meaningful experiences in the museum environment (Olds, 1990).

Due to the specific circumstances created by the COVID-19 pandemic, the museum program was designed for two possible implementation scenarios:

- Scenario 1. Activities would be conducted face-to-face: schoolchildren could carry out program activities at the museum. The program would include an on-site visit to the galleries and activities in the museum's educational workshops. Schoolchildren had to follow all the prevention measures in place for the COVID-19 pandemic, including the use of hydrogel, mask, social distancing; capacity in rooms was limited, and materials used were disinfected. Thus a "Safe Museum" concept was created to guarantee minimum risk of biological contagion.
- Scenario 2. Activities would be conducted remotely: schoolchildren would be barred from physically visiting the museum, but the museum educational area would be remotely connected to the classroom and a virtual visit to the museum's galleries would be arranged using an image stabilizer connected to a mobile device. A real-time connection would be established with the educational facility via the "Google Meet" software application. The school would project the visit carried out by the museum's educational staff in the classroom on a large screen; this would enable high-quality image-sound synergy. The students could ask questions or make suggestions, and the museum's educational staff would respond to these, who could, in turn, ask the students questions, and the teacher in the classroom would encourage them to answer. Museum staff could see the students through a webcam installed in the classroom computer. In Scenario 2, the two educational activities proposed by the program would take place in the educational facility itself after the virtual visit to the exhibitions. For this, the educational materials would be taken to the school after disinfecting it, and, once the program was completed, they were to be collected, sterilized again, and placed on the collaborative panel in the museum's educational area.

It should be noted that for Scenario 2, the museum's team would ensure that the timing was flexible to accommodate the different needs of each participating school. Therefore, the full program was often carried out in two sessions on different days.

The program was carried out in May 2020 for the start of the school year in September 2020–2021 in anticipation of the uncertainties due to the pandemic. To adequately carry out the various activities, especially the virtual visit (Scenario 2), the museum's educational team used the following resources: they learned how to use 'Google Meet' and 'Zoom' to conduct virtual meetings; an image stabilizer was acquired to provide high-quality connections with the schools in order to avoid any discomfort likely to be experienced by the students in the classroom by the movement of the mobile device. This required coordination with the school both in terms of materials and time. Likewise, the classroom had to be equipped with a computer, projector, and internet access to allow real-time communication with the museum.

For the scale reproduction of "256 colors, after Gerhard Richter", a 6.40-meter-long and 3.52-meter-high magnetic panel was placed on the main wall of the museum's educational area. One of the objectives of the project was to ensure the collaborative participation of the maximum number of schoolchildren so that, in addition to individual experience, group experience and the bonds of interdependence were evident, similar to coexistence in society. For this, the artwork was divided into 256 rectangular squares, each represented by a color. The material used was flexible magnetic plastic, which could be magnetically attached to the wall. Carpeting material was used to achieve the grainy texture that the artist Vik Muniz has given to his artwork; these were glued to each of the 256 magnetic squares. Tempera paint was used to color each square.

The program was scheduled to run between September 24 and December 21, 2020. The program was announced in May, mainly via email, in 150 educational facilities, and registration was opened.

3.1. Activities

All activities were designed to encourage participation and personal involvement in the creative process in its formal, material, and thematic aspects. The program comprised the following activities:

- Activity 1. Introduction: welcome, explanation of rules, discussion of the COVID-19 situation, and the emotions it has provoked
- Activity 2. Visit to the exhibition on Vik Muniz, an artist, and contemplation of his work "256 colors, after Gerhard Richter" (2015)
- Activity 3. Creation of a collaborative mural "The 256 colors of COVID-19": each student received a piece of the mural and had to choose the color that best represented the emotion that they were experiencing due to COVID-19. Each student was asked to paint the assigned carpet square in a single color, although as many mixtures could be used before the final color was achieved
- Activity 4. Creation of a story about COVID-19 using a fold-out booklet to be kept by each student as a record of all the activities carried out. This story should be related to their emotional experiences, including the importance of caring. The story could extend over time (past, present, and future) and cover various contextual situations (home, school, family, friends)
- Activity 5. Sharing of these experiences with others
- Activity 6. Farewell: recapitulation and management of emotions engendered by COVID-19

The aims of the activities described above have been outlined in the following paragraphs. The creative storywriting activity highlights the benefits of free expression (Freedman, 1998, p. 77; Lovgren and Karlsson, 1998, p. 91), which helps to develop a culture combining personal and community identity.

The development of a personal emotional vision and the construction of a collaborative emotional vision helped students empathize with the various emotional experiences summed up in a single color, which in turn, helped them to understand their emotions and how to manage them appropriately in the presence of the group.

The purpose of sharing the story was to create cognitive empathy for the changes caused by the COVID-19 pandemic by representating these changes in art.

3.2. The educator as facilitator

It is essential for the educator to assume a supervisory role of non-interference in the creative process to ensure that the creative activity is free of conditioning factors (Lovgren and Karlsson, 1998, p. 96). Thus, the educator or teacher was a facilitator of both collaborative and individual creative activities (Jeffrey, 2003), and did not intervene in the group's self-regulatory behavior unless there was a conflict.

During the visit to the Vik Muniz exhibition, the educator pointed out some artworks, such as *'Medusa Marinara'* (1997), *'Frankenstein'* (2004), or *'Classroom'* (2014), to teach students to recognize emotions so that they could experience the most significant emotions by viewing real objects.

The total duration of the programme, including the creation of the mural, the storywriting session, and the visit to the museum's collections to view the artworks, was two hours.

The program was designed to focus on the creative process (Hargreaves, 1991, p. 179); both individual participants and the participating school as a group could check their progress within the collaborative project so that each participant would feel: "I contribute a little, but together we can advance further." The program was also designed to focus attention on the final result so that each participant could feel that, "I contribute a little, my school advances a little more, and together we can finish the work." The objective was to assimilate the emotional effect of COVID-19 and to highlight the importance of caring that this has generated. Individual and social factors were combined, thus facilitating the mutual construction of meanings (Hargreaves, 1991, p. 188; Agirre, 2005) through the aesthetic experience by connecting the arts and their moral power with daily life and culture (Dewey, 1949, pp. 288 and 307), that is, by integrating the management of the world of emotions and care values.

4. Results

The program was opened by the facilitator of the museum's educational team, who commenced with a description of the current situation created by COVID-19

in general, giving specific examples of changes, moving from the general to the particular. He then focused on emotions, reviewing the main primary emotions and some secondary ones. He pointed out that we were emotional beings, that all emotions were desirable, and that we should learn how to properly manage and control them. Finally, he explained the concept of value and gave examples of care values in line with Caduto's views (1992) adapted to each educational level. He stressed the importance of participation, diversity, and the avoidance of violence (Cabezudo and Haavelsrud, 2013), explaining that these aspects were going to be reviewed during the activities, since the project was a participatory and inclusive one that accepted diversity, and where aggressive behaviors had no place; instead, helping and caring behaviors were prioritized, since we were all 'in the same boat' in this pandemic. To understand the importance of caring, other related values, such as respect (Camps, 1994) and love (Caduto, 1992), were used, since care could be defined as respect plus love and implies that 'you matter to me'. To explain the concept of value, concrete examples adapted to each educational level and used in different contexts (family, school, and society) were used in all cases; the emotional well-being engendered by caring for others was highlighted, as opposed to the discomfort generated by conflict and the lack of respect and care.

The artist Vik Muniz was introduced when this activity was completed; this was followed by a visit to the exhibition, the main activity of the program, to contemplate his artworks, with special focus on "256 colors, after Gerhard Richter". The students were asked to sit in front of the artwork, and a three-phase 'visual thinking' activity (Arnheim, 1969) comprising the following three stages was performed (Figure 1):

- Phase 1. Contemplation of the artwork
- Phase 2. Description of the artwork
- Phase 3. Interpretation of the artwork

During Phases 2 and 3, open-ended questions were asked that allowed participation, negotiation, and sharing of the different meanings that the artwork elicited in each student.



Figure 1: Visual thinking activity with the artwork “256 colors, after Gerhard Richter” in the background

After returning to the museum’s educational area (or to the school in case of Scenario 2) (Figure 2), Activity 3 was explained to the participants, who were asked to paint the rectangles in a color representing their emotions regarding COVID-19. Participants were supplied with the necessary resources required to carry out their work independently: a magnetic rectangular piece, carpeting material, tempera paints, receptacles for the mixture, brushes, paintbrushes, and rollers.



Figure 2: Collaborative creative activity in the classroom

Materials for Activity 4 were distributed when this activity was completed: Activity 4 involved storywriting about a COVID-19 situation regarding the emotional experiences of the students, highlighting the value of caring (Figures 3 and 4).



Figure 3: Individual creative activity about emotions and caringo



Figure 4: Individual creative activity about emotions and caring

Activity 5, the final activity, consisted of participants sharing their work with others, and highlighting the values of respect, love, and care. They were then

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thanked for their cooperation and invited to attend the conclusion of the program once the collaborative mural was finished, to contemplate it and reflect on the colors of the work. This had to be eventually cancelled; however, a thank-you newsletter was sent to the participants with a picture of the finished mural). Activity 6 was the valedictory activity (Figures 5 and 6).



Figure 5: Farewell



Figure 6: Collaborative mural "The 256 colors of COVID-19" completed by the students

5. Discussion

The program was designed keeping in mind Hooper-Greenhill's view that meaning "is produced by museum visitors from their own point of view, using the skills and knowledge they may have, according to the contingent demands of the moment, and in response to the experience provided by the museum" (Hooper-Greenhill, 2005, p. 5). While trying to endow the experience with meaning, the program designers were also aware that the process of active interpretation is complex and requires an appropriate context for participants to connect with and focus on the proposed experience (Hein, 2000, p. 66).

The educational program was designed based on the belief that "the art education phenomena are connected to other social, political, artistic, and educational events that create bodies of knowledge and a structural network that provides a level of understanding that influences beyond the contact of the field" (Hernández, 1998, p. 59). Thus, the program was intended to connect art education with the social situation created by the COVID-19 pandemic.

A total of 23 schools participated in the project, including a special educational facility, with a total of 704 students. The age of the schoolchildren ranged from 6 to 12 years.

The motivation shown by the participants in reinterpreting Muniz's work was noteworthy. This was confirmed by the participants' verbal expressions during the activity. This motivation was used by the facilitators to focus on the concept of emotional management and the value of caring. At the end of the program, the students generally expressed their satisfaction with the activities.

Conversations with the students provide clear evidence of the emotion-driven thinking that inspired the COVID-19 art program and channeled the creative flow of ideas. These were primarily embodied in discursive images with emotional content that accompanied the personal retelling of the COVID-19 story.

Participation went beyond each school group and each educational institution. There were many schools involved in the project. This meant that each student not

only had to take responsibility for their part and for the rest of their class but also for the other groups involved in the creation of the mural. This further stimulated social interaction, since participation went beyond the class and the educational institution to which each person belonged.

The positive environment created by creative and collaborative activities in the museum context allowed values such as 'friendship' to come into play (Miell and MacDonald, 2000); this was associated with the value of 'caring', one of the objectives of the program.

It is worth noting the ease with which the students faced the emotional situation provoked by the pandemic—it was not difficult for them to select a color to represent their emotional state. Assessing the value of "caring" was not easy, as the instruction lasted only two hours, but the willingness of the students to comply with the rules imposed by the pandemic indicated their feelings about caring for the educational community. The program was assessed using satisfaction surveys among the accompanying teachers. The mean score of 9.1 out of 10 indicates the high motivation and efficiency with which program activities were carried out. The same is true of the manner in which emotions generated by COVID-19 and care values were communicated.

6. Conclusions

Our results and reflections on these lead to the following conclusions:

- The educational potential inherent in contemporary art, for example, the work "256 colors, after Gerhard Richter" (2015) by the artist Vik Muniz, favors the learning of emotional management and values such as caring. In the field of museum education, research on value education (such as the value of 'caring') is a subject of interest. The use of real objects in the various exhibitions can achieve this purpose. The experience of re-creating Muniz's artwork collaboratively could provide significant life experiences for users, revive memories of old experiences associated with these emotions, and highlight the importance of individual and collective caring, not only for those in the same class or school but also for students from other schools.

- The collaborative project had had a high level of participation and was highly valued by the schools, which indicates the interest currently aroused in society by the educational possibilities presented by the pandemic .
- Future research on educational programs with special focus on creativity could favor the formation of one's personal identity, and the development of cognitive and emotional values, such as caring, by fostering interaction with other members of the community.
- Although the results should be confirmed using larger and more diverse cohorts, we can conclude that students who participated in the program were able to use their creativity to acquire enhanced skills that may be applied to other subjects of the school curriculum.

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