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Abstract

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The design team from Barrios para Crecer interacted with target participants, residents and actors in meetings and co-design workshops which sought to combine efforts and generate ideas for each of the playgrounds in the provided locations. The resulting findings were varied. In practice, several difficulties arose from the involvement of various public institutions in the process, including issues with time, public interest, attendance, political miscommunication and additionally inadequate materials causing the case studies and project to suffer. However, it provided essential insights into the structuring of future international research into co-design projects highlighting national relevant dilemmas to overcome within Uruguay. The conclusion reframes ‘Barrios para Crecer’ and proposes a tool-kit for implementation in co-design projects which might make the participation of young children in vulnerable communities visible in the realm of public entities in the context of cities across Uruguay.

Keywords Co-design, Participation, Early childhood, Vulnerable communities, Public spaces, Governmental multidisciplinary project.

BABY STEPS:

introducing co-design in public space interventions with early childhood and vulnerable communities in Uruguay



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ABSTRACT

With the aim of generating proposals which are highly coherent with the needs, values and desires of end-users, several disciplines of design are undergoing methodology development to enable the collaboration in the design process with end-users. Urban design has been influenced by these global trends and residents are increasingly being included during phases of design projects to improve quality of life within communities. Conversely, maximising the participation of young children in the design process of public spaces has yet to be widely researched.

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1. INTRODUCTION

1.1 BACKGROUND

The following report is concerned with the understanding and intervention of the co-design of public spaces and associated services for and with early childhood focusing primarily on vulnerable populations. Through three case studies in Uruguay, in which a multidisciplinary, multi-sector and multi-generational team of professionals and families are involved, this analysis is interested in the participation of young children and their families in the design of public playgrounds and their facilities for the neighbourhoods.

The work is associated with the vast spectrum of community involvement in the design of public spaces and facilities, approaching from it from two perspectives. First, urban design has some experience with community participation mainly in the design of parks and green areas. The second perspective is regarding children: there is considerable research into their participation for product and technology development. But both perspectives to date lack research involving children from early childhood. The case studies utilised in this work are part of a State intervention project which highlights extra and unexpected difficulties to the problem to be studied.

A possible difficulty regarding the participation of early childhood in co-design processes may be communication barriers. How to maximise this participation of early childhood in the design of public space is not an area with a great depth of literature. This work will investigate how to achieve understanding about involving young children in design processes of these types of public spaces and what are the associated implications of doing so. In practice, several difficulties arose from the involvement of various public institutions in the process. Thus, one of the most significant outcomes of this work was the development of an initiative which made the participation of young children from vulnerable communities viable in the realm of public entities in context of cities across Uruguay.

1.2 CONTEXT

In Uruguay 20.6% (INE, 2016) of the children are born below the poverty line. This situation is critical and illustrates the conditions in which many Uruguayan children are being raised. Their families and homes lack the proper means to ensure the healthy and basic development of young children. Additionally, cities are hostile environments for young children, thus public spaces do not offer a better environment for them to play and engage with others.

Uruguay Crece Contigo (UCC) is a national programme from the Ministry of Social Development, which aims to consolidate an integral support system for early childhood (Lustemberg, 2014). The name means 'Uruguay grows with you', referring to Uruguay's commitment to the growth and development of its children and to the potential that future generations have for the country. Although the programme has national scope, it prioritises populations from vulnerable socio-economic contexts.

One of its recent projects is called 'Barrios para Crecer' ('Neighbourhoods to grow in', referred to hereafter as 'Barrios'), developed to promote the creation of public playing spaces for early childhood. The main requirement set by the government in the development of this project was the use of co-design methods, looking for local solutions and engaging the community. The idea is to develop several projects in different cities across the country. This work is focused on the first three projects that were specifically designed for their respective locations by Barrios, in which I participated as a member of the design team. I was selected in December, 2015 and will present Barrios' three initial projects that I participated with as case studies for this paper. The projects have already been completed by the time of writing.

Teachers and Students from the Escuela Universitaria Centro de Diseño (EUCD, University School Design Centre) formed the design team. Health and social professionals from the UCC, the Ministry of Social Development, who work in the localities in question, provided support by engaging the community. Regional Municipalities provided the space and commitment to the project's construction and implementation (Fig. 01).

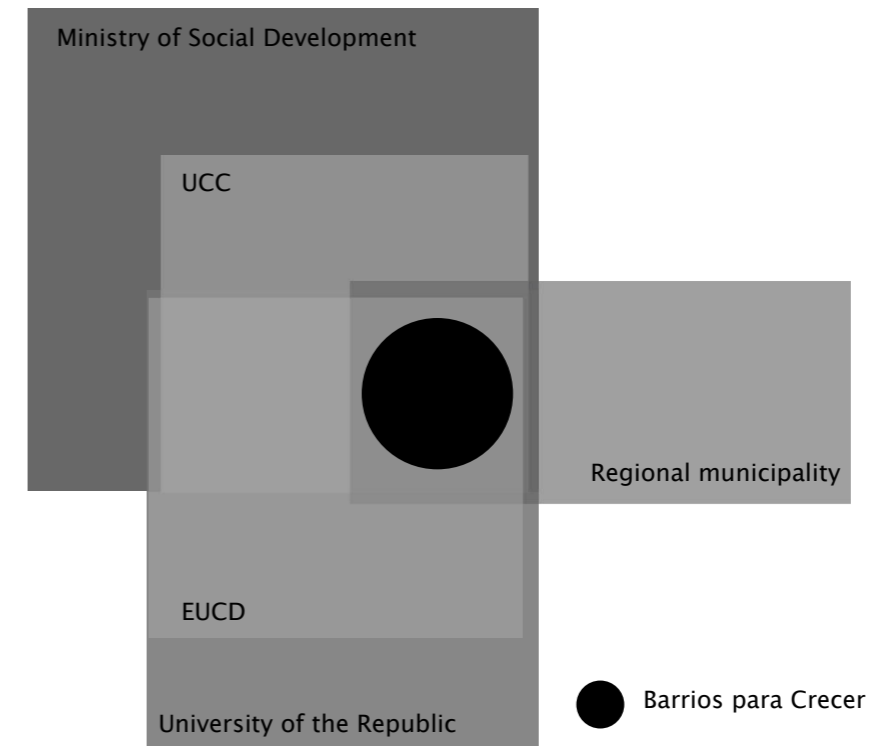


Figure 01: 'Barrios para crecer' is a project from UCC, Ministry of Social Development (MIDES). UCC provided technical support and funding for the design process. Teachers and students from EUCD (institution belonging to the University of the Republic), formed the design team. Regional Municipalities were responsible for providing the space and also for the construction. The community was involved in the process through co-design methods.

1.3 MOTIVATION

After having lived four years in Finland, I returned to home to the country of Uruguay. What impressed me the most about the Nordic country is the social equality that can be felt in the air. This equity was built by giving equal opportunities to every child in the country, even from before their birth. It is represented and made tangible, among other things, through the Maternity Package (Kela, 2017). From my perspective, the same care with which the package was created seems to be present in the design of its cities and recreation areas, at least in the two major cities where I lived, Tampere and Helsinki. By considering early childhood in the planning of public spaces, the young children become visible and significant; therefore, they are everyone in the community's business. Public policies that model a city's considerations about the use of its public space will indirectly influence the social awareness of the topic. This is the major change we can aspire to.

The public opinion and social awareness of young children in their community is a personal issue for me. I have always had an interest in early childhood and seized the opportunity when the possibility of working on projects wherein the topic could be used as case studies. I was especially sensitised to the theme as I had recently entered the infinite universe of motherhood and had a young child of my own at the time of the study. The experience of working with young children from vulnerable contexts has been very gratifying, although I must admit that at times it was more difficult for me and I became more emotional than I had anticipated.

Because I consider early childhood to be a very sensitive and personal theme which is difficult to face with a detached manner, and given the personal involvement I felt at times because I was also the mother of a young child at the time of writing, this document shall include personal opinions and observations which are written in first person. The fact is furthered by my involvement as a member of the design team: occasionally along the decision-making process and in other situations throughout the project I was required to make choices as a part of this team. However, while my emotions and individual experiences were unique, the choices made by myself and by my partners at the time should not be considered to be mutually exclusive as we were working as a unit for the common goal of co-designing public spaces for and with young children from vulnerable populations. Therefore, when I use the terms 'us' and 'we' over the course of this paper I am referring to our shared opinions and decisions as the unit of the design team.

This being considered, every member of the design team has their own role and unique contributions. I, for one, was particularly concerned with finding ways to focus on the participation in the workshops. I would remind the team about the expectations we were creating in the community and whether they would be fulfilled. My role was most active in the analysis of and generation of a new proposal to reframe the study as I was not completely satisfied with the results that had been achieved.

1.4 OBJECTIVES AND RESEARCH QUESTIONS

For my thesis, I participated in three co-design processes of the parks for early childhood in Uruguay. I intended to contribute my knowledge of collaborative approaches to design and engage the community and other stakeholders, trying to help the design team to consider and develop an emphasis on the younger children involved. In doing so I am interested in the following types of questions:

- When designing for early childhood, for whom are we actually designing?

I would like to test the challenges and the possibilities that arise when the focus of design turns into more complex dyad (in this case e.g. baby-carer) instead of a single individual. How could we build that space for dialogue that can examine and satisfy both of their needs?

- How to increase the voice of young children in the design and planning of public spaces?
- How would the co-design of facilities for public spaces with early childhood in vulnerable communities in Uruguay work? What can be learned from this experience to co-design in general?

2. BACKGROUND TO BUILD UPON

The background presented in this section makes up the framework from which the interventions conducted in the field were built. The approach to the local community and the design of the participative interactions were guided by the concepts that arose from the research discussed below and the remainder of the following framework.

2.1 PARTICIPATORY DESIGN AND CHILDHOOD

Urban space

“The right to the city (...) is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization.” (Harvey, 2008)

The main axiom of Modernist tradition on how to plan the city is that it must have a rational order. The figure of the ‘Great Planner’ with hierarchical thought has since prevailed. The result was the creation of highly functional cities where public spaces were designed without considering public life and how the people experienced their city. At the beginning of 1960s stances opposed to modernism emerged in reaction, these positions began to highlight the inhabitants of the cities. Residents thus became the focus of the design process (Gehl & Svarre, 2013). William H. White in New York, Christopher Alexander in Berkeley, Jan Gehl in Copenhagen were some of the environmental design pioneers, they were interested in understanding public life and its interaction with public space. Methods and tools allowing participation in public space have since spread and developed. Nowadays there are Non-Government Organisations (NGOs) and city organisations concerned with this synergy found in many cities, design tools can even be found on the internet

guiding how to collectively design a space. Cities like New York rely on a network of organisations that enables community participation in the design of public spaces. 'People Make Parks' is one such organisation which provides general information, advice, and even design tools with instructions on how to approach and apply them for citizens themselves. Examples of the participation of children in the design of public spaces are less frequent, although it is gaining momentum. It is possible to find some promising platforms that discuss children's participation in the design of cities. An interesting sample of it is the seminar 'The Century of the Child: Design, Children, and Participation' (Helsinki, 2015), which discussed the opportunities children currently have in designing their own environment in Helsinki. Another important event is the Child in the City conference that was founded in 2002, it is being held every two years in different European cities (Child in the City, 2015). The conference explores children's space and mobility, the right to play and their participation in the process of planning the city's environment and services (United Nations Convention on the Right of the Child, 1990). I aim to build upon the body of research about young children participation in the design of their environment, developing our understanding of it particularly in the domain of public parks.

Previous Research

Co-design methods with children have been presented in different ways, depending on the projects and degree of engagement necessary. For instance, the database "Designing with Children" shows a broad range of projects developed through children participation (Designing With Children, 2017). However, most of the projects refer to children at school or of high school age (ibid). From the 49 showcased projects, 7 of them reference children in early childhood (ibid). Nevertheless, those projects approached early childhood differently: some ages 0-2 were not even considered and all projects grouped them with older, more dominating kids up to the age of 6 (ibid).

All the projects regarding early childhood considered play, games and exploration as an active way of engaging children. Most of the project stressed the role of close adults such as teachers and parents in engaging the children by guiding or sparking conversations and supporting their physical actions (Designing with children, 2017). Common tools used were pictures, drawings, models and stories (ibid). "Woodland Shelter" project is an example demonstrating that even though they work with an age range of 0 - 18, the active contributors were those 3 years old and above (Woodland Shelter in Designing with children, 2017). It is emphasized the difficulties of categorising the activities of young children as they are easily turned into a game (ibid).

'Hernasaari masterplan' and 'Gubceva playground' are two projects in which involved children from different age groups, that still highlighted the need to engage children of early ages (Designing with Children, 2017).

'Hernasaari masterplan' involved children aged from 3 - 18, they worked in groups decided by their ages and where the youngest children worked with symbolic materials through storytelling, drawings and models. The project considered the importance of keeping the children updated about the different stages of development the project was in even after their participation had ended. The project finished with a public presentation with the children who participated (ibid).

On the other hand, 'Gubceva playground' engaged with children of earlier ages (from 1 to 6 years old) using similar tools such as the references to children stories (Gubceva playground, in Designing with Children, 2017). However it differed from 'Hernasaari masterplan', as they did not keep the children updated with the process but rather actively engaged them in the construction of the playground itself (ibid).

Technology

It could be argued that one can recall to their own experiences to understand what young children want and dream of. Even though we were all children at some point, everyone's context is different. Besides, being a child today it is different now than it was twenty or forty years ago. Changes such as interface design have completely altered how contemporary children interact with the world and has revolutionised childhood participation. Allison Druin, expert in the design of new technologies for children with children, has developed methods to inform the design process of intergenerational teams that include both adults and children. With twenty years of experience in the area, she firmly believes in co-design methods with children in an equal and intergenerational collaboration for two reasons. The first is a practical one: partnership with children during the design process of new technologies can lead to ideas and technological directions that would not have arisen from adults working without children (Druin, 2002). The second one is an ethical one: the possibility of empowering marginalised groups, which after all, children often are (Fails et al., 2012).

Although Druin's research successfully shows the relevance of partnership with children in the design process, most of her work and that of her collaborators has mainly focused on children 7 years old or older, with a few cases including children of 3 to 5 years old. Working with younger children requires more time and support for collaboration (Farber et al., 2002). Co-designing with babies and young children adds extra challenges too: overcoming communication barriers and managing the various developmental stages they experience in such a short period of time. I intend to build upon this body of work to extend our knowledge about young children as well as what influences their involvement may have on the design of public infrastructure and services.

Communication difficulties

Traditional design methods often require fluent visual and verbal communication between designers and participants. Participatory and inclusive design practices and research that include people with limited verbal skills or visual impairments in them are developing and adjustments are being made to address some of these challenges. Therefore, design research conducted for and with participants with cognitive or sensory impairments could provide us with strategies about how to overcome communication barriers when working with babies and young children. As it is difficult to predict what will work in cases of impairment, a great deal of flexibility is required (Hendriks et al. 2015). Even though researchers clarify that these considerations are important in every situation, they become notably more pronounced when working with persons with impairments (ibid.).

Hendriks' research depicted that the participation of proxies, such as parents or carers, is valuable as it helps improve communication and provides another vantage point in the co-design process. However, this inclusion of proxies can also create a power imbalance, threatening that the voice of impaired individuals may not be heard. It is the researcher's responsibility to be aware of this inherent conflict in the situation and find a way to overcome it (Hendriks et al. 2015). In the case of this project, the role played by the carer is also that of the 'end-user' and not only a proxy, however power imbalance may also be considered as an issue here. No one should talk on behalf of someone else since every individual's experience is unique and so is the way they perceive the world.

Studies in which autistic adults with limited speech and additional learning disabilities were involved in design processes emphasise that it is not necessary to develop autism-friendly methods. The designer's empathic understanding is the most important design method that needed to be developed (Gaudion et al. 2014). Rather than establishing preselected methods with specific aims and goals, the design processes were guided by the designer's own interpretation, leaving each stage to influence the next. Gaudion's research calls for 're-educating designers to directly perceive and experience the world not mediated cognitively through rational thought, but by re-awakening their own physical engagement with the sensory qualities of the world around them.' (Gaudion et al. 2015, p. 65). I plan to use these types of experiences as a resource to enhance the understanding of how to balance every person's voice in a participatory setting with young children and other stakeholders.

Vulnerable socio economic context

Empathic design focuses on everyday life experiences turning the role of designers as experts to the one of interpreter. Such approach is valuable for conducting interventions in vulnerable socio economic context (Judice, 2014). Although this, such approach was created in

Finland, country with particular social, economical and technological conditions, thus adaptation of such approach is necessary to address the needs and possibilities of the specific context – such as literacy and low-tech (ibid.). Judice states the need to “shift the attention away from products to community”

2.2 APPROACH TO EARLY CHILDHOOD

Early childhood lasts a short period (from birth to four years of age), but it is extremely demanding for the adults associated. Young children do not have the developed communication skills to express their desires adequately, and parents lack the time, energy and opportunities to contend and 'translate' their child's every want and need. Therefore, it is a common responsibility to provide platforms to enable dialogs where their voice can be heard. The challenge is how to carefully and effectively do so. In early childhood, especially between 0 to 2 years old, the activities these children are able to perform on their own are limited, thus the adult in charge (carer) becomes a co-participant of the child's action. There is a physical and emotional symbiosis between child and carer. This is made evident by vocabulary in the Swahili language that expresses this concept in a single word: “Mamatoto”, meaning mother-baby. Mamatoto refers to the notion that mother and baby are not two separate people, but an interrelated dyad. A young child needs the adult to satisfy his/her basic needs but also to feel safe, the baby is not only a baby but a part of greater unity: the baby and the carer. Due to the conditions in this stage of life, it is not possible to understand one role without the other; therefore, during parts of childhood those involved in this unity are not, or at least barely, dissociable (Ainsworth, 1965).

The link, union and interdependency between child and carer is undeniable. In this light, it may be considered that when designing for early childhood, we are designing for combination of the child with the adult in charge. Considering the care and affection in the relationship, it is a highly vulnerable position for the child. This position has an obvious power imbalance. Even though this power could be abused, the child cannot be considered isolated.

Seeing early childhood through the lens of the unity mother-baby (i.e. adult in charge, or, carer - young child) implies that participation in design process could be framed more productively in this direction. Instead of working with the individualist idea of a 'user', it will require a wider perspective in which a dyad is involved. Moreover, the traditional conception of 'baby cared by mother' also needs to be broadened to include other carers in a possible dyad. Fathers, grandmothers, older

siblings, and babysitters are some of the other various carers-types who may be in charge of a young child. These considerations could be framed and developed by citing work from postmodern and feminist positions. Throughout this work I will use the term 'end-user' to refer to the dyad carer-young child. Although this work considers participation in parenting as a role that is not exclusive to the mother, in many cases the expression *mamatoto* or mother-baby appears as a synonym for 'end-user'; because the context in which the case studies are conducted the one who takes care of the children is usually the mother. In vulnerable socioeconomic communities in Uruguay the role of the father or other family members as caregivers is very exceptional.

Moreover, the term "*mamatoto*" is more tender and empathic than "end-user"; I believe the subject deserves that freedom of speech. Besides, I chose to prioritise this expression to refer to the dyad since, being a word of foreign language, the gender connotation does appear to have a bias. Likewise, when referring to a *mamatoto*, it feels more consistent and has more range with early childhood than the title 'baby'.

3 METHODS

3.1 METHODS AND DATA COLLECTION

This work aims to obtain insights into how to work with early childhood in participatory settings so real life projects will be utilised as case studies. During the design process, participatory workshops and interviews were conducted and analysed focused on the unity, or, *mamatoto*, since the focus of this work was then co-design process, directed at giving a voice to early childhood.

I took a pragmatic rather than theoretical approach to the study of the topic. Case study methods and participant observation were used to achieve first-hand insights about the community and its context (Yin, 2004). This work developed in the context of design research, meaning that what was to be studied was the process of design: what is being done. It was grounded in action research, as the concrete goal was to design a physical space for young children, but the ultimate goal was the empowerment of the local community and creation of social change through it (Koskinen et al, 2011).

Three projects with similar characteristics in different cities across Uruguay are used as case studies. The same design team participated in every project, with individual exceptions. It was an excellent opportunity to iterate and experiment new approaches inspired by previous research and experiences and to analyse whether it could improve collaboration or not.

The idea of working with the 'unity', substituting individuality of the concept of end-user for a dyad was not a simple exercise for diverse reasons. My intention was to analyse these causes and explore possible solutions to the difficulties I have found, documenting the experience and our observations from the process.

The data for this work has been collected throughout each co-design process. Observation and field notes were taken throughout the process. The processes include internal meetings among design team members, meetings with local actors and stakeholders, co-design workshops, informal conversations with community and in one case, home visits. The

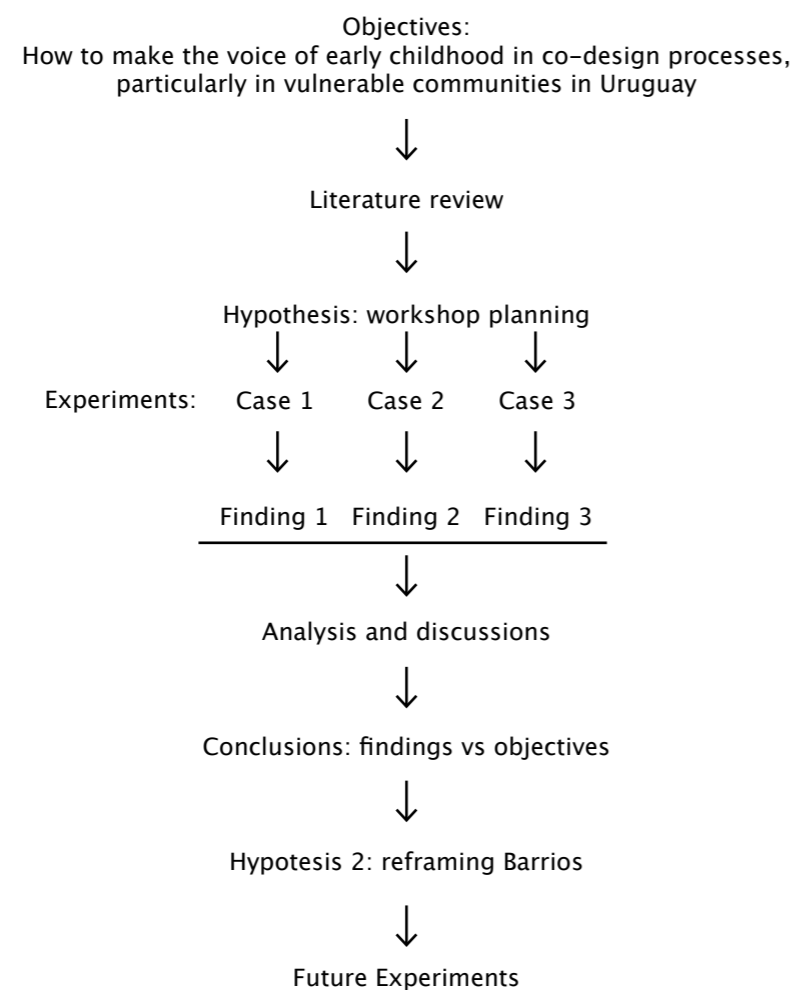
concrete outcomes of the design processes (i.e. the ideas for the design of the playground and the final design) were the focus of the projects, but are not the main focuses of this work, even though they will be presented in the cases when considered relevant.

3.2 RESEARCH OVERVIEW

The three case studies utilised for this work functioned as experiments to demonstrate the hypothesis: **Hypothesis 1**- Through our work applying co-design methods, we would be able to amplify the voice of those in early childhood.

The answer is that although having achieved a few positive results, various aspects appeared to be hindering their voice being heard. The conclusion to which I arrive is that the function of the experiments need to be adjusted to control for the limitations detected. The new hypothesis, **Hypothesis 2**- proposes that with the adjustments done, better results will be obtained. To prove it, a new experiment is designed considering these modifications. This experiment will not be conducted within the framework of this paper, as it extends beyond its scope and timeline. (see figure 02)

Figure 02:
Research structure
of this study.



4. INTO PRACTICE

The case studies that follow are co-design projects from Barrios and they focus on the development and design of playgrounds for early childhood. These co-design projects were orchestrated by three interacting bodies of the government: the UCC, the EUCD and the County Municipality in question as each of them were in a different city and region of Uruguay: Florida, Ciudad del Plata and Villa del Carmen. Each case will be described and presented in chronological order followed by a preliminary analysis of the case.

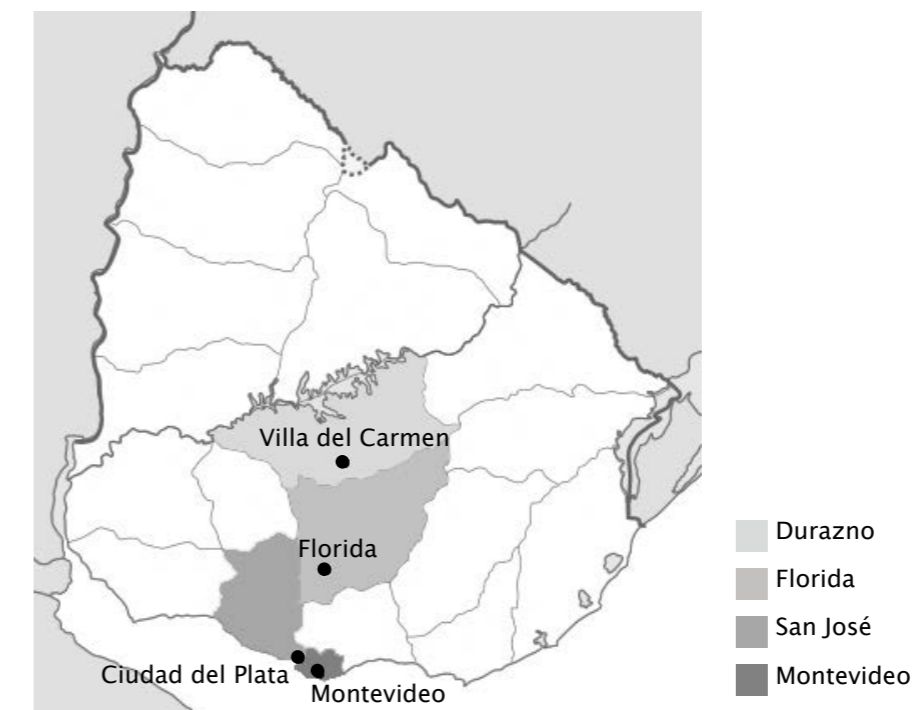


Figure 03: Map of Uruguay showing the location of the cities in which the case studies focus (Ciudad del Plata, Florida, Villa del Carmen) and the capital city of the country (Montevideo).

There are three levels of government in Uruguay: Central Government (country), Regional Municipality (county) and Local Municipality (city). The actors directly implicated in this project were the County Municipalities. County Municipalities assigned a representative who was generally an architect, to collaborate with us. In some cases, City Municipalities were also involved. Besides this institutional framework and depending on the case study, different local organisations participated in the process with varying levels of involvement and commitment.

Barrios was initially created through an agreement between UCC and EUCD to be applied in different cities across the country and were henceforth governed using a similar pattern of involvement throughout. UCC made

further agreements with the involved Regional Municipalities regarding the construction of the playgrounds. Regional Municipalities provided the future location of the project, as well as financing and overseeing its construction phase.

The members of the design team (teachers and students from EUCD) guided the co-design processes and remained the same throughout, with minor exceptions as specified later. UCC had a different regional supervisor and two local operators specific to their district. These actors had closer and more frequent contact with the local community and specifically with families from low socio-economic or vulnerable environments. Every involved member from UCC had an educational background in health and/or social sciences with early childhood and families as a main focus. UCC's institutional contact remained constant as they played pivotal role overseeing the coordination of the project at a macro level.

The UCC project coordinator instigated the first contact between the design team and the UCC regional supervisor of the district, who would remain our primary contact with the locality. The design team became acquainted with the regional supervisor and local operators during visits to the city. In every case, local operators from the UCC oversaw the inviting of participants to attend the workshops, as they had the channels to establish contact with them. The design team defined the participants' profile and designed their roles and activities in the workshop. The activities and material used in the co-design workshops were produced explicitly for the use of the project by the design team. This was due to the lack of previous materials on co-design with early childhood because such materials did not previously exist, but on the positive side it meant that our materials were specialised and elicited no ambiguity.

When the presence of children was foreseen we stipulated that a workshop could have a maximum duration of only two hours. There was a 15-minute break in the middle, with a healthy snack such as fruits, yogurt or homemade cookies, as was consistent with UCC's current attempts to promote in their work with families. Photography was used to record the proceedings in every workshop for efficient revision and direct observation. Because the focus was on young children, permits were issued to the parents and/or care givers to sign, authorising the use of said images for the purposes of the project.

Children's playgrounds require safety measures to ensure healthy and secure play in every sense as it promotes development while complementing their physical integrity. Uruguay does not have any safety regulations or standards of their playgrounds, thus for the products developed in the presented cases the design team used safety guides from USA (Consumer Product Safety Comision, 2010).

This paper is interested in the co-design processes the following case studies present rather than their concrete outcomes, the final design of the playgrounds. The three design processes that are portrayed range

from the Ideation phase to Technical Definition of the Final Products, each of which corresponds to the stages and tasks assigned to the design team. They will in turn provide some clues about how to give a voice to early childhood in the design process.

At first glance some cases could be considered as flawed due to the low attendance of young children and their families. In addition, the few present were hesitant in participation. Ultimately, the decision to include them was made because of the lessons they can teach as they provide a reference point for what to and what not to consider in the attempt of co-design with early childhood.

4.1 CASE STUDY 1: FLORIDA

The city of Florida is the capital of the County Municipality of Florida with a population of 33,640 inhabitants, according to the 2011 census. It is located 100 km north of Uruguay's capital, Montevideo. In 1809 the Villa of Florida was founded and in 1894 its status was elevated to city. The city also has some national importance because it was in Florida where the "Declaration of Independence" was first declared and has since become a place of historic importance for Uruguayans. Florida is known for its pilgrimages to the Virgin of San Cono, as well as for its important rural and equestrian activities. I believe these factors are important to note due to their symbolic and representative depiction of the cultural attitudes present in the city.

As this was the first case for Barrios, it was considered the pilot project. The design team was composed of seven members including teachers and students from the School of Design. The Regional supervisor and local operators from UCC, who work for the city, provided support by engaging the community. The County Municipality of Florida provided the space and was committed to the construction and implementation of the project.

A space was left for a playground with considerations of early childhood and were included in the designs of an exceptionally large new square that was being built. The square was to be located in a previously unused plot of the city in an area where many neighbourhoods converge. The square was a project promoted by the County Municipality of Florida, that hired an architect for its design and construction.

PROCESS. The complete design process involved various actors with different methods of working (Fig.04). As a first approach to the topic, the design team met authorities of EUCD to introduce each member of the team, discuss the objectives of the project and establish a working strategy. The next step was to travel to Florida and visit the area where the

playground was planned to be built and to meet with the key actors from local institutions. It was then that the participants arranged a date for next meeting which would be the first co-design session.

The design team arranged internal meetings before and after co-design workshops in order to plan and analyse them. They were also to maintain focus on the role of play in early childhood development and to public space. The workshop aimed to investigate the culture of the community and to obtain insights and ideas for the future playground. The design team processed and interpreted the material collected from the workshops synthesising it in an iterative process. Therein, based on the material and interpretation, the team distilled and completed the phase of Idea generation that was initiated in the co-design workshops. The following phases of the design process took place mostly within the design team as well as their alternating meetings the authorities of UCC and Architect of Municipality of Florida.

The blueprint of the square where the playground for early childhood would be located had unique formal and spatial features, which had to be considered during the design process. The design team met with the architect in charge of its design and construction on several occasions in order to share the ideas generated and receive his feedback. The proposed design of the playground attempted to condense the ideas and points of view of every party involved, from the architect with his global project to the insights collected during the co-design workshops.

Three co-design workshops were conducted in the city of Florida. The first one was planned with the participation of authorities and local actors from organisations linked with early childhood and the Municipality. For the subsequent two workshops, besides the participants of the first, young children and their families were invited. Figure 04 shows that mamatotos and local actors were approached only at the beginning of the design process.

Below I will describe the workshops that were conducted to integrate the community into the design of the playground for the city of Florida.

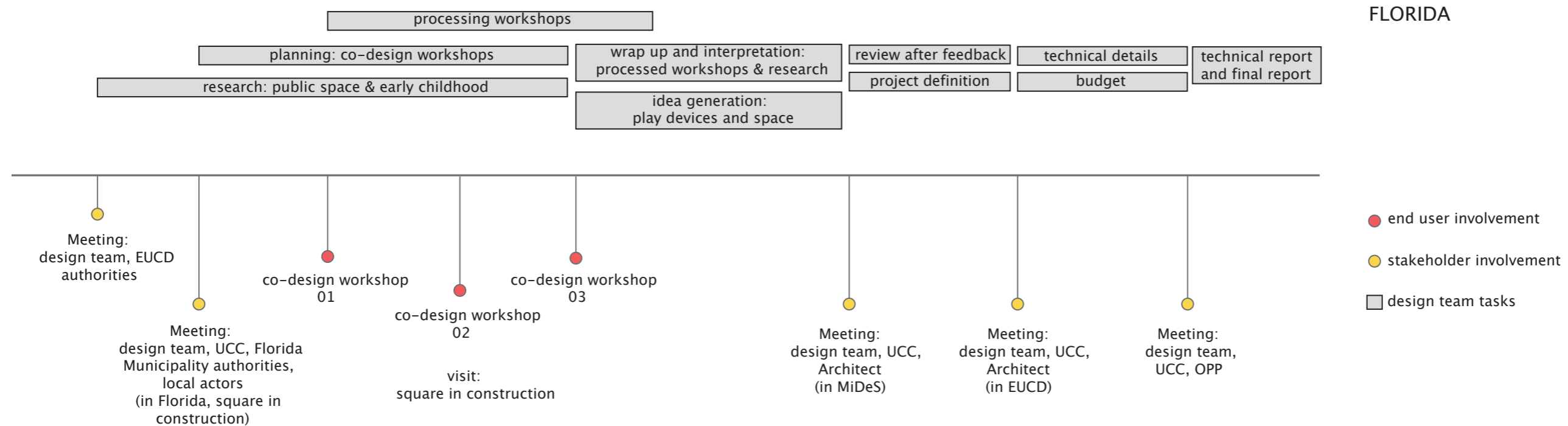


Fig. 04: Design process timeline showing instances of stakeholders' participation, Florida case.

4.1.1 FIRST CO-DESIGN WORKSHOP

General information

Date: 03 February 2016

Location: Public Primary School N°8, Florida

Participants: Actors from local institutions and organisations.

Total number of participants: 24 participants including 8 members of design team

Materials for the workshop

Digital presentations, computer, projector

Papers, post-its, tape, pen, markers

Prints: activity plan and 'secret guide' –one per design team member-

Signs for identification

Photo camera

Baby Soft Ball



Figure 05: First co-design workshop, Florida

The first workshop was conceived with an institutional profile. The participants were authorities and representatives from education, health and social sectors, municipalities and governmental organisations. The purpose was to first approach the area and its context through these key actors to better understand how to involve and approach young children and their families living in Florida.

The objectives of the first workshop were: to introduce the project Barrios and its approach to the project through co-design methods; to gather organisations which were directly or indirectly involved with the project, such as the institutions and design team; to obtain insights from the experience of local actors and their views regarding the future playing area. It was also important to create a setting for collaboration aligning the participation with the interests of the institutions.

Once every participant had been welcomed and introduced, there were presentations to clarify what we were there for, how we work and what we wanted from them. The architect of the square, the design team and the EUCD authorities were in charge of the presentations and allotted time for questions after each one. The next activity was the central part of the workshop and it was conducted in teams. The groups were formed spontaneously through an icebreaking routine so that each group was integrated and a friendly atmosphere was promoted for every participant. Each group included at least one member of the design team, to obtain first hand data. This strategy was followed in every workshop.

The central activity of the workshop focused in four main themes -Safety, Community, Dynamics and Development. Group work revolving around these themes were guided to obtain insights, problems, suggestions, ideas, and possible solutions for the future playground. The participation was based on verbal exchange with note-taking and post-its capturing main concepts. The reflections that arose from the group exchange were called "co-ideas". This concept was adopted to designate the outcomes of every subsequent workshop.

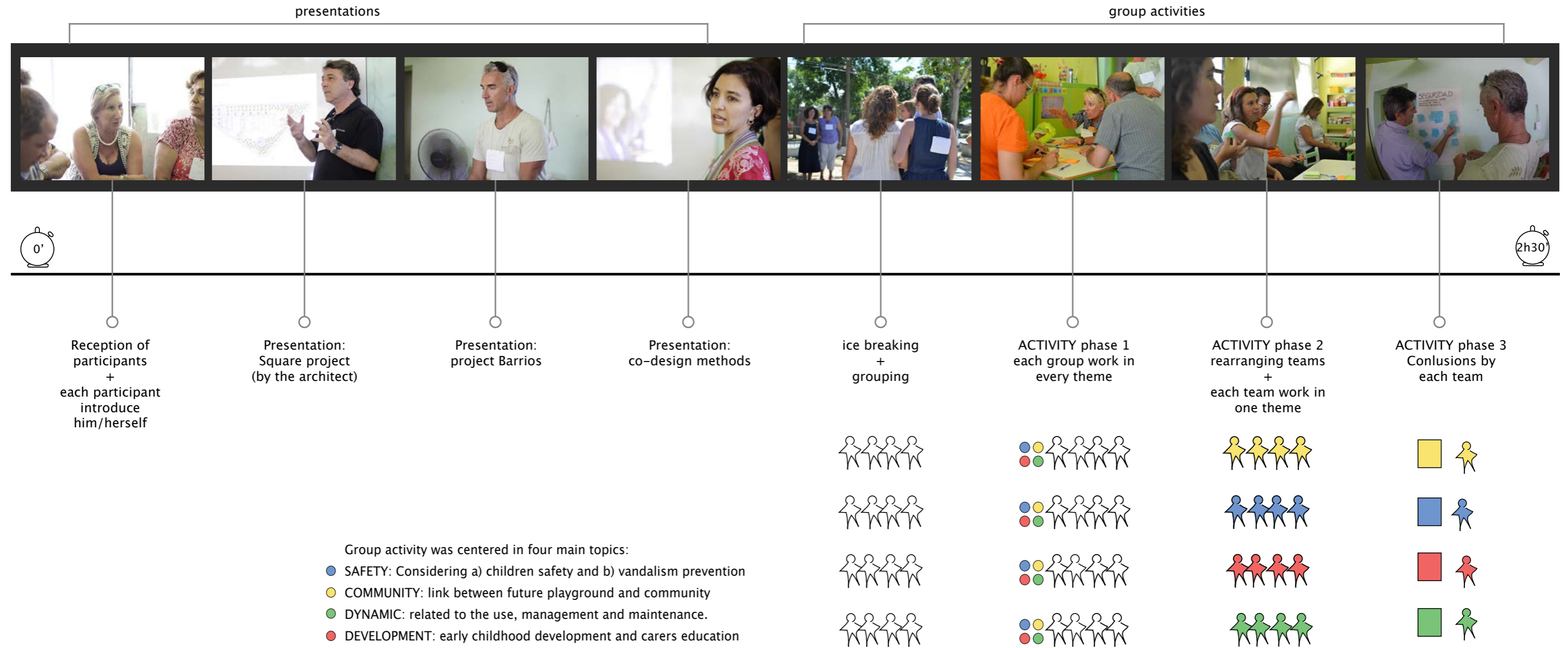


Figure 06: Florida. workshop 01: activity plan.

The activity had three phases:

PHASE 1. The first part of teamwork centred on discussions around the four main themes: Safety, Community, Dynamics and Development. The four concepts were explained briefly and presented to the participants in posters:

SAFETY: Considerations regarding a) children safety and b) vandalism prevention

COMMUNITY: Link between future playground and community

DYNAMIC: Related to the use, management and maintenance.

DEVELOPMENT: Early childhood development and carers education

Every group was asked to exchange their impression of one topic at a time, mentioning all themes. Five minutes were allocated per topic which despite being a short time it has the potential to generate novel commentary and ideas. Design members devised the role of a 'secret guide' to pose questions in case some of the central aspects we were concerned with were not mentioned.

PHASE 2. Rearrange Groups: a member of each group continued working on one theme, we called them '*theme specialists*'.

To rearrange the groups, a member of an initial group who was interested in representing a certain theme met with other representatives of the same theme from other groups. They had some minutes to share what had been discussed in their specialised groups as well as to compare and combine ideas and the content of their post-it notes regarding the theme. They then came together again to compare notes and the main points of their discussions to prepare for the presentation of conclusions in the next phase.

PHASE 3. Presentation of conclusions

Each group presented the conclusions of their theme.

Observations and initial findings: Workshop 01

The workshop was held in a positive atmosphere of exchange. The discussions proved that early childhood and its participation in the design of public space involves different views and multiple aspects. In this sense, we can say that it was a very profitable exchange of 'co-ideas' in which each representative was able to freely express their points of view. The participants gave positive feedback from the experience.

The initial presentations went on longer than expected and therefore the time for the planned activities was a little short, the objectives of the workshop were fulfilled in their entirety.

The representatives of the County Municipality, who appeared sceptical about our working methods involving participation, presented their project for the square and retired shortly after the main activities of the workshop began.

Before the end of the workshop participants planned the date and place for the next co-design workshop, to which end users would be invited. At the end of the workshop the design team also visited the location where it was going to occur.

4.1.2 SECOND CO-DESIGN WORKSHOP

General information

Date: 16 February 2016

Location: CAIF (Attention Centre for Infancy and Family, for its name in Spanish) Ceviuir, Florida

Duration: 2 hours

Participants: Families with young children and representatives of early childhood institutions.

Total number of participants: 23 including the 8 participants of the EUCD. Number of young children: 7 -some of them left to their classrooms at the CAIF after a while-

Family: 6 mothers of specific population, 1 grandmother, one older sister

Materials for the workshop:

Cards game -experiences and emotions-

Papers, post-its, tape, pen, markers, drawing material, materials for models

Prints: activity plan and 'secret guide' –one per design team member-

Signs for identification

Photo camera

Baby Soft Ball

The second and third co-design workshops were held at CAIF Ceviuir. Participants were representatives of institutions and families belonging to the influential population clusters of the CAIF. The idea was to have a first approach to the end-users. The objectives were to get to know each other, exchange experiences, share small stories and generate 'co-ideas' for the future playground. The two main activities planned for the workshop were group activities. Groups were then formed at random by throwing and catching a ball and a counting activity.

During previous conversations with experts in the field of early childhood it was mentioned that in vulnerable populations there was little responsibility felt by the carer that they should stimulate and play with the child or perhaps lack the conditions to do so. Experts expressed that it would be desirable to promote child-carer bonds through the devices that were to be designed, considering an interaction between them as a requirement and pre-requisite for use of the device. Thus, we considered that it was relevant to review the nature of the activities *mamatotos* would be inclined to engage in play together and those in which they had no interest.



Figure 07: Florida. Second co-design workshop. (Picture used with the consent from the family)

Following these concerns, the design team created “fill in the blanks” cards, related to experiences and emotions. The first activity was a game where participants sat in a circle and had to fill out cards describing events they had experienced with their children and the emotion associated with said experience. The intention of this exercise was to obtain insights into the families’ everyday lives as well as detail the child-carer relationship through these small stories. Each team was sitting in circle with a bag full of cards. When the music was on, the group had to pass the bag around the circle and when the music stopped, the team member who had the bag in his or her hands had to take out a card and share an experience as guided by the card’s content. A member of the group was designated to as responsible for filling out the card to avoid uncomfortable situations as it was likely that participants had varying levels of literacy.

The second activity focused on past times enjoyed by the child, past times enjoyed by the adult, activities they can enjoy together, and activities that the adults enjoyed in their childhood. Every group discussed these enjoyable moments:

Activity 2, Phase 1- The objective of this activity was: to understand what young children from this context like to do while considering the adult’s needs or preferences; to find out which activities they already practice and enjoy together; to sensitise the adult to the desires of their child through positive memories of their own childhood. Through this, we intended to collect information and also lay the foundation for next activity: generate and discuss proposals for the playground.

Activity 2 Phase 2- Based on what had been shared previously, every team created a playground reflecting the core concepts that had emerged. The use of drawings and models were available to represent their ideas for the playground. And Finally, each group presented their ideas for the playground to others.

Observations and initial findings: Workshop 02

The facilities at CAIF Cevir aided the performance of the workshop not only because it was possible to develop the workshop accordingly, but also because the users were engaged in an environment that they know and where they feel safe. Hence, there was a good work environment as the users could express themselves more freely because of the built trust that they already have with the Caif personnel. The duration was enough to carry out all the activities. The objectives were not fulfilled as planned since the design team expected the presence of more end-users. Local actors from the project took on a more active role in the working groups while mamatotos adopted one that was more passive.

The activity of “experiences and emotions” turned out to be a bit long and repetitive, since the differences of emotions between some cards were subtle and not easily perceived. We concluded this as a problem with the materials. The dynamics lacked fluidity and the results did not provide much information. The issue of emotions was perhaps too complicated and personal to have dealt with so early in the workshop. Starting with such a personal and invasive activity does not seem to have been the most appropriate as no bond of trust had yet been formed between us.

The final activity created different results for each group, especially in the initial phase of proposals creation. We had to significantly guide two of the groups because nothing was being generated; in another group one member took the initiative with an existing idea and we had to encourage others to contribute; in a further group many ideas were proposed however all of them were loose and lacked structure or main argument. The outcomes were very varied but all contained concepts for at least partial consideration.

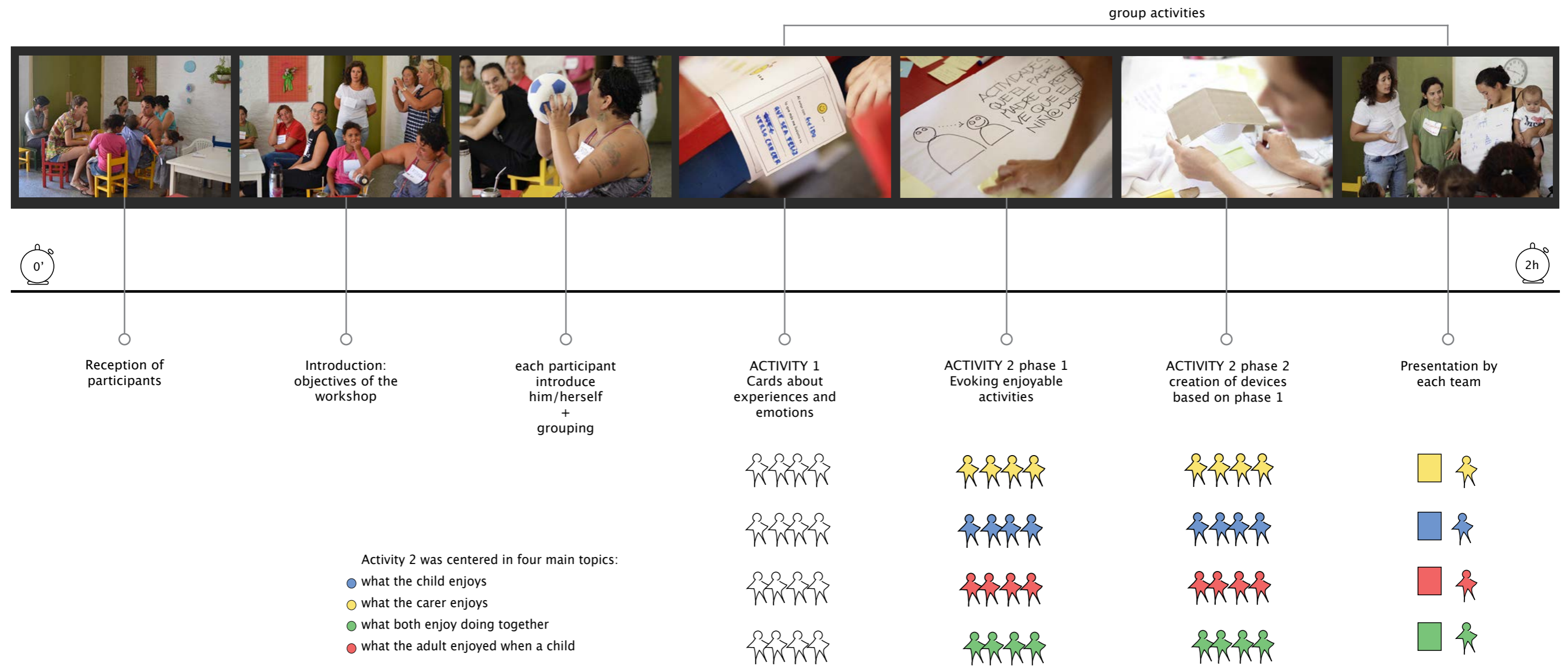


Figure 08: Florida. workshop 02: activity plan.

4.1.3 THIRD CO-DESIGN WORKSHOP

General information

Date: 02 March 2016

Location: CAIF Ceviuir, Florida

Duration: 2 hours

Participants: Families with young children and representatives of early childhood institutions.

Total number of participants: 20 including the 8 participants of the EUCD

Number of young children: 1 baby -8 month-old-

Familiy: 2 mothers, 1 older sister

Materials for the workshop:

Game material: 'Mimics of actions'

Personas cards

Digital presentation, computer, projector

Papers, post-its, tape, pen, markers, drawing material, material for models

Prints: activity plan and 'secret guide' –one per design team member-

Signs for identification

Photo camera

Baby Soft Ball

Figure 09: Florida. Workshop 03: second approach to young children and their families



The third and final workshop of Florida project had the same profile of participants as the previous one. Young children and their families were invited, as well as the institutional actors.

The general objectives of this workshop were similar to those in Workshop 2, but with more emphasis on working with sensory stimulation through physical action. It was necessary to experience the physical actions that would later be associated with the equipment in the playground. After introducing participants and splitting the groups, the workshop began by proposing actions that could be used for future devices such as rotating, jumping and balancing. This activity, in addition to breaking the ice, allowed us to think of actions beyond those that had already been conceived, since the only tools we could rely on were our bodies and interaction with others. The activity was carried out playing a game using mimicking and gesturing to represent our actions. Each group pulled out a piece of paper with an action on it and had to act it out as a team. The only tools they had at their disposal were their own bodies and that of their teammates. The rest of the teams were asked to guess what action being depicted was. After it, we displayed a presentation of actions performed unconventionally. The purpose was to avoid preconceived ideas for the playground devices while preparing them for the next activity.

Subsequently, each group proposed designs of playing devices based on the depicted actions and with the use of personas (young children of certain age range and characteristics). In addition to the proposals generated by each group, team members rotated around other groups in order to provide a commentary on their proposals. This served as input to further develop their initial proposals. The final proposals were presented in drawings, models, or both and were presented at the end of the workshop.

Observations and initial findings: Workshop 03

The workshop had very little attendance from young children and families: one baby, two mothers and the rest of the participants were workers from childhood institutions. The limited number of mamatotos posed a problem with the idea generation from the co-design method. Since the ideas developed in this workshop came from people who do not have full time experience with young children in their context, they could not express this end-user's experience, needs or desires accurately as their perspective was inherently external. Even so, this stage of co-design was productive and generated many ideas with great potential.

Activity 1 was an inspirational activity. The mimicry of actions made for a great icebreaker and engaged the participants in the theme of the workshop. Since the activity was very dynamic and generated laughter it created a very good atmosphere for group work with great spontaneity. The activity wasn't complex and all attendees participated with enthusiasm. Here the attending baby had his 'fifteen minutes of fame' as it was simple



Figure 10: Florida. workshop 03: activity plan.

and enjoyable to include him in the performance, while it was not so easy with the other activities.

The CAIF was chosen as the location of the last two workshops because of its close link with the families of the young children who were there daily to try to promote their attendance and subsequent participation. After the previous workshop the design team talked with the CAIF director to understand the low attendance of young children and their families in both workshops. She explained that the parent had a lack of interest for participation in general, regardless of the field. "They try to get out. Only if you give them food or a cell phone they will come, not if you make them think". Apparently the CAIF itself has a lot of difficulty to involve families in activities they organise for children and their referents. Even in the adaptation period caregivers tried not to stay. The CAIF staff said that the population in the city were very passive, also stating that they are not accustomed to planning or organisation. Though they say they will participate, later they have forgotten or haven't woken up early enough to arrive on time. Furthermore, many mothers are unemployed and have a messy schedule and the ones who work can't attend the workshops on weekdays.

The question we can then ask is how and where these workshops should be organised to motivate the community to participate? This reality presented a real challenge to the design team, since our connections to the community from the UCC failed at engaging them. The distance and the time available to complete the project schedule did not favour the idea of additional workshops to try new methods of engagement. Unfortunately, we had no possibility to compare the opinion of the director CAIF with that of the families.

A noteworthy fact was that there seemed to be some confusion regarding the objectives of the workshop. A representative of an institution for early childhood expressed her discontent with the activities as she believed that she had come to do arts and crafts. We take from this that there must have been some degree of miscommunication either between the community and the local organiser from the UUC or unclear invitations, regarding the aims and objectives of the workshop as well as the collateral understanding of the co-design project.

Closing Thoughts: Florida case

Since Florida was the first case of the co-design project the design team had to spend more time tackling some issues that were fundamental to be individual cases in the next steps of the process. As such we did not have to spend as much time on the following issues because they had pre-considered and assumed as constants of the project: research on early childhood development; play; about playground and public space; safety standards; co-design; and how to work as a team.

The creation of co-design tools generated by the design team for the workshops provided a better understanding of what objectives ought to be addressed in the upcoming ones. Thinking about the activities and how to carry them out promoted a greater problem analysis within the team. In Florida we found a local actor, the psychotherapist of the CAIF, who was instrumental in obtaining a high attendance and the participation of children and their families in the workshops. She participated in all three workshops and had a very active role in engaging the families to attend the workshops and encouraging them to participate during the workshops. She had a very strong bond to the children and their families, as well as a great commitment to her work.

We found these types of actors to be of paramount importance, although they do not have a role or task officially assigned to the project and nor may their institution be directly involved in it, they can make a big difference in enabling early childhood participation. The repeated occasions in which she had participated in community activities in Florida enabled her role as an effective link between the design team and the community. We worked closely with her and received more support from her than from some of the UCC actors.

Even though some meetings were organised with the representatives of the County Municipality who were in charge of the square's development and design project, communication with them was often difficult and haphazard. Apparently, there was no real interest in our project despite it never being clearly stated. The public square has already built at the time of writing and the area for early childhood was not included. The agreement between UCC and the County Municipality was resolutely ignored.

This could be explained by the existing political tensions within these institutions. UCC is a program of the Ministry of Social Development that was promoted by the former President of Uruguay, José Mujica, during his governance. The UCC continues to rely on the support of the current central government in power that is also from the same party. The County Municipality of Florida is held by the opposition party, therefore it is no stretch to assume that there are issues with communication and accountability.

4.2 CASE STUDY 2: CIUDAD DEL PLATA

Ciudad del Plata is located 35 kilometres northwest from the capital city, Montevideo. It is a relatively new urbanization, formed only in 2006, located in the regional municipality of San José (see map in Figure 03), which developed because of the urban expansion of Montevideo’s outer neighbourhoods. These were previously independent subdivisions of land that spontaneously joined, becoming a single populated centre. This fractured origin has resulted in the lack of a sense of belonging and an inexistent cultural identity within Ciudad del Plata. However, there is a higher identification within the independent neighbourhoods, such is the case with Delta del Tigre, the neighbourhood in which the playground will be located. The socioeconomic level of this area is defined as medium-low and low, with a high proportion of informal settlements close to the square.

One particularly interesting feature of this neighbourhood is the absence of sidewalks and consequently the lack of safe transitional spaces for kids outside homes. Another feature is its disaggregated urban configuration of combined houses with only one floor. The public primary school, located on the same block where the playground will be built, is the only construction in the area that has two floors.

The area next to the public primary school where the playground for early childhood will be situated has a triangular shaped terrain. The space was a previously unused area with trees and sand and without infrastructure. The school, with a clear prominence in the neighbourhood, has a neutral facade that is integrated harmoniously into the environment. These unique spatial and design features had to be considered in the design of the playground. The school appeared to be a successful example of intervention in the neighbourhood as it was a relatively new structure, inaugurated only two years before the study was conducting. It is a Full-Time School, which means that children have the option to go double time (mornings and evenings) and receive a lunch at school. This type of educational institution tries to generate a family environment for the child and a strong bond with the community.

Besides UCC, EUCD and County Municipality of San José, the other actors directly involved in this project included the City Municipality of Ciudad del Plata. The design team remained mostly unchanged from the previous project with the exception of two students whom were unable to join. The local municipality planned to build a playground for both early and middle childhood. With the aim of creating a coherent space and ensuring the involvement of the community, the design team took the responsibility of designing the entire playground, even though our immediate focus was only with early childhood. The design for the middle childhood was less detailed so the team of architects from the County Municipality were to continue working on completing it. This way, the County benefited from a more coherent approach for their whole project.

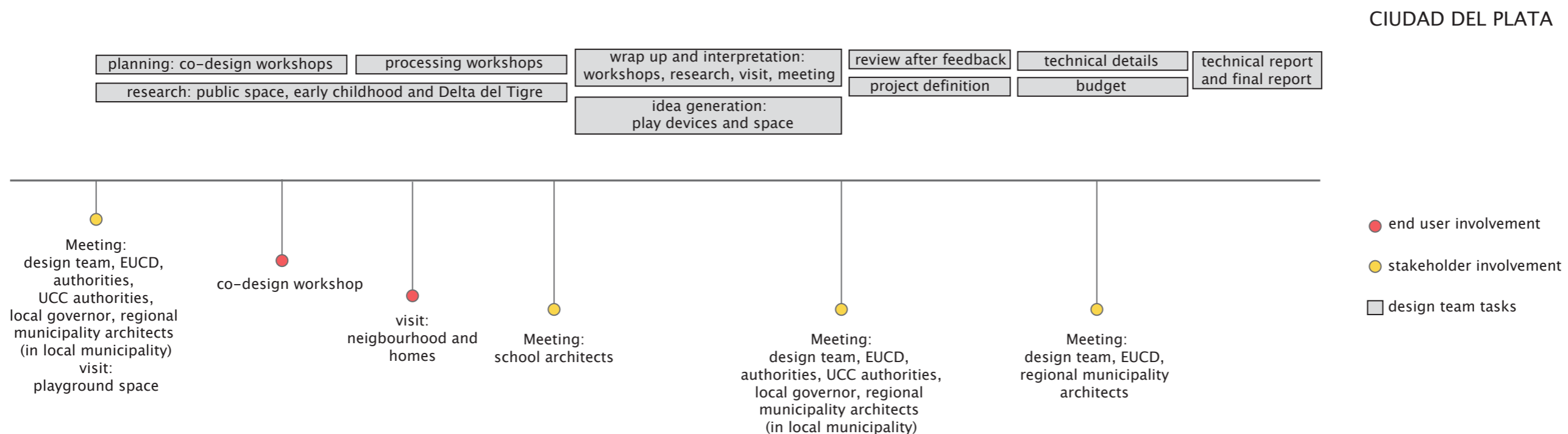


Figure 11: Design process timeline showing instances of stakeholders’ participation, Ciudad del Plata case

PROCESS. As in the previous case, the design process went through several stages and used different actors. The process began with an introductory meeting between the institutions directly involved: authorities of UCC, EUCD, County Municipality, City Municipality, and the design team. Later we organised the co-design workshop.

From the beginning the UCC authorities stated that there was a limited time available for participating experiences and workshops. For this reason, a unique participative workshop was conducted and it was complemented with a tour around the neighbourhood visiting homes to collect further insights from the families about the importance of play in early childhood and their current connection to the space of the future playground using a questionnaire. We held a meeting with the architects of the neighbouring school in order to capitalise on their experience with intervention in the neighbourhood, considering that it was a relatively new project and highly regarded by the local community.

The design team processed the outcomes of the co-design workshop, the exchange with the local community during the walk in the neighbourhood and the meetings with other stakeholders as UCC representatives, City Mayor and Architect from County Municipality.

In Ciudad del Plata case, as also happened in Florida case, participation only occurred at the beginning of the process. Thus, the design team found it challenging to capture the essence of those interactions in a concrete project for the playground (Fig. 11).

Described below: the co-design workshop and the walk through the neighbourhood.

4.2.1 CO-DESIGN WORKSHOP

General information

Date: 01 June 2016

Location: Public Primary School N°121, Ciudad del Plata

Duration: 2 ½ hours

Participants: School students, schoolteachers, school director, parents, representatives of local organizations and design team. The governor of the city attended but just for few minutes and did not participate in the activities.

Total number of participants: 23 including the 7 participants of the EUCD

Number of young children: 3

Familij: 3 mothers

Materials for the workshop:

Papers, post-its, tape, pen, markers, drawing material, material for models

Pennants

Prints: activity plan and 'secret guide' –one per design team member-

Photo camera

The workshop took place in the aforementioned primary school. The idea of organising the workshop here was a strategic decision with the intention of working directly the spatial arrangements of the plot in which the playground will be located. In addition, the school's strong link to the community made it a considerably advantageous setting.



The objectives of this workshop were to get to know each other and to co-design a space for young children (and eventually of all ages) to meet and play next to the school. This workshop prioritised participation from residents of the neighbourhood and the expression of their desires. Three linked activities were organised through prior teamwork. The first focused on the different age ranges that will utilise the playground: discussions regarding suitable and enjoyable activities for each distinct age group. The second was centred on suggestions for playing devices and apparatus considered in the previous discussion (Activity 1). The third and final activity dealt with the spatial aspect of the playground's plot, so the groups ended up outdoors in the area of the future playground despite the cold winter's evening and choosing the spot for the suggested equipment and marking it with a pennant.

Figure 12: Co-design workshop: participants (Picture used with the consent from the family)

The workshop began with the reception of participants (names were attached to a coloured cloth and the randomised colours represented the teams). Then the design team made a brief presentation about the project Barrios. We followed the presentation with all the attendees throwing a ball between one another, telling each other their names and pointing with their fingers the directions in which they lived and how far away it was from the school. In addition to getting to know one another with this activity, we wanted to reinforce the link between the area of the future playground with their neighbourhood. Then we separated the participants into their groups as identified by the colour given at the entrance.

Each colour corresponded to a different age range (0-2, 3-4, 5-8 and 9-12 years old), with which the team was told to focus on and plan activities for:

Activity 1. DISCUSSION: Each team discussed the particularities of children of their specified age range, what they like to do and which activities are suitable for them. To understand the current social and cultural context, the design members asked the participants about the activities the children in the neighbourhood were currently performing, at which age they start to go outdoors by themselves and in which places they usually play.

Activity 2. SUGGESTIONS: The teams suggested equipment for the age range they had previously been discussing. Preferred materials were also discussed at this stage (they were provided with a box containing several materials to inspire them: wood, branches, stones, metal, mirror surface, rubber, plastic, cardboard, etc.).

Activity 3. OUTDOORS: Each proposal was written or drawn in a colour pennant (that matched the team's colour). The teams went outside to the plot next to the school to place the pennants in the locations that they considered suitable for the equipment and/or activity that they had proposed.

The workshop finished with hot chocolate and homemade cookies to fight the cold weather and liven up the final, wrap up phase.

Observations and initial findings Workshop

The participants were mostly school students and teachers. Some school authorities, representatives from local organizations, UCC's local operators and few parents also joined the activity. The regional supervisor and local UCC operators were present for support during the workshop. The City Mayor did not participate in the workshop but attended a few minutes to show support.

Despite the absence of mamatotos, there was a cheerful atmosphere and the tasks were developed with enthusiasm. The workshop was well

evaluated by the participants and particularly by the school principal who stated that she had many ideas and a desire for carrying out further activities that involved the neighbourhood and its residents, but that the routine of solving daily issues did not leave much time for these other things that, she conceded, were also very important. "With the routine one forgets how important it is to do these things", she said. In short, and despite the absence of mamatotos in the workshop, it was completed in a very warm atmosphere with positive synergy that was motivating for all parties. The children were also very enthusiastic about the workshop and asked the design members when we were going to come back.

The school facilities provided a suitable and comfortable environment for the workshop and the activities. Since the playground was to be designed for children up to 12 years old, the call for the workshop included children of the entire age group, not only early childhood. The attendance of children over 5 years old, the age at which they start attending school, was numerous because the workshop was held at the same time that classes finished and captured the attention of the children who passed through. The workshop was conceived for all ages, but the oldest children took most of the attention due to the fact that they possess a greater capacity for interaction and socialisation and that there were fewer numbers of children in early childhood.

In all age groups the final activity, which finished outside in the plot of the future playground, proved to be very engaging. This may be the effect of seeing a tangible outcome coupled with the grounding of the co-ideas generated throughout the workshop into a reality they could see, making it their reality.

The outcomes of the co-design workshop were rich in material in the sense that it allowed us to obtain insights from and about the community. From these we used the main concepts to develop the design of the future playground. However, the results were very general as the time available was too short, lasting only 2 ½ hours, to generate a more complete or creative result. From the workshop, aside from the rather conventional proposals produced, it was evident that there was a large desire to have that space for playing. We concluded that the most positive outcome was the overall desire for "a safe space for children of all ages to play and socialise".

The objectives of the workshop were partially achieved. Every activity was conducted to a satisfactory degree, but the low attendance of young children and their families impeded our work with the target population and made making conclusions regarding their participation very generalised and speculative. The absence of end users demonstrated that the involvement of families with young children in participative activities is the first obstacle we had to confront in the attempt to co-design with early childhood.

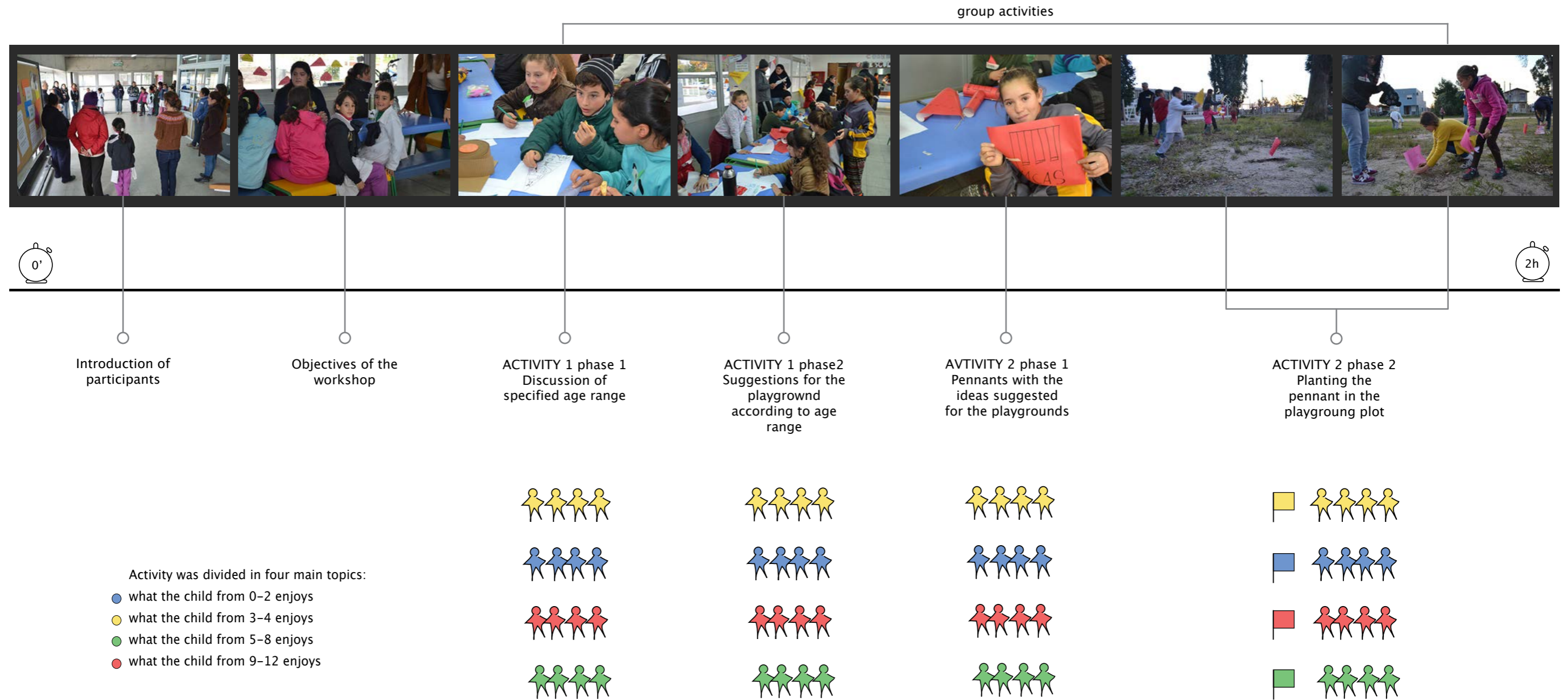


Figure 13:
Ciudad del Plata.
Workshop: activity plan.

4.2.2 NEIGHBOURHOOD TOUR AND HOME VISITS

General information

Date: 01 June 2016

Neighbourhood: Delta del Tigre

Participants: 2 design team members, regional supervisor, 2 local operators

Total number of homes visited: 6

Materials for the tour:

Prints: questionnaire, map

Notebook, pen

Photo camera



Figure 14: Neighbourhood tour, Ciudad del Plata. (Picture used with the consent from the family)

The design team considered a unique approach to try and understand the community as the previous co-design seemed to be insufficient due to the complex reality of the neighbourhood. Besides, the presence of young children in the workshop was minimum, which made the design team feel that early childhood had not been accurately represented yet. Thus, two members of the team arranged to visit the area of the future playground accompanied by the UCC regional supervisor and two UCC local operators, who worked almost daily with young children and families of

the area. Even though the tours were planned as informal visits, we used a questionnaire as a guide to collect the information we considered relevant and necessary. The objective was to gain deeper insights into the life of young children and their families.

The questions we asked the residents of the neighbourhood focused on understanding: the link they have with public spaces in general; with their neighbourhood; with the specific plot where the playground will be located; the importance they place on the playing of young children in general; and the interest of the family on the playground we were working on.

Observations and initial findings of the TOUR

The exchange with the families and neighbours was very insightful for understanding the relevance of a playground for young children and to modify our perspective of their needs.

An unexpected outcome that proved insightful was the conversation with UCC members along the tour. Stories about their families and living habits emerged spontaneously before and after each home visit.

Outcomes of the questionnaire:

The responses we elicited showed enthusiasm regarding the future playground and even the possibility of participating in any related task, for example, to provide ideas and to build or maintain the space in the future. In general, families stated that there was a disconnection between the residents in the neighbourhood. They knew each other by sight but interacted only occurred when it was essential. In regard to the space of the future playground, residents mentioned that it is a space that they would visit due to their proximity, but at the time there was no infrastructure to use so there was little necessity. Mostly, they agreed that there was no suitable place for young children in the area. It is also notable that the importance they placed on playing in childhood was presented as a matter of children getting tired and exhausting their energies as opposed to having a social or psychological impact on their development.

Closing Thoughts: Ciudad del Plata case

This case benefited from the involvement of the local UCC representatives who were very active but unfortunately there wasn't enough time to have a second workshop to try another strategy. Despite the warm environment of the first and only workshop and the information regarding children of all ages, we were still unable to provide conclusive findings about the primary focus of our co-design projects: what are best methods of co-design with young-children and their carers.

As such the design-team considered the walk around the neighbourhood as highly beneficial as it compensated, at least partially, for our initial

difficulties and provided information about the attitudes, beliefs, and desires that mamatotos had about their environment.

Throughout the design process we maintained a fluent exchange of ideas with architects of the San José municipality, which was fundamental in the development of the last stages of the project and in the arrangement of the administrative procedures to prepare it for the construction phase. The playground is being built at the time of writing.

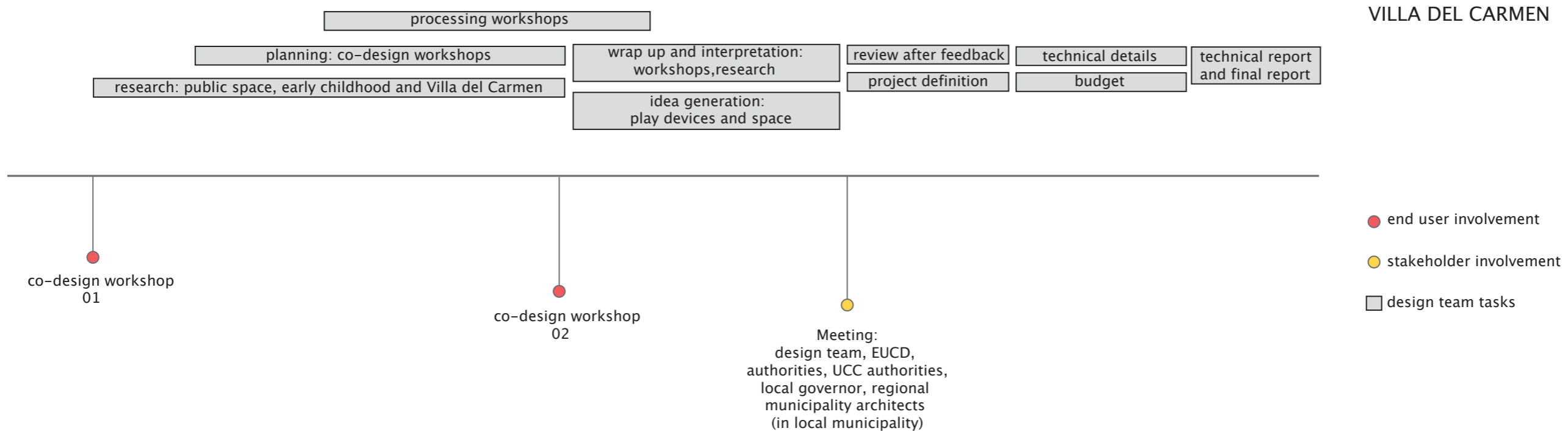
Even though the County Municipality was held by an opposition party, the political tensions were not relevant in this case as the project has not been hindered in any way to date. This may be due to the involvement of the City Municipality in this project. The City Mayor who belongs to the governing party, was the promoter of the project and oversaw the funds for the construction. This situation proved most favourable to the concretion of the playground.

4.3 CASE STUDY 3: VILLA DEL CARMEN

Villa del Carmen, a town with 2,692 inhabitants according to the census of 2011, is located 60 km from the city of Durazno and 250 km from the

capital city, Montevideo (see map in Figure 03). A populated centre called Carmen was created in 1874, which rose to the category of town in 1908 and then to that of “Villa” in 1975. Agriculture is the main source of income in the zone, making wine production stand out as a commodity of importance and acclaim. Grape and wine production in the area provides most of its employment and is held with particularly high esteem, as such that there is an annual festival for the celebration of that year’s vintage. This serves to honour the slogan that identifies theirs as the “Town of the Best Bread and Wine”.

The playing devices and equipment for early childhood were planned to be built in the main square of Villa del Carmen named Artigas Square. The square is central to the village and is the location of many cultural events that take place throughout the year. The church and the ‘Club Centro Recreativo Democrático Villa del Carmen’ (the Social and Recreational Club of Villa Del Carmen) can be found across from the square, as well as a playground for children in middle childhood. It has a kiosk and a bus stop. There are some problems with the type of visitors frequenting the square since the kiosk offers alcoholic beverages. Moreover, the bus stop summons many people in transit who do not even make use of the square as a public area, but merely as another street to access the public transport system.



A renovation of the square was proposed by the County Municipality of Durazno. It intended to improve the appearance of the square, its equipment and to resolve some modalities of use briefly mentioned above. In short, the interest of the authorities and the inhabitants of Villa Del Carmen is to revitalise this main square of the town and to this extent, the family orientated project Barrios is a desirable activity to work in conjunction with the objective they had already set. The presence of early childhood devices in this context turns the main square into an attraction for families and an opportunity for their integration into the community as a result of our co-design project.

About 300 children aged between 0 and 4 years old live in the village but it has few institutions for early childhood. There is no CAIF but it has a day centre CAPI (Spanish Centro de Atención a la Primera Infancia, i.e. Centre for Early Childhood Care), which despite lacking the specialised staff such as the actors in CAIF, it currently receives 30 children daily. It can offer them a safe environment with protection and care from the ages of three months till three years of life. However, it is still insufficient to handle the quantity of children living in the area and a new location is being prepared to receive more children in the near future.

The actors directly involved in this case were, as before, the EUCD, UCC and local County Municipality which in this case, was Durazno. The design team was the same as in the previous project. Our counterpart at the County Municipality was the local architect, who carried out the renovation project for Plaza Artigas and who would oversee its construction.

PROCESS. Because the locality was significantly far removed from the project's base of operations and respect to Montevideo, only two visits to Villa del Carmen were made. This meant there was very limited time to visit the village, see the square, and observe the space that would become the future playground. There was no time available in either trip to spend time in the square, or familiarise ourselves with the culture and to talk with the residents informally. For this very reason, no introductory meeting was held between the representatives of institutions involved in the projects –County Municipality and UCC and the design team. The first visit to the locality was with the sole purpose of carrying out the first co-design workshop. After the workshop the design team made a fifteen-minute tour around the village in a car before leaving. The second and final visit was exclusively to conduct the second co-design workshop. Figure 15 illustrates how the involvement of local community in the process happened only at the beginning of the co-design process. The workshops had as their general objectives to get to know the community and to obtain insights and ideas for the future playground. After the workshops the design team analysed and interpreted the material they had collected. After the processing of the workshops, several proposals were generated for the playing devices and equipment that were presented to the architect of the County Municipality and official representatives of UCC. Considering the observations and suggestions of the meeting, some

modifications were made and, subsequently, the technical portfolio for budgeting and production was conducted.

Various local actors participated during the design and implementation process. Both workshops took place at the Club Recreativo Democrático Villa del Carmen, located in front of the Artigas Square where the playground was going to be designed. The first workshop received authorities and representatives of the institutions involved, both directly and indirectly, with early childhood and Artigas Square. The second workshop had been planned with the same groups that attended the first workshop but in this opportunity young children and their families were also incorporated. Other members of local community with no direct link to early childhood also participated in the final workshop.

The two co-design workshops that were conducted to involve the community in the design of the playground for Villa del Carmen are described below.

4.3.1 FIRST CO-DESIGN WORKSHOP

General information

Date: 02 August 2016

Location: Club democrático social y deportivo Villa del Carmen

Duration: 2 hours

Participants: Actors from local institutions and organizations.

Total number of participants: 11 plus 6 design team members

Materials for the workshop

Digital presentations, computer, projector

Papers, post-its, tape, pen, markers

Prints: activity plan and 'secret guide' –one per design team member-

Photo camera

Among the objectives of the first workshop was to present the co-design project Barrios, the working methodology and the project members, specifically, the design team and the County Municipality architect. Other objectives were to obtain information from the experience of the local actors regarding possible devices and designs for the Square and to align the participation of the institutions. In the central activity of the workshop, four thematic axes were worked (Security, Community, Dynamics and Development). Discussions were conducted within the work groups covering any aspect that the participants deemed relevant for each axis while proposing ideas, suggestions, and solutions for future devices and designs. The structure of the workshop was the same as that of the first co-design workshop of Florida (for a more detailed description of the workshop activities of see first co-design workshop from the Florida case study).



Figure 16: Villa del Carmen first workshop.

Observations and initial findings Workshop 01

From the offset of the workshop we suffered an important setback: there were no participants at the beginning of the workshop. The regional supervisor of UCC, our contact in the locality who was responsible for organising our meetings with the local actors, who were mistaken about the time and date we had scheduled.

But the benefits of it being a very small locality became apparent very quickly because as soon as we realised this error of communication it was evident that the workshop was still possible and within minutes several of the expected participants were present.

The facilities at the club where the workshop was held were adequate, but not ideal. The venue's temperature was cold and the dim lighting combined and generated a faintly unpleasant atmosphere.

Although the workshop was carried out with satisfactory ease, there were still moments of tension. This tension was due the discrepancies of opinion around the room about the renovation of the square and the appropriateness of choosing this area as somewhere to design equipment for early childhood. We were informed then that most families with young children apparently live in a new area far from the square. At times, these divergences locked the flow of the workshop as soon as it returned to the subject.

A further issue was the existence of a kiosk with the sale of alcoholic beverages in the square as a fundamental argument against having a playground in the square. The design team's impression of these recurring differences was that other, more functional issues that had nothing to do with early childhood considerations were already hindering the co-design of the project.

The variety of views were evaluated as a positive outcome from the workshop, although there were still few representatives from institutions directly linked to early childhood who could provide a deeper insight into our end users. UCC local operators, for example, were not present. The City Mayor was present at the beginning of the workshop to express his support but did not stay for the activities.

In general, the objectives of the workshop were fulfilled although the focus on early childhood was lost in some moments. It may have been due to the lack of presence of direct early childhood representatives and the fact that external workshop issues kept recurring and constantly diverted the focus.

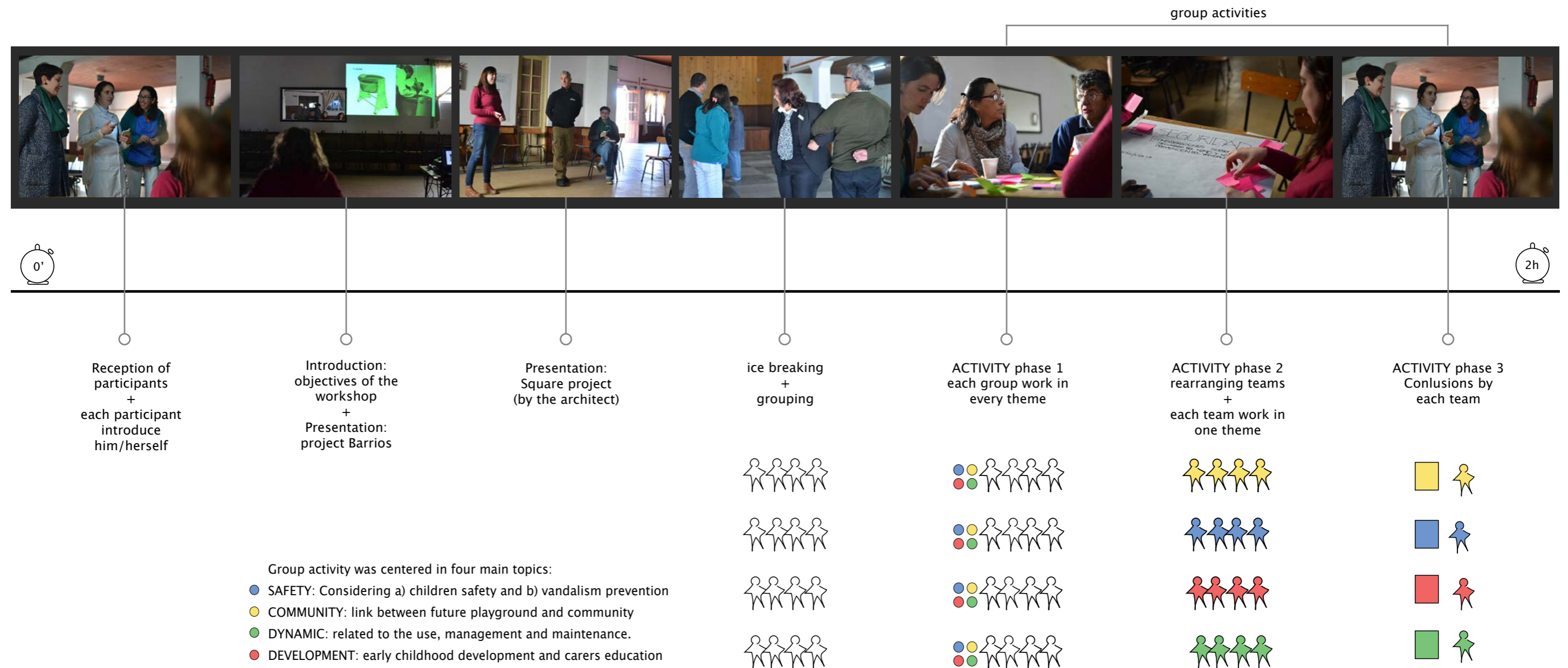


Figure 17: Villa del Carmen. workshop 01: activity plan.

4.3.2 SECOND CO-DESIGN WORKSHOP

General information

Date: 22 August 2016

Location: Club democrático social y Deportivo

Duration: 2 hours

Participants: Families with young children, representatives of institutions and other community members.

Number of young children: 3 children

Family: 3 mothers

Total number of participants: 20 plus 6 design team members

Materials for the workshop

Papers, post-its, tape, pen, markers, drawing material, material for models

Prints: activity plan and 'secret guide' –one per design team member-

Photo camera

Frame for photo

Baby Soft Ball



Figure 18: Villa del Carmen second workshop. (Picture used with the consent from the family)

The intention was to get closer to the community by inviting, besides end-users of the devices, other local actors and potential users of the square with the purpose of obtaining various points of view that allow could help us understand the complexity of the interactions that may occur in the square.

For our final workshop teenagers were also invited, at the suggestion of the local Family Doctor of ASSE (Office of the Public Health Ministry) who stressed the importance of involving this age group during the previous workshop, since, with the right guidance they could channel their energies to help the development of this type of project. Participants of the labour integration program 'Uruguay Trabaja' (Uruguay Works) from the Ministry of Social Development were also summoned. This program was designed for long-term unemployed persons that belong to households of socio-economic vulnerability. This decision was because we wanted to engage the entire community with the issues of early childhood involving public space.

The general objectives of the workshop were to get to know each other and to create a space for early childhood in the main public square of the town. The activities of the workshop were planned with the intention of understanding the considerations necessary to create an adequate space for young children in a central public square. A further challenge that was discussed arose from the differences of opinion regarding the suitability of the Artigas Square, what features of a location should be considered in the co-designed early childhood equipment?

The workshop began with introductions: each participant throwing and catching a ball, saying their name and passing it to another participant. We continued with brief presentations about the project Barrios that led the focus of the design team, and one on the renovation of Artigas Square by the architect of the County Municipality.

The central activity of the workshop focused on issues regarding the square, early childhood and community. Group work revolving around these themes were guided in order to obtain insights, suggestions, ideas, and possible solutions for the future playground. The activity concluded with presentations from each team showing what they made and discussed. Before we left, photos of the participants were taken with a printed frame resembling that of painting, that said 'we participated in the creation of the Artigas Square in Villa del Carmen'.

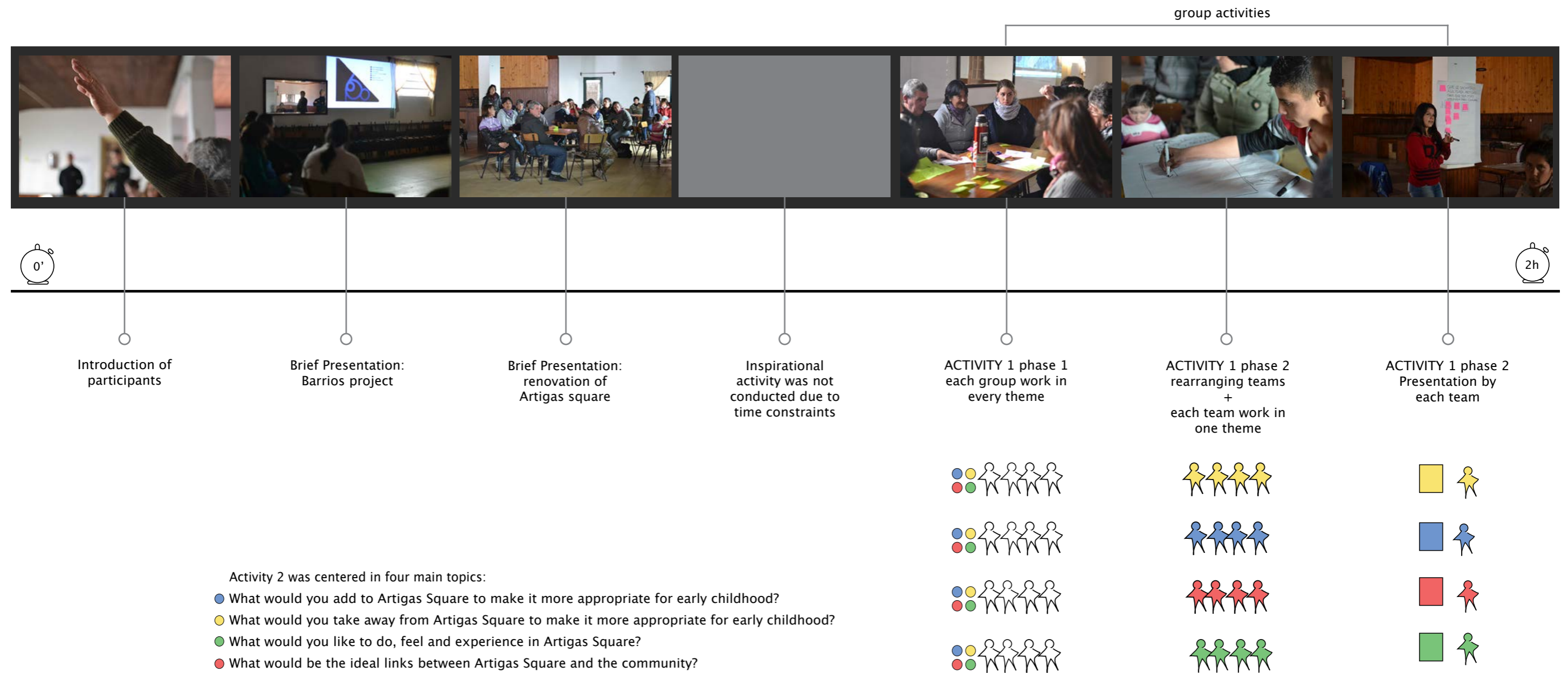


Figure 19: Villa del Carmen. workshop 02: activity plan.

The activity had three phases:

Phase 1. The first part of teamwork exercises focused on discussions around four main issues:

- What would you add to Artigas Square to make it more appropriate for early childhood?
- What would you take away from Artigas Square to make it more appropriate for early childhood?
- What would you like to do, feel and experience in Artigas Square?
- What would be the ideal links between Artigas Square and the community?

Every group was asked to exchange their impressions of one topic at a time, passing through each issue in turn. Five minutes was allocated per topic, which as mentioned before is short time but it generates novel commentaries and ideas. Design members devised the role of a 'secret guide' to pose questions in case some of the central aspects we were concerned with were not mentioned

Phase 2. Rearrange groups: each group continued working on one theme before a group member chose a theme they wanted to represent, we then called them 'theme specialists'.

To rearrange the groups, a member of the initial group who was interested in representing a theme met the representatives of said themes from other groups. They had some minutes to share what had been discussed in their previous groups. They were asked to propose ideas for the playground space for early childhood that considered the various aspects in relation to their theme before returning to their original groups to share these discussions. It was proposed that they would work in free format. Materials to draw and make models were available for use.

Phase 3. Presentation of results

Each group presented the conclusions regarding their theme.

Observations and initial findings WK 02

The beginning of the second workshop also had a major setback when it started. The arrival of the design team was delayed by an inconvenience in the route and arrived at the place half an hour after the stipulated time to start the workshop. The design team decided to cancel an ice-breaker activity to leave enough time for the rest of the activity plan.

As in the previous workshop, the facilities of the Club were correct to carry out the workshop, but not ideal. It is a cold place with little natural light and furniture does not meet the needs of young children.

This workshop was attended by a very varied audience because it was proposed by some participants of the first workshop - and we agreed - that since we are talking about a public space it was important to receive anyone who could give a look. In turn we evaluate it as a way to generate feeling of belonging, also being a space taken care of by all, and as a way to avoid vandalism. It was also considered from the perspective that early childhood is everyone's business and that it is good to raise awareness about the importance of a public space which contemplate them. Although all these aspects are true, the variety of participants complicated the conduction of the workshop and conspired against the focus of the workshop: to create a space for early childhood. We failed to contemplate them even in the workshop that is supposed to bring them a voice. Despite having had some young children and mothers, these were practically unnoticed. It was difficult to generate a climate linked to early childhood and generate a co-creation environment. It may be possible that the objective of the workshop was not clear enough among the participants. The design team was a little overwhelmed by the variety of participants and the disconnection with the focus of the workshop.

The participation was based on verbal exchange. Although we took materials to draw and model, there was only one drawing that came up with the insistence on the part of the design team. The generation of ideas did not flow and the design team failed to successfully promote it. The outcomes were mostly very general suggestions, without development or too much reflection.

Although all planned activities were carried out, the objectives were met partially, as they did not achieve a very fluid exchange of views and ideas and, above all, early childhood did not gain relevance.

Closing Thoughts: Villa del Carmen case

The Villa del Carmen case was the most unsuccessful for several reasons. There were setbacks in both co-design workshops which made it difficult to maintain a focus on early childhood. The distance to the town made it difficult for the design team to interact and engage more with the local actors and the community in general. In addition, the beginning of this project overlapped with the end of the Ciudad del Plata project, contributing to the reasons why the equipment of design was overlooked in this case study.

Regarding political tensions, parallels can be seen between the Florida case and the one presented here. The County Municipality and City Municipality are from opposing parties which appears to have created tensions and threatened the co-creation of the project. The renovation of the square has been completed and co-designed equipment for early childhood were not installed. This recurrent situation highlights a major challenge. According to the National Elections of 2015, only 6

County Municipalities from a total of 19 belong to the governing party of Uruguay, as such there are many political hurdles to leap before co-designs with young children and care-givers in public spaces can gather any momentum.

SUMMARY OF THE CASES

Case	Florida	Ciudad del Plata	Villa del Carmen
Aims	Co-design a playground for early childhood to be included in the planning of a large new square for the city.	Co-design a playground for early childhood to be located in a terrain, next to a new public primary school.	Co-design playing devices for early childhood to be included as part of the renovation project for the main square of Villa del Carmen.
Structure	Introductory meeting with involved institutions 3 co-design workshops (one with institutional actors, two involving end users).	Introductory meeting with involved institutions. 1 co-design workshop (with end users and childhood in general) 1 neighbourhood tour.	No introductory meeting with involved institutions 2 co-design workshops (One with institutional actors, one involving end users and community members in general).
Participation	Little attendance of end users. Participants were mostly representatives from early childhood institutions.	Little attendance of end users. Participants were mostly school students and teachers.	Little attendance of end users. Participants were mostly community members unrelated to early childhood.
Key actors	UCC Regional supervisor (official) and psychotherapist from the CAIF (informal).	UCC regional supervisor, City Mayor, County Municipality Architect, School Director.	The project lacked this figure.

Workshops	Very positive atmosphere.	Workshop: Cheerful atmosphere and the tasks were developed with enthusiasm. Neighbourhood tour: very valuable insight for the design team.	Atmosphere with tensions and difficulty in maintaining the focus in early childhood.
Outcomes	Rich and developed material. Drawings and models.	Mostly conventional devices were suggested but expressing desires for a safe space to play and socialize.	General and without development. Mainly verbally expressed.
Observations	Sceptical views coming from the unicipality representatives. Political tensions.	Fluent collaboration with municipalities.	The most unsuccessful case: setbacks in both co-design workshops. Overlap with Ciudad de la Plata project. Similar political tensions than in Florida case.

Table 01: Summary with the key parts of the cases

5. FINDINGS

This section presents the research questions of this work followed by their findings to understand the associated issues we have found in the analyses of each case study.

5.1. FOR WHOM ARE WE DESIGNING

When designing for early childhood, for whom are we actually designing? What are the challenges and the implications that arise when the design focus moves from an individual to a complex dyad (mother-baby). How is best to build a space for dialogue to see and understand what they both need?

When designing for early childhood it is necessary to consider the mother-baby relationship as a dyad. Since we are talking about very young children, they need their carer to perform, or at least supervise, very basic actions. We had very few dyads present in the co-workshops due to the low attendance of young children. Therefore, in this work it is not possible to answer the question regarding the mother-baby dyad based on the case studies.

Our original concern was to look at dyad and that interest remains. However, as this work was conducted in the context of projects with state intervention a series of external difficulties impeded its central focus. It is necessary to take note of these difficulties, which involved actors from various institutions, to be able to generate the right conditions to then look at the dyad in future research.

5.2 HOW TO INCREASE THEIR VOICE

How to increase the voice of young children in the design and planning of public spaces?

Our work with designing for this dyad poses the question of how to co-design for and the benefits that may entail to be examined by future research but we can still conclude that it is still possible for voice of mamatotos to be heard despite their absence. We can then pose the question: how can we ensure this is given a platform? All present and participating members of the co-design projects for public spaces must be sensitised to the needs of children and thus evoke them in decision making processes. To do so, we identify aspects that can make early childhood relevant during the design process despite their lack of physical presence.

Some aspects perceived as beneficial to the amplification of early childhood's voice are as follows; the understanding of what failed in the engagement of our end-users to be able to detect alternate methods of action and achieve better attendance of young children in future research. Others refer to identifying how we can bring them to focus regardless of their physical presence. Some of the aspects presented below have been inferred to be positive in the promotion of the mother-baby dyad participation. This is not conclusive, since as mentioned previously, there was no possibility of observing the dyad to draw decisive conclusions. Hence why intuition appear alongside the issues which we consider positive for increasing the voice of early childhood.

GRADUAL APPROACH TO COMMUNITY: A gradual approach to the local community is presented as beneficial.

Through a gradual approach the design team familiarised themselves with the context and identified access points to the local key actors in order to plan an action strategy to implement the project according to the conditions of the place. It allowed the design team to prepare the material according to whatever context they are accustomed to. This way there is a positive result in the design process, in both previous planning and in the what could be achieved in the workshops.

In every case study the community, and early childhood in particular, was approached differently due to its context and the unique features of each project. Even though we co-design workshops remained constant, their content and style varied depending on these considerations. Introductory meetings with the actors of institutions directly linked to the project were not held in every case study.

In this sense, the Florida case was the most complete as the initial introductory meeting was held with local authorities and the community was gradually approached in three separate co-design sessions. The first workshop involved actors from local institutions and organisations, followed by two workshops with the end-users. It was even possible to visit the place where the workshops with the end users would be carried out to assess its suitability beforehand. This setting provided a

progressive understanding and interaction with local people, preparing the following steps of the process. The effectiveness of approaching the community gradually is reinforced by the outcomes generated in the Florida workshops, which showed an increasing level of development and a co-creative atmosphere

In the case of Ciudad del Plata, after the initial meeting with local authorities, a unique co-design workshop was conducted with local institutions and community including the end-users. As there were almost no young children in attendance and little available time for a second workshop the design team and the UCC regional supervisor devised a new strategy. They concluded and performed a tour of the neighbourhood with local operators from the UCC, to visit residents in their homes and make casual interviews would make a more direct and informative second attempt in approaching end-users.

In Villa del Carmen, the most remote location of the three case studies, there was no time for an initial meeting with any authorities directly involved in the project. The design team met with involved actors including the City Mayor and the architect from region in the first co-design workshop. Two co-design workshops were organised there, the first involving actors from local institutions and the second with the community. On both occasions time was limited and there wasn't enough for the design team to visit the village and interact with the community. Besides, in both opportunities unforeseen events overshadowed the participation and atmosphere of the workshops. In this case study, the design team could not overcome the distance of their relationship with the community and advancing was problematic. Due to this distance as well as the lack prior meetings with local operators were not viable, the design team was very far removed from the locality at the offset.

For these types of projects wherein we work with different actors and people from vulnerable social contexts, it proved important to plan site visits and meetings with the community in the manner of a gradual approach. In this way, all parties could prepare for the next meeting in order to align objectives. The design team and local actors could also use this time to adjust the aspects that did not work previously to improve all future results.

GATEKEEPERS: The need to strengthen partnership with UCC local representatives and the relationship with key actors is detected.

The conditions of the project and the characteristics of our target population make it imperative to have a local actor that can act as a bridge between the design team and the end-user. End-user engagement was a key issue for successful attendance at co-design workshops and their subsequent participation. Considering we are referring to populations from vulnerable socioeconomic contexts, reaching out to them remotely

was not possible. It is always important to establish a trusting relationship through local actors (Hamidi et al., 2014).

The design team's link to the community were the UCC's regional supervisors and other local operators. The UCC regional supervisor was the design team's direct contact. UCC local operators were the ones who had almost daily direct contact with the community and hence have a relationship of trust already established between with them. Therefore, the engagement of the community to attend co-design workshops, to a large extent, depended on this chain of actors. In each case study, the commitment and availability of local UCC's representatives for this project varied substantially and consequently, our relationship with the community varied with it.

The target population's attendance at the co-design workshops was not satisfactory in any case study as they never met the expectations of the design team. The first workshop in the Florida Case when young children and their families convened was the most successful in this regard because seven children attended with their mothers (even a grandmother). But even still not all remained for the entirety of the session and in the following workshop only one baby and two mothers were in attendance. In the Ciudad del Plata Case and the Villa del Carmen Case the presence of early childhood was represented by only three young children and their mothers in either case.

The difficulty of engagement is not unique to our project. According to the director of the CAIF where the Florida Case's workshops were held, the engagement of families is an obstacle they face constantly, regardless of the activity. It is unclear what possibilities, if any, we exist that we can use to influence and improve this, but at least now we are aware of the situation, which unfortunately was not raised at the beginning of the project.

In the Ciudad del Plata case, not having had enough young children in the co-design workshop, we made a tour around the neighbourhood where we were able to get close to their homes and talk to their families. The experience was very positive, as they were very willing to meet and talk with us. The course was proposed by the regional supervisor of UCC, who had an active role during the project due to the call for the attendance of early childhood had failed in the workshop. The local UCC representatives in this case were very supportive and showed great commitment during the co-design workshop and above all, during the tour of the neighbourhood. They suggested this change of strategy that proved effective: if we not able to attract end-users to the activities we organise, we should go where they are.

The Villa del Carmen Case was the most unsuccessful since our link with early childhood and the community remained more distant than in the other two cases. The regional supervisor of UCC for this case did not arrange with the institutional actor for the first workshop due to a scheduling confusion Although this was remedied in a few minutes, the

fact showed that our activity was not being considered much importance by those who were required to inspire engagement from other members of local community and serve as our connection to them.

To achieve good end-user attendance perseverance the gatekeepers are required to engage the target population. It is important not to leave it to chance and depend on the interest of whoever turns out being the institutional link in each locality. The design team never worked in depth on how to make the call or delegate the task in any case presented. For some reason, we believed that local representatives knew what and how to best engage with the community without discussing or recording exactly how the arrangements would take place. Therefore, if the call for attendance failed the fault is partly the design team as it was our responsibility too because every local representatives' engagement depended on us as much as the community's engagement depended on them.

It is possible that the design team did not establish the objectives and relevance of early childhood participation with sufficient clarity, and made it difficult for local representatives to successfully complete their responsibilities. Along with the variety of participants who attended the workshops, a variety of expectations and understandings regarding its objectives attending as well. Apparently, the workshops' purpose and objective of participation were not clear enough. As an example, in the second workshop in Villa del Carmen, which was attended by many participants who had no direct link to early childhood, it was difficult to keep the focus on the subject of the voice of early childhood. This may have happened partly because the reason why the workshops were orientated for early childhood was not explained clear enough to the participants to understand. However, the conflict in the situation did not arise only because the population was unrelated to young children as shown during the second workshop in Florida when the representative of an institution for early childhood expressed her discontent about the activities as she believed that "she came to do crafts". These situations pose that communication with local representatives and the community remain another challenge to overcome.

In addition to the UCC local representatives, there may be some other local actors who had a good connection to families of young children. In the Florida Case we were fortunate that the psychotherapist working at the CAIF actively participated in making the families interested in the workshops out of her own initiative. It is important to consider that the emergence of a local key actor indirectly involved in the project who may spontaneously assume a role in the process was made possible due to gradual approach of this design. Since this actor emerged efficiently and naturally, her efforts to engage the community was made possible in the initial workshop phase with institutional actors. In case the setting allows the appearance of such an actor, it is important to be alert and detect it as it happens. This actor represents a value addition to the project team, shortening the distance between the design team and the community, as well as between the community and end-user.

The difficulty with end-user engagement and the confusion regarding their objectives of participation show the importance of more efficient cooperation between the design team and the local actors that link them to the community. The necessity of delegating tasks from the design team to external actors causes a loss of control with the design process. To minimise the effects of this loss of control, it is necessary to define the role and degree of commitment expected from these actors more clearly. Allowing of course for flexibility. It is also necessary to discuss and establish the objectives and the relevance of early childhood participation between local actors and all participating members. Finally, it is important to plan out task delegation processes and follow them up closely.

ENVIRONMENT WITH FOCUS IN EARLY CHILDHOOD: The generation of an appropriate environment is presented as favourable to give a voice to early childhood.

An environment relevant to early childhood is presented as beneficial both to promote end-users' participation and to maintain the focus on early childhood. The suitability of the environment refers, on the one hand, to the profile of the participants of the workshop as well as to the place where the workshop occurs.

CONFIGURATION OF PARTICIPANTS. As the participation of *mamatotos*, i.e. their voice, was more pronounced in some workshops more than in others even after attendance had been considered. This seems to reflect an issue with participant configuration than attendance. In cases when assistance was mostly given by actors from organisations linked to early childhood, the focus on young children remained despite the lack of the end-user's physical absence. The Florida Case's third workshop, for example, in which only one baby and two mothers attended but attention was focused throughout on early childhood. In the Ciudad del Plata Case, it was more difficult to emphasise the importance of early childhood because the workshop was mostly composed by children over 5 years old while only three young children attended. Although the conditions of presence and focus on early childhood specifically had not been appeased, it maintained a cheerful mood, enthusiasm and playfulness atmosphere very much in keeping with the feelings associated with childhood in general.

A common feature of every workshop was the diversity of participants including local actors from different institutions and organisations (such as politicians, health care professionals and early childhood experts among others), and the local community members. In some cases, the variety of participants was more accentuated, as in Villa del Carmen's final workshop where attendants were mostly teenagers and a group belonging to a program of labour union. Both groups were relatively removed from the theme of early childhood. A doctor from a public health system of

the village suggested that involving teenagers is always a good strategy as they have a lot of energy, but it had to be directed correctly, and this project could be a good opportunity to work in collaboration with them. She was enthusiastic about it and shared some successful experiences in which she engaged teenagers for social work. Though she is correct in many regards, it became clear after the workshop that with a greater variety of participants more time and strategies are needed to focus it. It is likely that these participants were not clear about what they were doing there, nor was there any expressed interest in the topic. As such, it was rather complex to generate co-creation dynamics in that context. That same workshop was attended by three young children with their mothers and very few representatives of institutions linked to early childhood (only a representative of CAPI and two local UCC operators). Therefore, given the fact that the actors not related to early childhood outnumbered the ones who were, it was not possible to provide a voice for the end-users and the focus was lost. Young children and their mothers became 'invisible' in the presence of so many people estranged to them.

Even though having many opinions and points of views can have its advantages, here the variation of participant profiles created its own challenges that distracted and deviated from the central intention of the workshop that had already proved complicated enough without these further variables.

Besides, young children tend to feel uncomfortable when around people unknown to them and are naturally reluctant to interact with strangers. A popular theory in Psychology based on the observation of children and their carers that has shown significant results about relationships in their of futures highlights that it a warmth to strangers may show an insecurely attached infant to their care-giver (Bowlby & Ainsworth, 1965). These variations of attachment can explain some behaviour displayed by the young children during our workshops and could help us understand how best to co-design with them.

Therefore, in order to create a familiar atmosphere, it may be more effective to organise co-design workshops exclusively for them and their families, including participation with other people from the community in separate workshops. In short, what seems important to consider is that all those who participate must be stakeholders, that is, they must be invested in the *mamatotos* or persons in early childhood whether the reason is professional or personal. Otherwise, it may be necessary to study how other community actors could be incorporated without blurring the focus on early childhood and threatening the participation of the more vulnerable attendees.

LOCATION OF CO-DESIGN WORKSHOPS. The places which appear to provide a more suitable atmosphere tended to be ones that were familiar to the end-users and tailor-made for early childhood. Familiarity with the setting may to be beneficial in the participation of end-users as are the scale of materials relative to a child and the atmosphere because they can also act as sensitisers for other stakeholders.

Florida's workshops with the community took place in the CAIF centre which receives the young children who participated in the workshops every weekday. Children and their families were already familiarised to it, which promoted their confidence. Somehow their position was somewhere between being the hosts and guests of the activities. We were hosting it, but we were also the outsiders. Another particular feature of this location was the child-sized furniture and decorations that appealed to children, priming participants to the theme of early childhood. It also provoked a subtle, unexpected effect in adults: to experience the discomfort of interacting with a world in which they are not considered.

Even in the Ciudad del Plata workshop, where most participants were children older than our focus group (five years old and more), the fact that they were in their own school was conducive to the feelings of confidence and safety. Since we arrived into their territory with our materials, the children were curious and motivated about what was going to happen. The child-scale furniture and decoration was also a further positive issue here to promote the focus on childhood, its atmosphere and the basis for discussion.

In both cases mentioned above, the spaces where the workshops were held were also luminous and pleasant areas. The club where the workshops of the Villa del Carmen Case were held was a cold, lugubrious place, usually used for events with poor lighting and adult-sized chairs and tables stacked ominously in the corner while we were doing the activities.

Considering these aspects, we assert that in the Florida Case where only one baby attended the workshop, the presence of the early childhood was still felt more acutely than in the Villa del Carmen case, when three young children attended. Although the attendance was lower, it occurred in a space created for the early childhood, with their diametres and needs carefully considered in the design and layout. Children were already represented here because the environment increases their presence.

Another positive feature of end-user familiarity with the location of the co-design workshop is that this may be used as a strategy to draw them to attend the workshop. In the second co-design workshop in the Florida case, the case with the most young children present, the best way to attract mothers with children was to repeat the invitation at the very moment they were dropping their children into the CAIF. In the case of Ciudad del Plata, faced with low attendance of end-users to the co-design workshop, the plan of action was modified by going where we could find them, their homes. Identifying a suitable place for co-design workshops, which in itself is a place where end-users are familiarised to, can be considered in the strategy of engaging them with future research into co-design.

In short, an appropriate and familiar environment for early childhood are proposed to be the most beneficial locations for mamatoto attendance and subsequent participation as well as being equally as effective in sensitizing and maintaining the focus of the rest of the participants. Thereby increasing the early childhood's visibility within the community

and amplifying its voice. In this way we can deduce that giving a voice to early childhood goes beyond their direct participation. The space of the workshops and the participants invited are factors also related to early childhood.

SCAFFOLDING TO SUPPORT PARTICIPATION: The provision of appropriate tools for participation and the right timing of its use in the design process are identified as fundamental elements of the scaffolding.

The types of activities proposed in the co-design workshops, the accompanying materials and the stage of the design process in which they are carried out appear to be strongly interrelated. Special considerations are necessary to promote participation.

Participation and co-design is not just about having end-users in the room while the workshop is taking place, but also providing them with the proper tools to support their participation. The population we were working with were not accustomed to being called upon to participate and may have felt uncomfortable being exposed to a situation that they were unfamiliar with and such a demand has the risk of overwhelming them. For every co-design workshop carried out, this had already been considered, for example, the possibility that some participants present may be illiterate. Despite having some considerations of this type, it is possible that some dynamics were not entirely appropriate for comfortable and fluent participation. This assertion arises in half from observation, half from intuition (Judice, 2014).

Local representatives from the UCC in Florida stated that mothers were not accustomed to planning; they live day-by-day, solving the immediate problems they face and therefore have difficulty with thinking about the future. Imagining a better future in the design of a playground can imply a great challenge in this context. It becomes fundamental to provide them with the appropriate scaffolding for them to participate and co-create, we cannot ask them to create something new from scratch in the little time available since abstraction and planning are needed for that. Therefore, we can assert that proper co-design tools are fundamental for their participation.

TYPE OF ACTIVITY. The planning of activities for co-design workshops had several challenges such, considering appropriate and engaging activities for the variety of participants, like mothers with children, authorities, educators. It was also important to generate activities that were motivating for the dyad.

The form, rhythm and length of the activities planned were a big challenge when approaching the community. While considering participants with

great differences in cultural background from professionals to illiterate peoples, concerns of the mothers to the politicians present, and the generational interests from babies to teenagers and adults to elderly. However, as our focus is on mother-baby participation, the type of activities that we will consider as more successful are the ones who reached this audience or that at least made them relevant to the design process. I consider it important to point out that I am not completely satisfied with the activities in this respect. We failed in framing an environment in which mothers and babies could interact as a dyad -without the interference of external factors- and where we could observe them and make conclusions. However, we still obtained some hints of what was and may be more suitable for our end-users in these case studies and can continue working in the directions they suggest to enable mother-baby participation in future experiments.

The more engaging activities for the dyad that appear more suitable to promote its participation in the context of the workshops that took place (with a short window of opportunity and no previous meetings) seem to be the activities which are more physical rather than verbal, shorter rather than longer, and concrete rather than abstract. The activity using mimicking to represent actions carried out in the third workshop of Florida case was the one which integrated the dyad the most and with spontaneity. It gave the impression that in these kinds of activities everyone felt comfortable as they could adopt a freer and more spontaneous expression. Besides, it was very effective in that the baby captured the attention of the participants, sensitising them to the matter at hand.

The instances of discussion, although necessary, were sometimes long and demotivating. Apparently participants felt more comfortable when actively participating than when giving opinions in public, since those who showed a more active participation in these instances were institutional actors while mothers tended to adopt a more passive attitude and offered few interjections during these discussions. Anyway, there is a great deal of literature on child development dedicated to these discussions that could also depict formative opportunities for mothers if they are treated with accessible language and material that promotes a bilateral dialogue. It is presented here as a necessity, that specific materials for the discussions must be developed that explore the difficulties we have identified here in promoting the participation of mothers.

This material should also promote the opportunity for them to receive information in indirect and informal ways. Activities that include more playful behaviours are more favourable as they serve as mediation in the activity. In the second workshop in Florida, a verbal game was held to discuss emotions and situations associated with parenting a young child. Some aspects of the game did not work as expected and the activity proved long and repetitive at times. In any case the present elements to consider are, for example, having to respect the turns of the game allowing everyone to have a time and space to intervene. Although some end-users

did not feel comfortable taking the floor and may have felt pressured to participate.

Regarding the planning of co-design workshops, it is evident that early childhood need to be provided with support to participate in a different manner than those developed for older children who can interact with others autonomously. In the case of the school children in Ciudad del Plata, they participated rapidly and spontaneously with no need for encouragement. This suggests that the creation of specific tools to enable end-user participation is needed. Although some authors like Gaudion et al. (2014) claim that empathic understanding is the only design method necessary, the analysis of these case studies depicts that there are a number of other issues which have to be considered in advance. The familiarity with the space in which the co-design workshop takes place, for example, has proven to be conducive for the end-user participation. Thus, although there is no discussion regarding the importance of empathic understanding, it appears that previous planning and the appropriateness of activity are also necessary to guide participation.

In some workshops, inspirational activities were performed with great success in our target population. Due to time and priority, they were not carried out in every workshop. However, when evaluating the workshops in which this type of activity was included, they appear as beneficial to the created atmosphere and the outcomes.

In workshops when a specific inspirational activity was included, it was conducted before the core activity of the workshop. It was always related to the main issue that the central activity hoped to tackle. When revising the data, it appears that the workshops in which the inspirational activity was incorporated the co-creation atmosphere was fresher and the ideas developed were less generic (less mentions of slides or swings). They also worked as a second ice-breaker, with a wider effect. This highlights the importance of considering the inclusion of inspirational and motivating activities in all workshops and prioritising them over others.

ACTIVITY IN THE SPACE OF THE FUTURE PLAYGROUND. Using the space where the playground was to be built during the workshop, or with any activity, was something that the design team considered in all cases but was not always viable. In the Florida case study the area for the future playground was literally under construction and hence unsafe to visit. In the Ciudad del Plata Case it was possible to plan some activities in the plot of the playground, as it was located next to the school where the workshop took place. Even though the plan had to be adapted due to weather conditions (coldness and humidity), we could still conduct our final activity there. The Villa del Carmen Case playground space was in front of the place where the workshops took place but it was too risky to plan activities there, since the design team had no opportunity to arrive with enough time in advance due to remoteness to prepare things there. Besides, there was no time for an alternative plan in case of rain or excessive coldness.

The experience of having an activity in the playground space in the Ciudad del Plata Case was highly valued by the design team. The atmosphere that was created with the activity of going to plant a pennant was very motivating. Participants were enthusiastic about choosing a suitable place for the devices they had suggested. It appeared that to some extent everything the participants had previously done in the workshop suddenly became more tangible. It is possible that through linking activity to a physical location, it made it easiest to comprehend the purpose of the workshop while bringing a sense of belonging to the place.

PARTICIPATION STAGE. Examples of co-design with early childhood are limited throughout the world, but in cases of working with middle childhood, the need to devote sufficient time is always emphasised, so that the dynamics of exchange can take place in a trusted environment. It is even more pronounced when working with groups that are vulnerable or have communication difficulties. Clearly, these include early childhood and, in many cases, their adults of reference as well. Interaction with this age groups requires time and specific tools that contemplate their proficiency in communication and dynamics. Quality time, and a lot of it, is needed to establish a bond of trust in these cases to engage in fluent, meaningful interactions.

The structure of *Barrios* did not allow enough time for co-design instances or to generate continuity in our relationship with the community. This complicated the meetings and engagement with young children and their families in co-design workshops. However, the most challenging aspect was to attain continuity in the communication with participants, since the team had to devote themselves to the design after having made the workshops and visits. At the time of the project there was no planning about how the work with early childhood in the community would be developed. After the delivery of the technical and final report the design team becomes disconnected from the project and there will be no closure with or for the community.

The development of appropriate co-design tools is not enough to rectify a complex situation like this in isolation. Considering the end-users' characteristics and the timeframe allotted to participation, one should consider what else can be adjusted, in addition to the co-design tools, for the effective promotion of end-user participation. The phase in which such participation occurs as a possibility, since the time dedicated to co-design was seen to be a viable alternative, least of all in these studies.

Each *Barrios* project lasted from 3 to 5 months. In every case, the participation took place during the first month of the design process. Design processes were followed by a series of bureaucratic steps, mainly linked to the call for tender, which extends many months till the beginning of the construction phase. This presents a significant gap between the time of collaboration and the materialisation of the playground. As instances of co-design belong to an early stage of the design process it is possible that those who participated will not see their ideas embodied

in the final proposal. This is just a thought, but it is something to be considered and, ultimately, re-evaluated. We were also unable to assess whether our presence and workshops generated expectations that have since been left unfulfilled.

Occasionally, something beautiful and strong was created in the workshops, something that will probably fade away in time and if not capitalised on, like a fire suffocating on its own ash. It may be convenient to revise the stage of process that the community is involved in, since our target audience generally came from vulnerable contexts, designs for tomorrow and tomorrow's tomorrow are probably too remote as they are more narrowly focused on solving their day-to-day problems. In this way, involvement and appropriation seems more likely to happen if they are given the opportunity to participate in something more tangible and with immediate, observable effects.

OUTCOMES AND EMERGENCE OF OPPORTUNITIES: Outcomes result in opportunities to amplify the voice of early childhood.

The co-design processes utilised as case studies generated some tangible and intangible outcomes that guide our evaluation of what can be achieved through participation. The outcomes that are most relevant to the case studies are the intangibles and the opportunities that arise from their identification.

CO-IDEAS. Tangible outcomes are directly linked to what emerged in the activities of the co-design workshops because they embody the voice of the participants. These are the concrete results of the conversations in the working groups: the ideas proposed for the playgrounds and the drawings and models that accompany them. In some cases, these outcomes were richer than others, influenced by several of the aspects mentioned in previous points. In the Florida case when we carried out two workshops with end-users, we obtained results that showed a progressive development, although the majority of the participants in each workshop were different. This was the case where the idea generation of the workshops truly influenced at least the first of the subsequent designs for the playground.

In the Ciudad del Plata case the tangible outcomes of the unique co-design workshop was its rich material, in the sense that it allowed us to obtain insights from the community. However, the results were very general as the time available was too short to co-create more complete or creative results. As for community input in the co-design of the playground we prioritised their desire for a safe space for children of all ages to play and socialise.

In the Villa del Carmen case the results were mostly considerations about the problems presented by the square and general suggestions regarding the proposed playing devices. We took elements to draw but what was generated was almost exclusively verbal. For the design of the playground, the results of the workshops taken as input were mostly recommendations, but it was not a conceptual input, as in the case of Florida, or inspiring, as in the case of Ciudad del Plata.

CATALYST. Co-design experiences appeared to have an activator effect in local actors.

“With the routine one forgets how important it is to do these things”.

School Director, Ciudad del Plata.

The design team expressed frustration with the difficulties encountered in the co-design workshops and the lack of attendance or participation by end-users. However, we received positive feedback in all cases from the local UCC representatives about what had been achieved and satisfaction with our working methods during the workshops. What we found most remarkable is that in some cases the experience of the workshop served as an activator for some local actors and their ideas. In the case of Ciudad del Plata this “activator” manifested itself through the enthusiasm generated by the School Director, who expressed her interest in conducting these types of activities that were deferred by the routine affairs of everyday life. To gain momentum after the workshop, she took the opportunity of devising a holiday called “Friend’s day” where residents would go out and hug people in the neighbourhood. In that same workshop, school children asked the design team repeatedly when we were coming back. These are examples of the positive synergy that had been created which was very motivating for all parties.

The working methods we used seem to be innovative and attractive to UCC representatives and local operators. It is worth asking if these methods of intervention could that have an opportunity outside the realms of co-design, concrete participation and the playground. One might extrapolate that the tools that we used were designed to be transferred and used by local operators for other purposes associated with their work in community participation. This way early childhood voice could be further increased in different dimensions, over time.

EDUCATIONAL SETTING. A lack of awareness in our target population about the relevance of play for child development was detected from early on. The potential of using co-design workshops as a platform to bring information to families about other issues regarding child development besides the role of play could have positive educational results in these communities. In Ciudad del Plata, we specifically reviewed this issue in

our casual interviews. When we asked parents why they believed it is important for children to play, no reply was linked to their development. They were mostly focused on the need of expending energy and getting tired. If they ignore the importance of play in childhood, it is difficult for them to justify their own active involvement in playing with them or their desire to provide better conditions for them to play. It is important to highlight that one of UCC goals with the Barrios project was to reinforce the child-carer bond. In this sense, I consider that the co-design workshops should be reframed in a way that reinforces its possibilities as a learning environment for every party involved.

The discussions during the co-design workshops present the possibility of actualising this opportunity. Those taking an active role in discussions were the institutional actors while end-users played a more passive role. This does not necessarily have to be considered a negative dynamic if it is taken as formative to a greater process, since being present in the discussion about what is suitable and healthy for the development of children may be an opportunity to receive such information without the structure of formal lessons. The exchange of ideas and reflections upon them in which all involved can provide bilateral insights and opinions could be considered as an intuitive design for a community development of the awareness and education of general, local issues.

Mothers and other carers are the ones who know how to raise their children in the context in which they live, what their children enjoy, what they enjoy as carers, how they play together. They are the only ones who can provide information regarding their needs, wishes and dreams. It is important to keep the discussions reciprocal, understanding that each participant has something to contribute and thus reinforcing that all voices are equally valuable.

DESIGN REGULATIONS. The safety standards of playing devices were a recurring concern in co-design workshops. In the first workshop in Villa del Carmen, for example, the Medical Doctor from the local agency of the Ministry of Health pressed the issue of injury prevention through the deployment of secure devices. When the child reaches his first year of age, the size of his head is inferior to the rest of life, indicating that the head is very big and heavy in relation to the rest of his body. The MD explained this to illustrate how exposed young children are to suffer serious falls due to the imbalance that the head causes and insisted that a fall from an inappropriate height could lead to permanent head trauma. The design team collected this and other concerns, since playground designs must consider such safety measures in place to ensure healthy play in every sense, as in it promotes their development as it promotes the child’s physical integrity. Different countries have different safety regulations for playgrounds, some of which are very strict and others have more flexibility. In fact, there is a great deal of debate about how much protection children need with very high safety standards -USA defends this position- and how much risk should be left in the environment to learn about risk management as well -Europe embraces this position-

(Spiegel, 2014). Although this is still an active debate, it is apparent that a degree of safety standards should be required. Therefore, when faced with the inexistence in Uruguay of such regulations regarding playground safety standards, the design team used child safety guidelines from Spain, as reference for the development of the equipment.

We then face a contradiction when co-designing - seeking to identify local problems with tailored solutions - and then using safety guides from other countries where the resources used for infrastructure are much higher than those available in Uruguay. In some countries, for example, it is established that the floor for children's playground should be made of safety rubber pavement. Using this type of pavement entails a very high cost, which is not possible due to the budget limitation of these cases in Uruguay. This raises the question of who ends up deciding the degree of security that is applied in each playground. Safety standards are a matter of public policy and each country should define the way in which it wants to protect its children.

By working on a UCC program, self-defined as a public policy of national scope for early childhood protection, detecting this regulatory vacuum of safety standards can lead to addressing the existing deficit. Here we detect the potential to influence public policies from what has emerged in the workshops and the absence of regulations in playgrounds design.

5.3 HOW WOULD IT BE IN URUGUAY

How would the co-design of facilities for public spaces with early childhood in vulnerable communities in Uruguay work? What can be learned from this experience to co-design in general?

POLITICAL AND INSTITUTIONAL FRAMEWORK. The project structure was affected by political tensions and does not have the power to dispel them. There were institutional and political issues that influenced the project. Particularly in the phases before and after the intervention of the design team. The generation of agreements between the County Municipalities and UCC and the concretion of the construction appeared particularly challenging due to contemporary political commitments and tensions. The characteristics of the project do not help to dissipate these difficulties. In fact, these characteristics accentuate uncertainty and hindered understanding between the parties. Therefore, the project itself catalysed political tensions at the expense of the communities and the design team. However, it is possible to identify some aspects of the design process which do not favour this conjecture and might be reviewed.

In the first place, the agreement between the UCC and County Municipalities was difficult due to the lack of a tangible initial proposals and estimated cost. Faced with this situation UCC representatives expressed in meetings with the design team that they faced a difficulty from the offset: seducing the authorities of the County to invest in this project.

Secondly, the length of the process from inception to completion, its complete design process in each locality, to which a subsequent bidding period is added, did not help ease political commitments. Along the process problems kept appearing that seemed to be represent their lack of interest than a real difficulty, but each issue nevertheless managed to jeopardise the execution of the project. This project was dependent on the fluctuating priorities of political actors was therefore constantly modified throughout its process, as occurred in the Florida Case. It is already a fact that the playground for early childhood of that locality is not going to be built. In the Villa del Carmen case, the concretion is in doubt. However, the playground in Ciudad del Plata is in its final execution stage, probably due to the existence of a key political actor –the City Mayor- with the same political alignment as UCC.

It is evident that the Barrios project, was not concrete enough to fight the many circumstances that threatened it since its inception. There was no tangible initial proposal or an estimated budget for its construction and the processes were complex and long. Through practice we learnt that the elements that threaten the opportunities of the voice of young children exceed the participatory experiences with the end-users. Therefore, it is appropriate to rethink how we can minimise these threatening factors that limit the generation of agreements for the creation of playgrounds and the completion of agreed projects.

Understanding the need to change the structure of the project to prevent escalating political tensions presents the opportunity for the new structure not only to avoid increasing difficulties, but also to help dissipate them.

LIMITED RESOURCES. Time available is inadequate for project requirements.

“One needs many hours of butt on the floor”

Early childhood specialist at early childhood symposium, Montevideo 2015

As mentioned previously, co-designing with early childhood requires sufficient time to generate the bond of trust necessary to interact fluidly and with the right atmosphere. At a symposium for early childhood that took place in Montevideo in 2015, a specialist working with young children mentioned that, to design for early childhood, one needs to spend

many hours “...on the floor”. Alluding to the necessity of dedicating time interacting with them and levelling with them to try to get to know and understand what it is like to be a young child. This, we did not accomplish. The project Barrios has an extra challenge, since it is developed in different areas across the country. The further away from Montevideo the location was, the harder it was to exercise collaborative dynamics as the design team lived and worked there. As predicated the most affected by travel difficulties due to the setbacks encountered on the trips occurred in the case of Villa del Carmen, the most distant from Montevideo. The time allocated for the design team to be in the locality was always tight and the setup of the workshop was always under pressure but we did our best to remain in good spirits whatever the conditions. There were no instances of casual conversation with the community outside the scope of the workshop since in both occasions the team had to leave shortly after ending the workshop. In addition, we once took a wrong route and arrived after the arranged start of the workshop. Both the unforeseen situations derived from distance and the task delegation to local operators marked a clear loss of control in certain aspects of the design process.

Interventions in public spaces have a certain degree of complexity on which it is necessary to expand upon. The deterioration of time, vandalism and the possible misuse of elements demand proposals that are specifically adjusted for this purpose. The devices themselves are just the beginning as the space design also requires on-site work that necessitates being and feeling the place, understanding its use, flow and environment, its essence and significance, etc. There may also be symbolic and identity aspects of the place that must be considered and included. Designing for public spaces implies a greater challenge, and it requires special attention to every proposal.

To attain better results through co-design it is important to consider every case as a part of a greater whole in order to acknowledge to the complexity of the entire project. Considering that we are intervening in public space, it becomes important to involve the entire community, although we need to analyse how to do so without hindering early childhood participation. It appears that the project Barrios, as it was planned, was inefficient due to its scope and lack of available resources. Therefore, it became a poor expenditure of resources, luxury that the country was not in a position to make. A central aspect, beyond co-design, referred to the ambition of the project in relation to the time allocated for it.

Being pioneers in the area for the co-design methods we are applying does not have many antecedents in the country, giving us the privileged position at the forefront of this practice, but also confronts us with little experience in its practice, adaptation and evaluation to our immediate context. This is why it was a great opportunity to be able to explore such methodology dependent on the support of UCC. But it was also a responsibility that forces us to revise the path we have followed so far and make changes where considered necessary.

5.3.1 BARRIOS REFRAMED: AIMING FOR IMPACT AND SUSTAINABILITY

“One of the challenges of conducting projects in a developing world context is how to achieve sustainability and impact in such a short amount of time and with such little resources (especially, having limited time and ongoing contact).”

Hamidi et al., 2014, p. 83

Through analysis of the case studies we detected difficulties and opportunities that could be considered as learning examples to build from and then restructure the project Barrios accordingly. This time, with special consideration on available resources and the realities that we face in practice. Therefore, based on the weaknesses detected in the working model that we followed, I have designed a proposal that is aligned with Hypothesis 2: According to the body of research that set the framework for this paper- in which the structure of the project is modified.

The objective is to achieve a more efficient model from the perspective of the functional use of resources while effectively determining ways to promote participation and amplify the voices of those in early childhood. In summation, the new structure intends to optimise the use of resources to achieve a higher level of impact and sustainability.

The new proposal redefines the reach of both the project and the collaboration. I suggest a new working format, which has two separate parts and, each part has different outcomes.

A. Creation of a co-design toolkit. It would be carried out only once and as a resource for project B. The toolkit would be composed by:

1. An adaptable and open system of early childhood playground equipment suitable for public spaces.
2. Co-design tools.

B. Co-design of play spaces for early childhood in different localities across the country. This project would be carried out in every locality interested in creating a public playground for early childhood in agreement with UCC. Toolkit created in project A would support the co-design phase conducted in part B.

Parts A1 and A2 are one-time-only, although it is desirable they be developed and modified over time accordingly with future evaluations and results. Part B would be replicated at each location that wishes to implement the system for the creation a playground in which the community participates. Figure 20, shows the scope for each project, in

the new proposal each aspect of the entire project would focus on concrete phases and task.

Part A1. This part focuses on the creation of a playground equipment system. It may be assembled or adjusted according to the needs and desires of each locality. Ideally, the system would allow flexibility for two main reasons; to aid and develop community participation in the design of the playground space (Project B) using elements of the system. The second flexibility of this condition would allow every playground designed with these elements to be unique and adjustable to the characteristics of the specific area. The created system should involve elements created to promote community's participation from the beginning, foreseeing a specific form of participation: for example, allowing them to define dispositions, arrange, adapt, produce, intervene, maintain, and modify them.

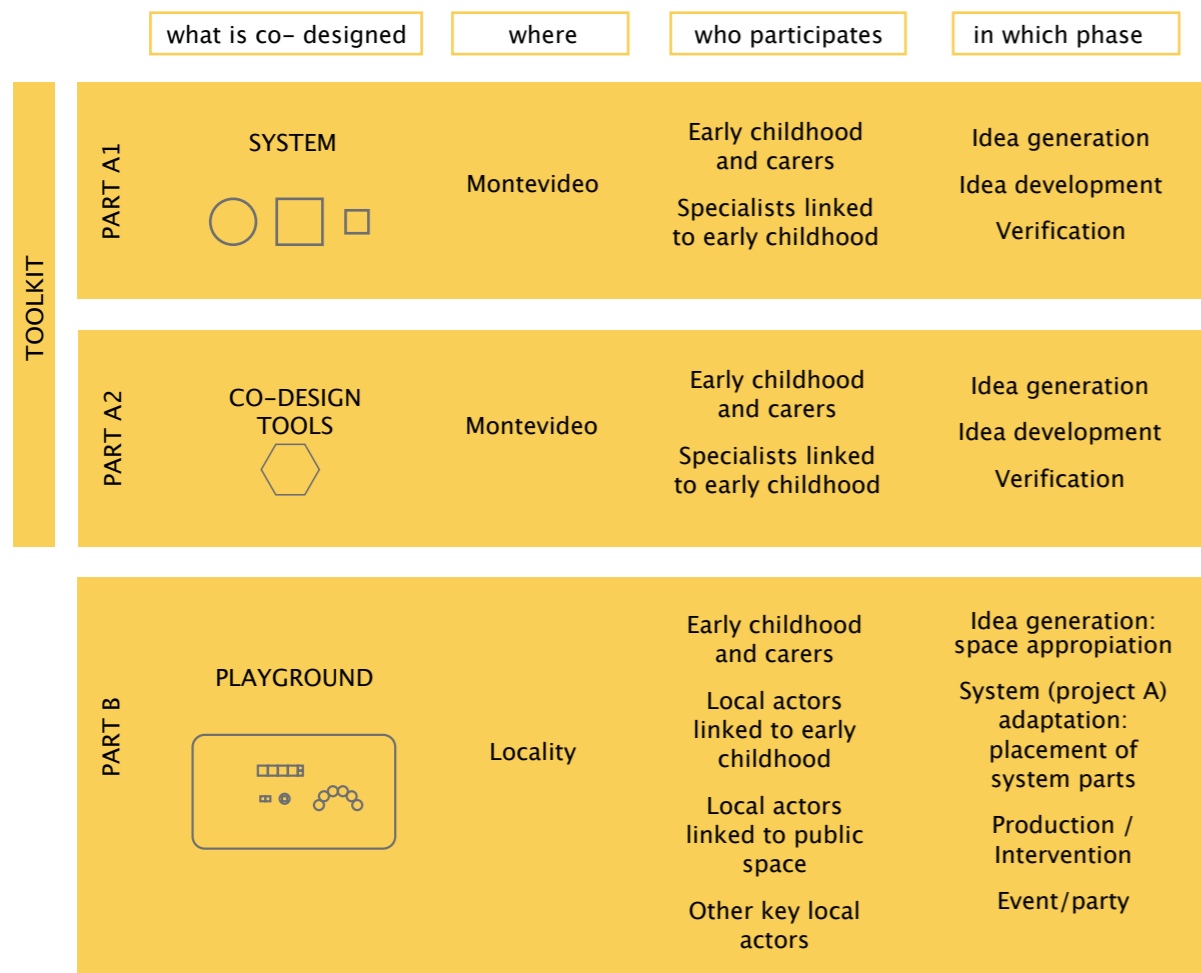


Figure 20: Co-design approach reframed into two projects attending specific issues

The design process of the system itself ideally would be carried out in close relation to young children and their families through co-design sessions. For the design of this section, the participation does not need to be rooted in any specific locality, but participation of families from vulnerable socio-economic contexts should be prioritised. Also, verification sessions would be conducted, through life-size models, and then developing prototypes that should be tested with end-users. Besides, the productive viability of the elements of the system would be revised in this phase.

For the system's development (A1), the consultation of experts in different fields such as childhood development, sociology, anthropology, architecture, urbanism would also be beneficial.

This project would only be carried out once, and after implementation it will be tested, evaluated and adjusted, through project B, until it is verified.

Part A2. In this part co-design tools with a wide scope would be developed.

Co-design tools developed as a resource for project B to employ and adapt the systems devised before. Such tools would be used to design the playground space. The co-design tools would support exploration of the system's possibilities and stimulate co-creation with the end-user. For this, it would be necessary to develop tools for co-design workshops that can guide collaboration with end-users. After experiencing difficulties in the interaction with young children and their carers, it is recommendable to model workshops and activities with them in a way that facilitates interaction between the dyad, through the use of life-size material elements, which promotes action while minimising variances of interpretation. The existence of such a pre-conceived system of equipment as well as the support of specific co-design tools that can explore its possibilities, is an improvement to the project of the presented case studies. The focus should be put on the creation of specific material with low level decoding and abstraction for intuitive and fluent use. The tools would be developed and tested together with the development of project A1.

As already discussed, participation then crosses over to other issues that extend beyond direct involvement of end-users. Therefore, we must also take care to develop the tools in function of these other aspects so that the participation does not collapse. For this, it would be necessary to develop tools that:

- Support communication among stakeholders, like UCC and the Municipalities, to promote the generation and completion of agreements. A catalogue of the system equipment for early childhood playground possibilities and budget estimation might be created. This way major uncertainty can be avoided, as Municipality representatives would then have a reference of what they can expect to gain from their investment.

- Support communication among UCC local actors and design team to promote partnership. Promote relationships between key local actors and the design team. Both with the aim of reaching local families. Specific material might be created for meetings and co-design workshop with local actors.

- Support communication among local actors and local community regarding the project Barrios. Material developed with the aim of clarity and cohesion to prevent distorted messages and objectives might be created.

- Contemplate the potential of using the tools for working with the community beyond the design of the playground. The toolkit might consider, for example the opportunity of the co-design workshops as educational setting. Besides, the developed tools might be transferred to local actors for their own use with families. This way, the project facilitates the amplification of voices in the long term if we can give them, not only the experience and the playground, but also local operators who are equipped with tools to 'co-create', which can empower everyone involved.

In this manner, we would be generating a long-term voice for marginalised voices once the design team has retired from the project.

It is advisable to have the same team carrying out Project A1 in charge of project A2 as well, or to have both teams working hand in hand. For Project A2 to be a useful resource for Project B, it is necessary to generate a guide with suggestions for the use and application of all processes included in the toolkit.

Part B. In this part, the design team would work alongside local populations in the co-design of the playground, i.e. the arrangement of the system devised in project A1 for each locality. The job would be aimed at deciding which of the system's elements would be combined, where they'll be placed, and how to display them. Generating the various modes of proposals for play and layout possibilities. Depending on the possibilities of the system, colour, type of material, intervention or method of production may also be defined alongside the community during these sessions.

To maintain a fluent exchange between all involved parties, we rely on the co-designed tools devised in Project A2. This part of this project would focus on collaboration with the local community and stakeholders. Other features that will be reflected upon include the spatial design and display elements. This new format opens the project to further local relevance. For instance, having contact with local media or event planning to present playground proposals with presentations related to the importance of play in the early childhood. In this manner, it can incite personal and cultural value to the shared spaces and to encourage the care for future what will be constructed.

The new format allows for team rotation of those in charge of Project B, utilising the skills of various teams working in parallel on different cities. These teams could be composed with less members than that of current project, as this was a matter of concern highlighted by supervision of the EUCD.

This proposal uses more focused, ordered and manageable tasks to account for the time available. Both time and focus would allow room for discussion about early childhood and its relationship with play and public spaces. The contact with local actors and community would increase in relevance, drawing attention to these issues.

In short, this is a proposal based on how I view the working method could be organised to generate and design playground equipment for early childhood in the vulnerable communities of Uruguay, and to achieve a resonating effect through co-design, promoting the empowerment of the population in public spaces across the country.

5.3.2 BARRIOS: INTO ACTION

I have recently proposed this new model for how to conduct co-design projects to the UCC and EUCD. It has been accepted and at present they are looking for funding in order to set Part A into action.

This is perhaps the most positive outcome from the analysis of the presented case studies as it provides a scope to test the conclusions we have made. As it provides more control over the variables that impaired the present case studies, we can put our theories into practice to conduct a project that can accurately implement and measure the effects of co-designing with and for young children in vulnerable communities.

6. CONCLUSIONS

The limited attendance of mamatotos in workshops demonstrates that the involvement of families with young children in participative activities is the first obstacle we face in the attempt to co-design with early childhood. This difficulty impaired our ability to understand the challenges and opportunities that arise when co-designing with the dyad mother-baby. In the minimal, fleeting moments in which we could achieved its participation, it became relevant for the rest of the workshop and caught the attention of all participants. These moments show the pertinence in insisting upon the attempt of involving the dyad mother-baby in future work into co-design process.

To continue exploring in this direction we need to achieve a larger attendance of end-users to increase the depth of our understanding. It is important to improve the partnership and relationships with our gatekeepers to the communities to achieve greater attendance. We assert that the design team must be aware of the spontaneous generation of gatekeepers. In either case it is presented as fundamental to establish agreed objectives and tasks.

Since we are working with public spaces it is desirable to have wider community participation but there were certain considerations due to the nature of the end-users in question. We conclude that it is desirable if participants present in the same sessions as end-users are close to or are at least acquainted with one another to ensure confidence in the end-user to produce participation and a warm environment for idea generation. Other desirable participants are those with direct links to early childhood as they are already sensitised to the issue. This is not always possible, however, for several reasons such as scarcity. So, in cases when the participation involves actors with no direct link to early childhood it is important to generate specific material that sensitises them with the theme if they are to work on co-designs for early childhood.

It appears that conducting participative situations in a space intended for early childhood has positive effect on the dynamics and engagement of the entire group. This is because the environment primes or triggers the participants to think of the vulnerable group being represented and thus they become relevant. In the case of early childhood participants in schools or around equipment already designed to their needs were thus sensitised and tended to maintain a focus on early childhood.

When co-designing for public spaces and working with early childhood and vulnerable communities it is important to consider that there are some activities that may be more suitable than others, or unequipped to deal with some requirements of the workshop. If there are such difficulties, as occurred in these case studies, it is important to organise the sessions to compensate for them.

Activities which involved body and movement are recommended for future explorations with the dyad. Other types of activities that were advantageous to these explorations were those that were inspirational in nature that promoted participation in the core activity that immediately followed it. We conclude that inclusions of such activities are beneficial outcomes, atmosphere and idea generation during the workshops. A desirable effect occurred when the participants could interact directly with the location of the future design project making the purpose of the workshop become more tangible, perhaps adding a sense of belonging to the space. We assert that, in case it is possible, scheduling is thus integral to ensure that participants have the time to interact with the space in a meaningful way.

We conclude that the stage at which participation occurs is an important consideration when co-designing public projects. In this project, there was significant gap between the time of collaboration and the materialisation of the playground. When engaging communities from vulnerable contexts and those in early childhood it is important that there is temporal relevance in the projects due to their general conditions.

The intervention of gatekeepers and local actors are quintessential for community engagement. As mentioned, future projects should be structured to track the generation of these catalysers. We can conclude that these methods of structuring intervention could be beneficial if generalised beyond the scope of these studies and even this field and if these tools are utilised by local operators for further community participation.

A lack of awareness in our target population about the relevance of play in child development was detected from early on. There are numerous other holes of knowledge related to early childhood development that could be addressed using co-design workshops as a platform to bring information to families and communities.

Co-design workshops should be reframed in a way that reinforces its possibilities as a learning environment for every party involved. Our assertion here is that a focused platform for the sharing of ideas and information is a functional method of providing informal education for and about marginalised communities.

Despite being unable to make additional conclusions regarding the implications of dyad participation, the case studies provided us with information about certain aspects, which appear to be beneficial in the attempt to increase the voice of those in early childhood.

Being guided by empathy was not sufficient by itself to promote mamatoto participation as the planning and creation of specific material for these end-users has been found to be equally as necessary.

There are other issues which are not directly related to participation but we have found still has a substantial impact. The limited resources in relation to the scope and complexity of the project as well as the involvement of various public entities with their own private agendas and the political tensions that surround them. To aid these problems, a special toolkit is suggested.

I learned many things about the intricacies of co-design from the practice of this project that I never would have been able to understand from mere theoretical research. The shortcomings of the project highlighted central themes that taught me lessons no textbook or research paper ever could. Through them, I challenged myself to identify the realistic and positive outcomes possible in a situation.

Though my intention was to verify that when co-designing for early childhood we are designing for the mamatoto dyad, it became evident that many others dyads exist within the process. For example we could consider the following as dyads when re-evaluating the case-studies: the UCC authorities-Municipality authorities; UCC local representatives-EUCD design team; gatekeeper-community. If they are to be considered as dyads it is necessary to address their needs and desires as such to better approach the main objective of enabling early childhood participation.

Despite not having achieved participation of the mother-baby dyad and all the other things that failed, experience and leaning are baby steps in the right direction to involving the most vulnerable members of our population who generally have no access to the decision making or design of their physical urban environment.

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APPENDIX

CONSENT FOR THE USE OF PICTURES

AUTHORIZATION FOR THE PUBLICATION OF IMAGES

Family: The institutions and project team that are part of this project request permission to the parents or legal guardians of the minors who attend the co-design workshops, in order to publish the images of babies and children in which they appear - individually or in Group - with institutional character.

The right of access, rectification, update, inclusion or deletion of the data may be exercised in accordance with Law No. 18,331 on the Protection of Personal Data by means of a written communication to the Escuela Universitaria Centro de Diseño and to Uruguay Crece Contigo program.

Mr / Mrs with I.D.
.....

As the parent or guardian of
.....

I authorize YES / NO to use the images made during the activities concerning the project and may be published in digital or print media, for dissemination, within an institutional character.

Florida, date: / / 2016

SIGNATURE:

QUESTIONNAIRE GUIDE FOR NEIGHBOURHOOD TOUR

Neighbourhood tour: Ciudad del Plata

Questions for UCC:

Which institutions receive early childhood (0 to 4) attendance in Ciudad del Plata?

Locate them on map.

How many children go to a center for early childhood? How many stay at home?

What do they do during the day when they are not in early childhood centers?

How much do they use the public space / shared space (example sidewalk)? Do they know your neighbours? Is there an interaction with the neighbourhood?

What communication channels do the population of the area use? Eg.: radio, social media?

Question for neighbours:

Do your children go to early childhood centers?

Which one? Your child name and age?

What do they do during the day when they are not in early childhood centers?

Where do they play today? Specify cold and hot days.

How much do they use the public space / shared space (example sidewalk)?

Do you know your neighbours? Is there an interaction with the neighbourhood?

What communication channels do the population of the area use? Eg. radio, social media

How long have you been in the neighbourhood?

Do you think it is important for children to play? Why?

With whom will they go to the square? What other places are close to go and play? Which one do you prefer and why?

Locate on map.

What playing devices do you think are good?

What materials do you think fit?

What age groups do you think the square could welcome?

Would you like to participate in some way in the creation of the playing devices? How?

Name possible names for the square.