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MAPEANDO A CIDADE DO RIO DE JANEIRO COM JOVENS E CRIANÇAS MAPPING THE CITY OF RIO DE JANEIRO ALONG WITH YOUNGSTERS AND CHILDREN

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Resumo

This article presents the development of the methodology and procedures implemented to date in the project "Dialogues between the school and the city: mapping the educational territories of Rio de Janeiro city." The text is based on a activity that surveyed the perceptions of students from 734 school units in the Municipal Education System and the subsequent processing of the information obtained. This one-day event was coordinated by the Planning Office of the Subdivision of Planning and Monitoring of the Executive Office and the Municipal Department of Education, in partnership with the research groups GAE (Environment and Education Group) and SEL-RJ (Open Space Systems in Rio de Janeiro) from the Graduate Program in Architecture at the Faculty of Architecture and Urbanism, Federal University of Rio de Janeiro. The project's objective is to collectively produce an affective mapping of the city of Rio de Janeiro, composed of drawings, texts and images produced by children about their journey between home and school. The aim is to integrate the impressions of these young people with the process of formulating the Sustainable Development Plan for Rio de Janeiro City – 2030. To achieve this aim, a conceptual approach was adopted that contains methodologies for applying, analyzing, and synthesizing results, based on research developed by the aforementioned institutions. This article highlights the methods, problems and possibilities observed during this first phase of work, in terms of analyzing the responses in the context of the 4th Regional Education Coordination Office (CRE). The intention is to contribute to the debate on the directions to be taken in participatory processes, exploring methods applicable to other research and urban contexts, and to help strengthen integrated university research, teaching and extension activities, focusing on the production of knowledge about interventions in urban planning and design.

Keywords: Participatory methodology, Mapping, Childhood, City, Open spaces

1 Introduction and conceptual approach

This article presents and reflects on applications of methods experimented on the project "Dialogues between the school and the city: mapping the educational territories of Rio de Janeiro city," which integrated research, teaching and extension activities at the Faculty of Architecture and Urbanism of the Federal University of Rio de Janeiro (FAU-UFRJ). This process was undertaken through a partnership between the research groups GAE (Environment and Education Group) and SEL-RJ (Open Space Systems in Rio de Janeiro), both linked to the Graduate Program in Architecture (PROARQ-UFRJ), and the Rio de Janeiro City Council through the Planning Office of the Subdivision of Planning and Monitoring (CVL/SUBPAR) of the Executive Office, and the Municipal Department of Education (SME). This collaboration enabled the application of the research to reach 734 schools in the Municipal Education System.

The project was conceived by the professors and coordinators of the research groups, Vera Regina Tângari (SEL-RJ) and Giselle Arteiro Nielsen Azevedo (GAE), following a question posed by the researcher and international partner Professor Miodrag Mitrasinovic¹, concerning the scope of the activities with children developed by the SEL-RJ and GAE research groups. Until 2019, the joint activity of the groups was focused on studies of specific urban places, such as the communities of Tubiacanga and Manguinhos in Rio de Janeiro. In response, this process, which began in the second semester of 2019, was developed with the objective of obtaining a systematic vision of the perceptions of the students from the Municipal Education System about their journey between home and school. This process aims to incorporate and spatialize the impressions of young people and children as inputs for projects and for the urban planning in the city. To that end, it encompasses diverse research and mapping processes supplied by the conceptual and methodological framework of the institutions and research groups involved.

The SEL-RJ research group² studies the systems of open public spaces and the shaping of landscapes, focusing on the city of Rio de Janeiro and its Metropolitan Region (Tângari, 2000). In parallel, the GAE research group³ studies children's relationships with the city and its educational territory, subject to the unforeseen and to the actions of those living in it (Azevedo, 2019). Since 2015, the SEL-RJ and GAE groups have worked in partnership on studies and research projects, focusing on the role of the open public spaces in shaping educational territories. The researchers have been constructing a conceptual and methodological repertoire on the relations between architecture, city and childhood, based on the reflection, study and application of tools for listening to children and co-creating projects with them in the city of Rio de Janeiro (Azevedo, 2019; Tângari, Azevedo, 2019).

In the urban context, a large number of the Brazilian metropolises presents a functionalist organization in which the logic of land distribution and the treatment of public space, combined with a scenario of violence and social inequality, exclude vulnerable social groups and make them invisible, especially children, in terms of their right to the city. This spatial reality of insecurity for children affects their urban experiences, which contribute to the construction of their identity through decision-making (Lynch and Carr, 1968). Complementing this understanding, Francesco Tonucci (2009), in his article "Cities at a human scale: the city of the children," asserts that children can also help improve the quality of cities. According to the author, adults become worse without the presence of children, since they feel free to act in an inconsequent manner without caring about others. When children are included and become visible, cities also become safer, since everyone cares about children and when they are on the streets, people look more to the outside (Tonucci, 2009).

Seeking to increase the representativeness of invisibilized social groups, the researchers and professionals that work with children present a new view of these groups. They emphasize that the child is not just a future individual. In an interview published in the book *Quem está na escuta* ("Who is listening?"), Sarmiento (2016) asserts that "all human beings – children, adults, elderly people – are in a process of continuous change and transformation from a biological, ideological, intellectual and cultural viewpoint. The becoming is inherent to the human condition, not specific to childhood" (Sarmiento, 2016, p. 6). The author adds that the child is already an individual with her/his own voice, culture, and language, and deserves to be considered, since s/he is a social actor who is part of the urban setting.

Thus, the listening activities and the participatory processes have the function of giving a voice to minority groups usually excluded from the decision making processes, but who influence the transformation of the city and the landscape. This approach is configured as a strategy to combat violence and support inclusion. In this way, reflecting on listening, on the participatory processes with children, and applying these experiences to study, planning and urban design, are acts of resistance and a fight for democratic ideals and principles of social inclusion.

In his book *Community Participation Methods in Design and Planning*, Henry Sanoff (2000) argues that there is no single ideal solution for the problems of design and planning. Instead there are innumerable potential solutions established on the basis of factual criteria and contextual interpretations (Sanoff, 2000). Following this line of reasoning, it is necessary to emphasize the importance of rethinking the entrenchment of structures founded on a "single, universal and abstract hierarchy between different kinds of knowledge" (Santos, 2007, p. 90). For each problem, therefore, these different forms of knowledge are explored to find a way to respond to established questions, not excluding the existence of hierarchies, but considering that gradations are capable of being reordered according to circumstances. In this way, the population's participation in the interventions in space and the recognition of the importance of the knowledge of distinct social actors enable a response more integrated with the urban context.

Complementing this discourse, Sanoff argues that participation requires the interest and involvement of the participant, recognizing that he or she will proceed or desist in particular stages of the process according to their wish and capacity to continue. In this process, the people most affected by the decisions deserve to have more of a voice. Based on this condition, Sanoff argues that children and young people are potential participants since they have the desire to contribute to their communities.

Integrating this understanding, based on experiences like the creation of assemblies with a children's listening space, Francesco Tonucci stresses the importance of listening to children and enabling their participation. He advocates their recognition as political actors in the implantation of transformations of the city since they more readily assume the roles of the others (Tonucci, 2009). Hearing and developing participatory processes with children thus enables a vision that considers the multiplicity of social actors. Sarmiento adds the argument that the processes should include children because they have "...an enormous plasticity for renewing forms and contents, they will be able to propose and suggest ways of seeing the world other than those crystallized in dominant cultures" (Sarmiento, 2016, p. 6).

Following these theoretical references that consider the importance of including young people and children in the processes of constructing the city, the research presented in this article has been constructed through the development of a collective affective mapping that captures the perceptions and wishes of young people and children in the Municipal Education System. As an instrumental methodological approach, this research adopts James Corner's definition (1999) of mapping as a process guided by experience and by contact with the real world. As Corner also points out, however, mappings do not reflect the reality but mirror just one portion of it, elaborated through the selection of data and rules, meaning that a mapping process can never be neutral. Pursuing this approach, the activity of mapping allows space for the emergence of new realities and enables the revealing of hidden local possibilities, which explains its formative and creative importance in the project processes.

Young people and children, very often silenced in the process of transformation of cities, experience and possess knowledge about the territory in which they live. Listening to these actors helps to reveal another layer of the reality that they experience, as well as enabling new proposals. These aspects reinforce the potential to incorporate this knowledge in the planning and production of spaces in Rio de Janeiro city.

Based on the conceptual approach presented here, application of the activity and development of the research have as objectives:


- + Identifying how the children/young people experience the public space;
- + Contribute to the formation of a critical awareness about the city and the construction of the citizenship of the students, recognizing them as individuals with rights to the city;
- + To give visibility to the perceptions of the young people and children as a form of identify and recuperate the vitality of the city and public space, based on recognition of the educational opportunities of the territories.

Recognizing the current production of 'adultcentric' space and the potential for young people and children to participate in urban planning, we formulated the following question: how to undertake a systematic mapping of Rio de Janeiro city from the viewpoint of young people and children enrolled in the Municipal Education System? With this intent of exploring forms of producing a systematic mapping of the city, an activity was proposed to be applied in the schools from the Municipal Education System by the GAE and SEL-RJ groups, under the coordination of Professors Giselle Arteiro Nielsen Azevedo and Vera Regina Tângari.

During the first stage of this activity, students from public schools belonging to the Municipal Education System of Rio de Janeiro city took part by producing drawings, texts and images of the journey made by them between their home and the school they frequent, as exemplified in Figure 1. This event was developed by participants of the research groups and coordinated by CVL/SUBPAR of the Executive Office and the SME.

The proposal involved the simultaneous application, on a voluntary basis, of a dynamic in all the system's institutions on "World Urbanism Day: November 8, 2019," at a time appropriate in the school timetable.

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DIÁLOGOS ENTRE ESCOLA E CIDADE:
MAPEANDO OS TERRITÓRIOS EDUCATIVOS DA CIDADE DO RIO DE JANEIRO
Dia Mundial do Urbanismo - 8 de novembro de 2019

ESCOLA: Edmundo Leão ANO/SÉRIE ESCOLAR: 4º ano
IDADE: 9 GÊNERO: feminino BAIRRO ONDE MORA: Ramos
TIPO DE TRANSPORTE PARA ESCOLA: o pé TEMPO DE DESLOCAMENTO: 20 min

1) Como é o caminho que você faz da sua casa até a escola onde você estuda? Descreva, em desenhos e/ou palavras, o que você vê, ouve e sente durante esse percurso.

O caminho do meu casa até a escola é bem. Lá tem poucas árvores e há muito as calçadas muito ruins. Lá tem poucas pessoas no caminho e é muito tranquilo. Tem onde parar e é um caminho muito bom no caminho.

2) Descreva, em desenhos e/ou palavras, o que você deseja para esse percurso?

Eu desejo a uma percurso mais arborizado e agradável. E as calçadas serem boas.

Fig. 1: Example of the form used in the research. Source: GAE/SEL-RJ Archive, 2020.

In January 2020, began the second stage of the research based on the analysis and systemization of the responses of the children and young people, still in a discussion process. This stage included the analysis of the impressions of 13,376 students from the 734 school units that voluntarily took part in the activities. These school units include Municipal Creches, Infant Development Schools, Municipal Schools, Special Schools and Integrated Public Education Centers (CIEPs), all belonging to the set of units making up the Municipal Educational System. The units are distributed among the eleven Regional Education Coordination Offices (in Portuguese *Coordenadorias Regionais de Educação*: CRE).

Following the stages of applying the dynamic and systematizing the collected information, the research sought to elaborate – as one of the planned outcomes – a collective affective mapping of Rio de Janeiro city, containing the perceptions and desires of the participants in relation to the home-school trajectory. This collaborative work can be considered a tool to establish a dialogue between students from the schools and the local authorities, contributing to the collective and shared construction of a set of inputs to the Sustainable Strategic Plan (in Portuguese *Plano Estratégico Sustentável*: PDS) conducted by CVL/SUBPAR of the Executive Office of the Rio de Janeiro City Council.

In this context, the project also sought to align itself with the Sustainable Development Goals (SDGs) of the United Nations (2015), focusing on the integrated goals: Access to quality education (Goal 4); Sustainable cities and communities (Goal 11); Life on land: prioritize safe, inclusive, accessible and quality public spaces (Goal 15); and Partnerships to achieve the Sustainable Development Goals (Goal 17). Through partnerships between UFRJ and academic collaborators, the Executive Office and the Municipal Department of Education, the inclusion of young people and children from the educational system in the discussions on the city aims to: reinforce the proposal of educational territories; inform the proposals of existing public spaces' regeneration; support the creation of new accessible public spaces where unmet demand exists; and contribute to urban planning in general.

Based on this reflection, the article examines the construction of the methodology and analysis of the procedures conducted through the experience of processing the data from the 4th CRE, shown in Figure 2, in order to contribute to the methodological discussions relating to the explored themes, recognizing that the method involves selections, choices and rules that determine the direction to be taken.

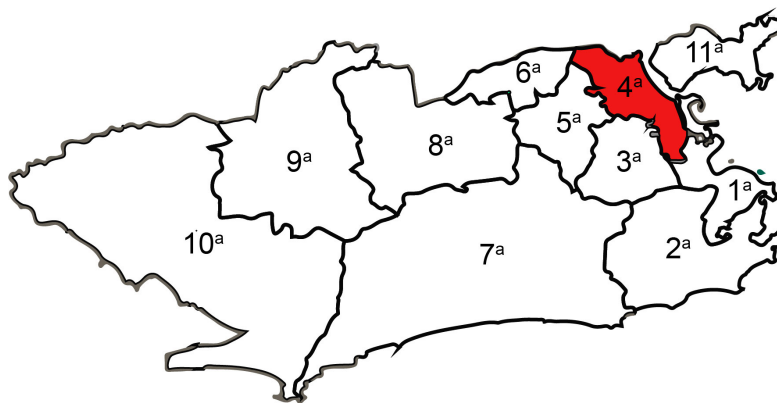


Fig. 2: Geographic division of the CREs, highlighting the location of the 4th CRE. Source: FERNANDEZ, 2020, based on data from the Municipal Department of Education of Rio de Janeiro. Available at: <http://www.rio.rj.gov.br/web/sme/exibeconteudo?id=9872673>. Accessed: 11 May 2020.

2 Development of dynamics and recommendations

Questioning of the impacts of the activities undertaken previously by the research groups resulted in the proposal for a collective affective mapping of the city, as described above. This process translates the demand and desire to obtain a systematic vision of the territorial urban aspects of Rio de Janeiro from the viewpoint of children and young people. Seeking to define the methodological path to be developed in this project, the first discussions were held in September 2019 on the tools to be used, taking into consideration the conditioning factors for the application and analysis of the works developed by the children and young people.

The selection process followed the usual theoretical-methodological approaches and premises of the research groups involved. In this context, the activities were elaborated through the composition of tools for listening and participating, anchored in the repertoire developed and applied since 2015, originating from research methodologies in the areas of morphological studies, environmental perception, and post-occupation analysis. These tools form part of the strategies and procedures of cartography, which mobilize processes and relations. They are tools, therefore, for opening channels for listening and talking (Gomes et al., 2019). In this sense, the listening tools create spaces for dialogue, opened by an initial stimulus, and can be developed using different forms of expression according to the context of application. This opening and uncertainty of the process also form part of the activities of co-creation proposed in the participatory instruments.

In the case of the research presented in this article, the participation occurred at the consultation rung on the "ladder of citizen participation" (Arnstein, 2002) where, based on the tools selected, it was possible to create a space for young people and children to speak about their territory. The joint research of the groups on Educational Territories was established as a parameter, focusing on the qualitative analysis of open public spaces. Thus, the account of the perceptions of the journey from home to school was suggested as a form of exploring the everyday issues of students in terms of their experience of urban spaces.

Due to the scale of the approach, two important conditioning factors stood out in terms of the chosen instrument. First, the activities would be undertaken by the teachers from the Municipal Education System and not by the researchers directly, which meant a loss of information and of the dialogues that emerged during the activity. Second, a fundamental issue was that there would be many items to analyze and in order to minimize noise in the communication, the activities would have to be clear, objective and succinct, and would take the period of one class to complete.

The designed form included, in its initial field, closed questions in order to obtain from the student information on the school where they study, their age, year, gender, home neighborhood, time taken in the journey to school, and the transportation used. Next, two other tools were used: the Mental Map (Lynch, 1997) to comprehend the student's experience of the place, encompassing descriptive points, as well as the feelings and sensations generated; and the Wish Poem developed by Henry Sanoff (1999), in which participants express their needs, feelings and wishes concerning the lived context through drawings or writing, seeking to identify prospects for the journey and the place. Consequently, the following questions were formulated:

1 What is the journey like from your home to the school where you study? In drawings and/or words, describe what you see and feel during this journey.

2 Having replied to the first question, describe, in drawings and/or words, what you would wish this journey to be like.

In November 2019, a test activity was conducted with the 9th grade of Fundamental Education at a school in Nova Iguaçu, in the Metropolitan Region of Rio de Janeiro. Seeking to include the Sound Landscapes research approach (Rego and Niemeyer, 2016), which seeks to understand acoustic perception and how it influences the composition of the landscape, a third question was added to the form:

3 Finally, describe, in drawings and/or words, which sounds you perceive during this journey. Tell us which you like and don't like.

For the survey conducted on November 8, 2019, seeking to reduce the number of questions to facilitate its application and later analysis, questions 1 and 3 from the test form were combined, generating the following question:

1 What is the journey like from your home to the school where you study? In drawings and/or words, describe **what you see, hear, and feel during this journey**.

However, in the process of transmitting the instructions to the teachers for the activity on November 8, both variations were sent and they generated different applications of the forms in the schools of the 4th CRE. These different formats subsequently led to distortions to the analysis and tabulation of the data, a fact that will be clarified later.

Attached to the form sent were recommendations to the teachers for the development of the activity. These recommendations considered the time to be allocated to preparing, applying, and collecting the forms during the 50-minute class. It was also stressed out that the students should be free to take part and express themselves on the topics, forms and themes that they themselves wanted to discuss, asking the teachers to avoid directing the students' responses and maintain a neutral stance. In parallel to the proposal elaborated by the research groups, CVL/SUBPAR and the SME were already working in partnership, seeking to include the Sustainable Development Goals (SDGs) on the curricula of the Municipal Education System and conducting participatory activities with teachers and directors from this network. In this context, some school directors understood that the work should be undertaken along these lines, directing the responses and results presented.

3 Application in the schools

As described previously, the activity was applied simultaneously on November 8, 2019, in the various schools of the Municipal Education System, and participants of the research groups were able to accompany the process in the districts of Manguinhos, Ilha do Governador, Maré and Bento Ribeiro. Prior to this date, some schools had already begun working on the theme, encouraging reflection on the area surrounding the school and the territory experienced by the students. In other schools, the activity was introduced for the first time on the day of application. Thus, the dedication of the teachers was reflected in the commitment of the students to replying to the questions.

The research groups received the completed forms between December 2019 and January 2020. These were organized according to the division of the Regional Education Coordination Offices (CREs). This enabled a visualization of the overall dimension of the work being developed and its representativeness by quantifying the number of schools taking part per CRE and the percentage of participation, as shown in Table 1.

CRE	TOTAL SCHOOL UNITS	PARTICIPATING UNITS	PERCENTAGE PARTICIPATING
1	96	32	33.33%
2	153	21	13.73%
3	134	91	67.91%
4	166	98	59.04%
5	130	127	97.69%
6	113	16	14.16%
7	180	51	28.33%
8	188	147	78.19%
9	165	87	52.73%
10	197	34	17.26%
11	43	30	69.77%
TOTAL	1565	734	46.90%

Table 1: Total participation of schools per CRE. Source: GAE/SEL-RJ Archive, 2020.

Table 1: Total participation of schools per CRE. Source: GAE/SEL-RJ Archive, 2020.

Another preliminary analysis relates to the participation of different kinds of teaching units: nurseries, Infant Development Schools (EDIs), Municipal Schools and CIEPs. According to the data presented in Table 2 below, the largest number of forms came from the Municipal Schools:

CRE	PARTICIPATING UNITS	PARTICIPATING EDIs	PARTICIPATING MSs	PARTICIPATING CIEPs	PARTICIPATING NDs
1	32	8	22	2	-
2	21	2	16	3	4
3	91	24	38	5	23
4	98	30	59	9	-
5	127	30	93	4	1
6	16	5	9	2	-
7	51	3	42	6	-
8	147	20	104	11	1
9	87	23	55	9	-
10	34	13	20	1	-
11	30	-	18	2	-
TOTAL	734	158	476	54	29

Table 2: Total participation by type of school unit. Source: GAE/SEL-RJ Archive, 2020.

Table 2: Total participation by type of school unit. Source: GAE/SEL-RJ Archive, 2020.

4 Defining the mode of preliminary reading

The next challenge, following application of the activity in the schools, was to define how the resulting information would be systematized to assemble an affective mapping. How could the themes presented in the subjective responses of the students be translated objectively and how could the information be spatialized? To discuss these questions, the research groups held internal meetings based on a prior reading of some of the forms to address the demands of systematizing and tabulating the information obtained.

Meetings were subsequently held with technical staff from CVL/SUBPAR of the Executive Office and the Instituto Pereira Passos (IPP-PCRJ) in order to develop a spreadsheet to identify categories and subcategories referring to the urban setting, which would assist in the analysis of the material sent by the schools. An action plan involving various teams was also elaborated whereby the analysis of the forms and tabulation would be undertaken by the research groups and collaborators on UFRJ premises, while the tabulations would be systematized and georeferenced by technical staff from IPP-PCRJ. As a result, an institutional strategy was defined for the data processed in the Affective Mapping to serve as input for the development of the Sustainable Development Plan for Rio de Janeiro City.

Consequently, a spreadsheet was constructed to respond to the demands and questions of the Local Planning Office, covering data relating to patterns of urban morphology, infrastructure networks, local landmarks, and themes referring to the United Nations SDGs. In this context, the IPP-PCRJ technical staff required the tables to be formatted and completed in a systemized form that would enable the data to be used later for georeferencing of the syntheses resulting from the work.

Between January 27 and February 7, 2020, the course "Mapping the Educational Territories of Rio de Janeiro City" was held, corresponding to the stages for training the team and collaborators, developing the analyses, and systematizing the data contained in the forms. During the first week of the course, the table for processing the data obtained with the activity in the schools was rediscussed and adjusted, undergoing a number of alterations to align the process of data analysis and tabulation, since the initial spreadsheet had not included recurrent themes in the responses on the forms used. After the alterations, the table resulted with the following categories and subcategories, shown in Table 3:



Table 3: Categories and subcategories of analysis. Source GAE/SEL-RJ Archive, 2020.

5 Course on Mapping the Educational Territories of Rio de Janeiro City

An integral part of the method elaborated by the project coordination team, the course's objective was to analyze the works of the students, adapting them to the spreadsheet described previously. To achieve this task, workgroups were organized, divided according to the 11 CREs, to which the corresponding forms were distributed. The course was formed by: coordinators (Professors Vera Regina Tângari, Giselle Arteiro Nielsen Azevedo and Alex Assunção Lamounier); a pedagogical consultant and member of the Local Planning Office (Fernanda Burla); team coordinators (Alex Lamounier, Alain Flandes, Denise Pinheiro, Elizabeth Nogueira, Flavia Lima, Flora Fernandez, Gabriel Parreira, Giselle Cerise Gerson, Isabela Correia, and Rafael Gomes); and external participants, including undergraduate and graduate students, as well as professionals from the areas of Architecture, Geography and Education. The teams were composed by 4 to 7 members.

This article explored the analyses of the responses obtained in the 4th CRE, which received works from 98 school units, including 30 creches and Infant Development Schools (EDIs), 59 Municipal Schools and 9 CIEPs. Over the course of processing the data, the first difficulty confronted was the time to be spent analyzing each form relative to the total period available for carrying out the work. As a result, and in conjunction with the pedagogical consultant, the analysis of the works of children from nurseries and EDIs, shown in Figure 3, was questioned due to the need for a more careful reading and also the fact that many drawings were unrelated to the questions, or to the relationship between the child and the territory or journey to and from school, or to the child's experience of the city. It was therefore agreed by all the participants that the works submitted from the creches and EDIs would not be analyzed. As a result of this decision, a total of 1571 forms were analyzed for the 4th CRE, received from 67 teaching institutions, including Municipal Schools and CIEPs.



Fig. 3: Works by students from creches and EDIs. Source: GAE/SEL-RJ Archive, 2020.

In the process of analyzing the works, it became apparent that each teacher adapted the proposed dynamic in a particular way, as shown in Figure 4. Sometimes this variety of interpretations of the task made reading and analysis of the works more difficult, since they presented different formats and, in some cases, responded to different questions to those proposed by the research groups.

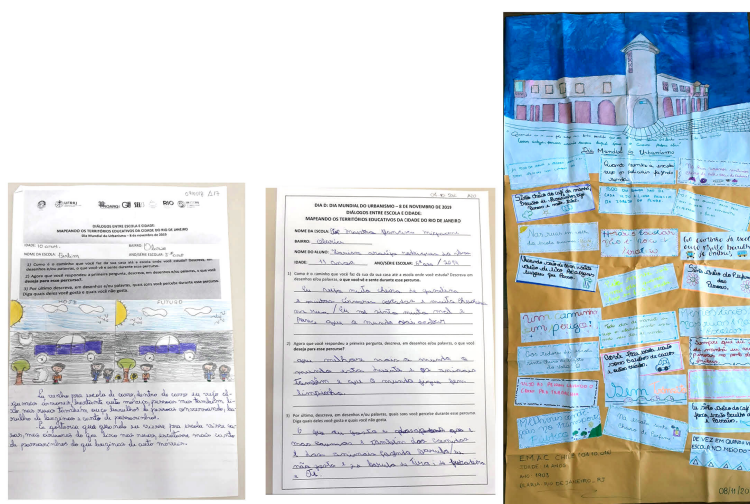


Fig. 4: Different applications of the forms. Source: GAE/SEL-RJ Archive, 2020.

In all, 22 schools improvised by recreating the form in other formats, applying it in the form of a letter, notebook, panel, scale model, or even creating their own dynamic of application. Furthermore, in 17 schools the draft form containing three questions was used, including the third question related to sound perception. Using this form, many of the works presented responses directed specifically to sound, which led to a distortion when it came to completing the table, with an emphasis on acoustic aspects.

Nevertheless, irrespective of the support used in completing the form, it was possible to perceive the emotional involvement of the teacher who led the activity in the eventual results. In many cases, even when the form was followed, a pattern was perceptible in the expressive choices of the students from a particular class. In some schools, as the works from the classes shown in Figures 5 and 6 illustrate, almost all the students presented drawings that represented urban scenes, while in another school the class presented a series of reflective texts. In other classes, as Figure 7 shows, the collective form of expression was a set of maps, which graphically and similarly demonstrated the morphology of the surrounding area, as well as infrastructure and other urban aspects. Thus the same application of a tool reverberated in a multitude of forms of representation that made evident potentialities and interferences resulting from the teacher's work as a mediator.



Fig. 5: Works from a class with drawings of urban scenes. Source: GAE/SEL-RJ Archive, 2020.



Fig. 6: Works from a class with drawings of urban scenes. Source: GAE/SEL-RJ Archive, 2020.



Fig. 7: Works from a class with drawings of maps. Source: GAE/SEL-RJ Archive, 2020.

Influenced by the form of mediation of the teachers, the students who responded to the activity introduced another layer of complexity to the reading of the works as individual perceptions came into play. An interesting aspect to emphasize here was the students' perception that the work might be addressed to someone specific. On learning that the Rio de Janeiro City Council would be receiving the material, as part of the development of its planning proposals, some young people replied by addressing the City Council directly. In other situations, it was possible to perceive both through the development of the responses and through local contexts recognizably influenced by religious questions that the manifestations did not refer to religiosity.

Finally, another problem encountered concerned the limitations arising from the choice of tabulation as the form of analysis, when the students' responses covered themes that were either not in the table or appeared in a very generic or specific form. For example, in some drawings the perception of rain as an element was observable. In the table, however, the possibilities for categorizing this classification were either generic – "water quality" – or more specific – "floods and inundations." Another problem related to the table was a certain difficulty in fitting the subjective elements into the concrete categories. As a result, in analyzing the results of the table, the reflexive and qualitative dimension of the presented works is lost. Another point concerns the relations between the elements present in the drawing or text since the connection between them is not reflected in the table. For example, the annoyance caused by cars was due either to the noise or to the lack of respect shown by drivers, who fail to observe traffic signs or park on the sidewalk.

During the process of analyzing and tabulating the forms, the reading process was perceived to become increasingly quantitative rather than qualitative. The volume of information, the lack of time for a deeper analysis, and the number of variants initially hindered a systematic comprehension of the set of results in a more qualitative form. In an attempt to understand the relations between the responses and the territories, therefore, all the documents sent by the schools were reexamined after tabulation of the results in order to identify themes of each school institution, and then relate these to the responses of other schools located in the same district or nearby. However, this analysis ended up concealing many layers that are also significant in relation to these territories. But despite the difficulty of systemization, it was possible to pick out some recurrent themes in the discourses of the young people and children that were common to the territories of the 4th CRE:

- + The annoyance caused by garbage in the streets was cited, in some cases, in relation to the smell and, in other cases, in relation to the lack of educated behavior, or the need for more frequent collection;
- + There was an identifiable demand for maintenance, care and cleaning of streets and sidewalks, along with squares and parks with broken paving and equipment, as well as the creation of new leisure areas;
- + The theme of violence was also frequent in the discourse of students since many live in contexts in which they coexist everyday with the presence of guns, drugs, shootouts and police operations, denoting a

lack of policing or abuses by the police forces. The naturalization of violence could be perceived in statements like *"I'm already used to it," "I don't feel anything" or "I don't feel afraid any more."* However, the repeated wish for more security (not having to hear shots or see armed gang members, not wanting to smell marijuana, not having one's house invaded by the police without a court order) reinforces the perception that diverse forms of violence need to be confronted in these territories;

+ The theme of the mobility of the young people stood out due to questions related to car traffic, since, according to the description of the students themselves, car drivers respect neither pedestrians nor traffic signs;

+ As students from many of the schools responded separately to the question on the sounds that they hear on the journey to and from school, it was possible to observe the experience of violence through the sounds of gunshots and fights, as well as the disturbance caused by the sound of excessive car traffic and the preference for 'natural' sounds.

6 Final considerations

The integration of research, teaching and extension, in partnership with municipal administrative bodies, made this experiment possible, reinforcing the potential of collaborative actions for the construction of a democratic and inclusive planning process. Thus even though the process of mapping the wishes and perceptions of students has not yet been fully completed, it is already possible to elaborate reflections on this activity and on theoretical questions that substantiated the approach taken by this research and the methods applied during the process.

As emphasized earlier, it was important to confirm that the children's statements presented diverse elements already naturalized for adults, such as urban violence, garbage, cars, the lack of maintenance of city spaces, and the abandonment of animals. These topics are very often pushed into the background by the public authorities, but represent difficulties and limitations in terms of the appropriation of public spaces of the city by children and young people. In this context, it was possible to perceive the potential of listening to and including children in the formulation of public policies related to urban planning, calling attention to questions that are perhaps not priorities for adults but highly significant for people's well-being in cities.

In terms of the application of the activities in the schools, the many stages of communication – from the formulation of the proposal to being sent out to and received by students and, finally, its return to the researchers – generated considerable noise and variations in the interpretations of the activities, an aspect expected due to the scale and scope of the activity. The variations can be explained both by the process of mediation and interpretation of each teacher, and its transmission to the students, and by the difficulty faced by the researchers in understanding the meaning of some of the young people's responses. Despite the care taken to elaborate a clear set of guidelines for the activity, failures occurred that affected the process. In many cases, however, the intervention of the teachers enabled the students' expressions to be incorporated on the forms.

In relation to the analysis and systematization of the students' views as part of the spatialization of the city territory, both present a possible pathway to be improved. The scale and scope of the activity imposed a simplification on the systemization of the works from the participating school units from the CREs and, as a result, some information ended up losing its expressiveness. One possible way forward would be a multiscale analysis, both processing the data at a general level, and analyzing specific contexts and territories more closely.

The preliminary analyses reveal territorial differences and social inequalities relevant to the implementation of public policies that target, for instance, access to spaces of the city, their maintenance and material quality, and the problems of violence. However, further progress needs to be made with the results of the activity and different methods of analysis need to be tested to ensure that the children's views are incorporated. Taking these points into consideration, the participatory process methodology presented here incorporates strategic aspects that were constructed in accordance with the context and with the care to be taken during the procedures, and that can contribute to the elaboration of similar experiences.

Finally, it is essential to discuss the methodological approach in the participatory process activities, since all the stages interfere in the interpretation and in the subsequent responses. We can conclude that the discussion of the procedures developed can reveal the discourses and expressions of diverse actors, as well as contribute to collective decision making, elements that add meaning to the results of a participatory process. Thus it is crucial to understand the limitations and possibilities determined by the choice of procedures to comprehend the bias arising from the choice and the application of the selected tools, the process of analysis and the results obtained. It is worth highlighting that each stage of the work of listening presents a diversity of elements and reflections, not necessarily incorporated in the final product of a plan or urban project, but fundamental to knowledge of the real world situations being studied.

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Referencias

Arnstein, S. R., 2002. Uma escada da participação cidadã. *Revista da Associação Brasileira para o Fortalecimento da Participação – Participe*, 2(2), p. 4-13.

Azevedo, G. (ed.), 2019. *Diálogos entre arquitetura, cidade e infância: Territórios educativos em ação*. Rio de Janeiro: Faculdade de Arquitetura e Urbanismo da Universidade Federal do Rio de Janeiro (FAU-UFRJ) / Paisagens Híbridas.

Corner, J., 1999. The Agency of Mapping: Speculation, Critique and Invention. In: Cosgrove, D. (ed.). *Mappings*. London: Reaktion, 1999, p. 213-252.

Gomes, R., Costa, R., Mendonça, D., 2019. Modos de leitura e imersão no território. In: Azevedo, G. (ed.). *Diálogos entre arquitetura, cidade e infância: Territórios educativos em ação*. Rio de Janeiro: Faculdade de Arquitetura e Urbanismo da Universidade Federal do Rio de Janeiro (FAU-UFRJ) / Paisagens Híbridas.

Lynch, K., Carr, S., [1968] 1995. Where Learning Happens. In: Banerje, T., Southworth, M. (eds.). *City Sense and City Design: Writings and Projects of Kevin Lynch*. Cambridge: MIT Press.

Lynch, K., 1997. *A imagem da cidade*. São Paulo: Martins Fontes.

Rego, A. Q., Niemeyer, M. L., 2016. O uso da cartografia sonora na avaliação da transformação das paisagens sonoras devido a implementação do Plano Estratégico Urbano das Vargens. *Revista Thésis*, 2, p. 246-257.

Sanoff, H., 1999. *Community Participation Methods in Design and Planning*. New York: Wiley.

Santos, B. S., 2007. Para além do pensamento abissal: das linhas globais a uma ecologia de saberes. *CEBRAP*[online], (79), p. 71-94. Available at: <http://dx.doi.org/10.1590/S0101-33002007000300004>. Accessed: 5 Mar. 2020

Sarmiento, M. J., 2016. Retrato em Positivo In: Friedmann, A., Romeu, G. (eds.). *Quem está na escuta? Diálogos, reflexões e trocas de especialistas que dão vez e voz às crianças* [e-book]. São Paulo: Veredas, p. 5-12. Available at: http://primeirainfancia.org.br/wp-content/uploads/2016/11/T300000001836-0-Mapa_infancia-000.pdf. Accessed: 5 May 2020.

Tângari, V. R., 2000. *Grupos de Pesquisa Sistemas de Espaços Livres no Rio de Janeiro - SEL-RJ. Rio de Janeiro: ProArq*. Available at: <http://www.proarq.fau.ufrj.br/pesquisas/grupos-de-pesquisa/19/sistemas-de-espacos-livres-no-rio-de-janeiro-sel-rj>. Accessed: 5 May 2020.

Tângari, V. R., Azevedo, G. A. N., 2019. Conflicts and challenges for Architecture and Urbanism education: building up urban spaces together in the city of Rio de Janeiro, *12th CITTÁ International Conference On Planning Research*. Porto: FAUP, 2019.

Tonucci, F., 2009. Ciudades a la escala humana: la ciudad de los niños. *Revista Educación, número extraordinario*, p. 147-168. Available at: <http://www.educacionyfp.gob.es/dam/jcr:67ddb416-cee6-4bce-8b3f-1567c98ef7a4/re200907-pdf.pdf>. Accessed: 5 Mar. 2020.

United Nations. *Transforming our World: The 2030 Agenda For Sustainable Development*. Available at: <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>. Accessed: 5 Mar 2020.

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2 More information available at: <https://bit.ly/3d2k53f>. Accessed: 5 Mar. 2020.

3 More information available at: <https://bit.ly/2z8yHzn>. Accessed: 5 Mar. 2020.