

The Magical Park of Aviacion

Lessons from a participatory design project with the children of Aviacion, Peru

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We had arrived in the Zana Valley of northern Peru the day before, and in the tiny village of Aviacion only that morning. Our small but enthusiastic team of seven had travelled from Canada to this remote, vulnerable community of about 150 families to work with their children over the course of two weeks to design and build a small community play space. Though some initial songs and games had helped to break the ice, we were still shy around each other, mostly smiling or miming pleasantries in an attempt to overcome the language barrier. Anxiety crept in and I began to worry that this participatory design/build process faced too many challenges to be successful – communication barriers, low budget, short time frame, difficulties obtaining materials and tools. But, unsure of what else to do, I pressed on with the day's plan.

Crowded together on benches in the modest community building, we prepared to listen as the children presented drawings of their favourite local play space or activity. I had asked if they could prepare these sketches ahead of our arrival both as a way of introducing us to the individual children and their preferences, and to prompt them to begin thinking about their existing play environments. As the children began to present their drawings to the assembled group, I pulled out my notepad and recorded the activities and preferences expressed. A palpable buzz rose up as the children began chattering excitedly with one another. Confused, I leaned over to Romulo, one of our interpreters, and asked what was up. After listening for a moment, he turned back to me and said “they can't believe you're writing down what they are saying”. Shocked that such a simple, unconscious act on my part – which demonstrated that I was actively listening to and valuing their comments – was so novel and unexpected to the children, I was instantly reminded that the playspace we would collectively design and build was not the most valuable part of this project, but rather the empowering process by which we would go about it. By positioning the children as the chief designers and decision-makers through this participatory process, we were affording them an opportunity that was rare in this isolated community – a chance to have a voice and an active hand in the development of their community environment.

Participatory design and planning is not, of course, a new idea. Advocates for such approaches have long promoted its numerous benefits for participants, including facilitating a sense of ownership and connection to place, and fostering community capacity and civic engagement. In theory, children have the right, enshrined in the UN Convention on the Rights of the Child, to be involved in decisions which affect their lives including the empowering experience of contributing to the design of their local environments. In practice however, providing children with this opportunity through participatory work is fraught with challenges, particularly the employment of effective methods for meaningfully involving children in the process. Even when well-intended, many approaches with children remain participatory in only a token sense. Unconvinced that children have the capacity to understand their environmental needs and wishes, and to translate them into practical designs, adult facilitators often fail to position children as the ultimate decision-makers, and in turn miss out on the most valuable benefits that can be realized when appropriate strategies are utilized. My experience with the children of Aviacion, Peru reaffirmed my belief that, given the right tools and opportunities, all children have the intellectual and creative capacity to genuinely contribute to the design and development of their community spaces. This article will use the example of a design/build project with a

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community of children in Peru to illustrate strategies and activities that can be used to conduct successful participatory planning projects with children, regardless of context.

Children as primary decision makers

The key, in my opinion, to any participatory design or planning exercise with children is to find ways that authentically establish them as the primary designers and decision-makers. The main challenge in accomplishing this is not the abilities or interests of the children, but rather finding ways to provide them with the knowledge and tools they need for informed design and decision-making. Our specific objective in Aviacion was to introduce the children to the principles of designing for diverse, inclusive and engaging play environments in order to inform their own designs for a local play space. However, in addition to the obvious language barrier, we were also working with a large group of children (up to 30), ranging in age from 2 to 15 years. As children of different ages and abilities will respond differently to various vehicles for exploring and developing design ideas – some may flourish during hands-on activities while others work best through group brainstorming – providing all in this large, diverse group with opportunities for meaningful participation required a **multi-component and multi-method process**. Using varied but complementary activities allows the process to move forward while addressing the differing abilities and comfort levels of diverse participants.

Several methods were employed with the children of Aviacion to communicate and explore the principles of play design. Initial discussions about the children's current play activities and environments were fostered through both the creation (and optional presentation) of **individual drawings of favourite play spaces or activities**, as well as **child-led tours of favourite community play spaces** where the activities were discussed, or in many cases demonstrated, in-situ (See FIG 1). The variation in modes and group size in which they could express themselves yielded a fuller, richer picture of both their individual and collective play experiences. A series of **photo-based presentations** were also used to communicate elements of and ideas for designing for play (See FIG 2). In addition to helping move beyond language barriers or differing reading/writing abilities, utilizing photographs of examples of both formal and



FIG 1: A few of the girls lead us to the top of the nearby hill, their favourite place for kite flying



FIG 2: Facilitators project photos and images to illustrate concepts and examples of play space design

informal play environments exposes children to a range of provocative ideas and spaces, including those that may be currently beyond their everyday experience, sparking imagination and creative juices. Care should be taken to **highlight projects or ideas that are appropriate to the culture and context**, including examples that



feature indigenous materials, techniques or practices. Examples which feature the use of common natural materials such as logs, boulders and sand are often suitable for most contexts. Acknowledging that children absorb information and concepts in different ways and at different rates, hard copies of all photos were progressively posted around the community room to allow for continued consideration and reference throughout the project. The language-free imagery of the posted photos also served as an effective catalyst for communication between the Peruvian children and the Canadian facilitators, helping to bridge the language gap (See FIG 3).

FIG 3: Posting copies of design-related images allowed for ongoing reference and a catalyst for group discussions

In addition to using the photo presentations to explore potential building materials for their designs, children investigated local materials and their properties through several hands-on activities. First, the children set out on **community material inventory tours** where they observed and/or photographed the materials commonly seen in their community, noting interesting ways in which they were used, as well as appealing textures, shapes and patterns (See FIG 4). Later, common local materials such as adobe brick, sugarcane and rubber tires were laid out in separate **materials play stations** (See FIG 5). Groups of children rotated through the stations every 20 minutes or so and were given free rein to interact playfully with the materials to test their properties and possibilities. Many experimented with the materials through the building of whimsical temporary structures and sculptures (which provided as much entertainment in the tearing down as in the building up). This kind of playful exploration of materials proved vital in helping the children to refine and finalize their designs.



FIG 4: Children noted or took photos of common materials and interesting textures found around their community

Interspersed through all these activities were **many opportunities to sketch out and develop budding ideas**. These opportunities were progressive in that they began first by working



FIG 5: Material ‘play stations’ allowed children to test material properties and possibilities

individually or in small groups to make note of or sketch out the examples they found compelling as well as their own original ideas; the children then moved on to further design development within larger groups, where ideas were continually refined and combined with those of others to create a single collaborative design (See FIGS 6 and 7). Providing the time and occasion to work both individually and in small and large groups gives children a chance to flourish in the settings and modes that are best for them, and to capitalize on both individual and collective strengths.



FIG 6: Sketching initial ideas individually or in small groups



FIG 7: Working in groups to produce collaborative design

Legitimate roles for all

A group with such large variation in age and ability presented a significant challenge common to most participatory work with children, that is, finding **legitimate and meaningful roles for all participants**. The lower age limit we suggested for the project was 8 years old, but we quickly realized that many children this age or older were responsible for caring for younger siblings while parents worked, and so we had many younger children around most times, even toddlers and infants! Though the very youngest of course could not be integrated easily in the project, many of the strategies we employed to provide opportunities for all the older children in the end proved effective including children as young as two years old in many aspects of the project as well.

But what do these ‘legitimate’ or ‘meaningful’ roles look like? In many ways this approach comes down to ensuring that children experience a **high degree of control and engagement in as many decisions and activities as possible**. Though this degree of control should be conferred **in accordance with children’s abilities**, the primary obstacle is that adults, admittedly sometimes including myself, often underestimate children’s capacity for creative yet reasonable ideas and astute decision-making, and remove decisions from the hands of children too early in the process. Over time I’ve learned to try to **sit back and trust the abilities of the children**. I’ve also come to firmly believe that a participatory process with children cannot be successful if the adults involved in the process are not willing and able to give up a large measure of control – or in some cases, complete control – over many aspects. Adult facilitators can certainly be on hand to advise the children, or demonstrate and guide them through the development of new skills, but children must feel that they are ultimately responsible for the outcomes of the project.

An effective way of reinforcing with child participants the control they have within the process is to in turn ‘saddle them’ with the responsibilities that go along with that control. On my first day in Aviacion I told the children, “*you’re the boss.*” A novel concept greeted with glee and anticipation. However, I explained that **with this control came the responsibility to care for and be actively involved in all aspects** of the development of the play space. This included being responsible for measuring the dimensions of the site (where even some two-year-olds were responsible for holding measuring tapes) in order to preparing



FIG 8: With control came responsibility, such as taking accurate measurements of the site and creating scaled site plans for their designs

accurate scaled base plans, and for brainstorming solutions to challenges, such as how to transport large rocks from the river located over a kilometre away (See FIG 8). This transfer of responsibility also means that adult facilitators have to give up the idea that there are hard and fast rules for how a solution is developed or a task completed. Children are unlikely to go about a problem in the same manner as an adult. However, allowing

them the room to navigate through the challenge as they see fit, stepping in only if asked for guidance, can also produce some of the most creative solutions and memorable moments in the project, let alone the most empowering.



FIG 9: A few of the children learn how to lay out an interlocking stone platform

create something to contribute to the final space, such as making their very own stepping stone to place in a pathway or garden, or painting their own 'bubble' of space within the large wall mural (See FIG 11). With a little forethought to the various elements of each task, and integrating small creative projects, all children will be able to participate in a meaningful way.

Another strategy for facilitating meaningful engagement was the integration of an informal **mentoring program** within the process which fostered both a sense of control and the development of



FIG 11: Each child is given their own 'bubble' of space on the wall mural to decorate as they'd like

Finding legitimate roles for all participants will always be a challenge, particularly with a diverse group exhibiting wide variations in abilities and interests. However, almost **every task or project can be broken down into smaller roles and tasks**, many of which can be carried out by even the youngest children, such as transporting or preparation of materials for jobs around the site, or else can provide the opportunity to let a child try their hand at new skills, such as laying interlocking brick, or building a fence (**FIGS 9 and 10**). In Aviacion, we also integrated a number of art projects that allowed all children to personally



FIG 10: Children learn to build a cane fence using a common local technique

leadership skills, particularly among the oldest youth in the group. Children were divided into 4 large mixed-age groups for the duration of the project, with the older adolescents in each group designated as leaders responsible for organizing and guiding their younger group members. This included keeping

records of the observations and ideas of their group, and working to include all members in the completion of activities and tasks. Many of the youth blossomed under these responsibilities, and demonstrated incredible patience and generosity when interacting with their younger cohorts. The younger members responded extremely well to the direction and guidance of the adolescent leaders. Such mentoring ‘ladders’, where participants are both learning from those more experienced and supporting the learning of those younger or less experienced, can be established formally or informally in almost any project, and supports engagement and skill building on several different levels.

Though many tasks were assigned to children based on their age and ability, the playing field was levelled when it came to a number of the **democratic processes** that were embedded within the project. All child participants, regardless of age, gender or ability, had an equal vote in a number of critical decisions about the playspace. For example, after each of the 4 groups had developed a final design, every design element or concept featured, such as ‘a place for resting’ or ‘a place for climbing’, was transferred to single piece of paper, which were then posted on the walls around the room – 25 concepts in all. After each group presented and ‘pitched’ their design ideas to others, each child was given 10 coloured stickers with which they could ‘vote’ for the ideas they thought were most important or exciting (See FIGS 12 and 13). By tallying the ‘votes’ given to



FIG 12: Groups present and ‘pitch’ their final design ideas to each other

each concept through this ‘dot democracy’ exercise, they collectively established the priority by which concepts would be fitted into a final merged design. Other democratic procedures included giving children the right to decide on the design concept for the wall mural, as well as the official name for the play space, both of

which were established through several rounds of loud and enthusiastic discussion and voting. Such democratic exercises can help to reinforce both a sense of control and foster a sense of personal connection and ownership over the space.



FIG 13: A 'dot democracy' exercise allows children to 'vote' for their favourite design ideas and concepts

An interesting outcome of the place naming process serves as a final poignant illustration of children's capacity for mature and thoughtful approaches to design and decision-making when given the opportunity. Initially, many of the suggestions for the official name of the playspace explicitly referred only to those children who were involved in its design. Though a clear reflection of their sense of ownership and responsibility for the space, an unprompted discussion among the children questioned the suitability of the name as it may suggest that other children in the community were not welcome. Deciding among themselves that their intent was to provide a place for play and gathering for all members of the community, they overwhelmingly (and raucously!) voted to name the space *Parque Magico de la Aviacion* - so that all children in Aviacion would feel welcome in this 'magical park' (See FIG 14).



FIG 14: The entrance sign for the park exhibits its chosen name

Benefits far outweigh the challenges

There is no doubt that engaging children in participatory design and building projects is challenging, and requires thoughtful and time-consuming pre-planning to ensure successful outcomes. It also demands flexibility in order to roll with the inevitable twists, snags, and derailments inherent in any design and building project, let alone the unpredictable consequences that come from placing a large amount of control in the hands of enthusiastic children! However, employing methods and strategies such as those outlined above can provide a viable framework for harnessing the powerful ability of children for wonderful, sensitive and engaging design. Though intense, tiring and yes, sometimes chaotic, I promise you the results will be miraculous, and one of the most satisfying and rewarding experiences for all involved (See FIGS 15 to 19 for BEFORE and AFTER photos). And it will be some of the most fun you've ever had.



FIG 15: The site of the play space 'BEFORE'



FIG 16: One view of the community play space 'AFTER' the participatory design and building process



FIGS 17, 18 and 19: The children of Aviacion enjoy the fruits of their labours – their new community play space

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