

Early Childhood & Community Development in Flamingo Crescent

Building Opportunities For Children Through Community Initiative



An Interactive Qualifying Project submitted to the faculty of Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor Science.

The goal of this project was to facilitate the development of a multi-stakeholder, community-driven design and construction process for a crèche and recreational area in the Flamingo Crescent informal settlement in Lansdowne, South Africa. In 2013, a Worcester Polytechnic Institute team from the Cape Town Project Centre contributed to a reblocking project that reorganized dwellings to improve quality of life and create space for a crèche and recreational area to support community and Early Childhood Development (ECD). For our project, we developed the framework for a partner support network comprised of community members, government, and non-governmental organization (NGO) partners that collaboratively designed, funded, and built a crèche in Flamingo Crescent. This was accomplished while simultaneously working with community members to develop a management committee for the crèche and recreational area. To document our process, we developed a guidebook to serve as a model of how to galvanize a partnership that addresses ECD as a central component of the upgrading process of informal settlements.

This is an executive summary of a WPI Cape Town Project Centre project that is fully reported at <http://wp.wpi.edu/capetown/projects/p2014/flamingo/>

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PROBLEM & OPPORTUNITY STATEMENT

MEETING THE NEEDS OF CHILDREN IN

FLAMINGO CRESCENT

Underprivileged children living in South Africa experienced a history of neglect due to the political ideologies of the apartheid government. Apartheid was a system of racial separation that was enforced by legislation in South Africa. In the 1950s, the Minister of Bantu (black) Affairs questioned the purpose of educating the 'Bantu' children because he believed their opportunities and potential were limited to manual labor (Atmore, 1998). This belief resulted in a skewed education system that favored white children who were offered education at no cost, while black children attended voluntary, tuition-paid schooling. This system resulted in minimal education opportunities for black children. Access to pre-school provisions for all children in 1998 was less than 9%, but for black children even lower at 6%. Although this has im-

proved over the years, educational and child care services are still poorly developed in informal settlements.

The informal settlement of Flamingo Crescent was founded 13 years ago in Lansdowne. It houses approximately 247 residents, 56 of which are children under the age of ten. To address overcrowding and safety issues, the City of Cape Town Informal Settlement Department along with the Community Organisation Resource Centre (CORC) and the Informal Settlement Network (ISN) intervened three years ago in Flamingo Crescent. The purpose of reblocking in Flamingo was to rearrange the shack houses to allow for the installation of a sewage system, paved roads, and a toilet, water tap, and electricity unit for each home. Alongside the partners, the community undertook an extensive reblocking process in May of 2014 to address the social concerns of the community.

Although reblocking helped to alleviate some of the adversity the community of Flamingo Crescent had experienced in the past, children were still playing in the



Before and After the Reblocking of Flamingo Crescent

streets and getting involved in hazardous activities. With the absence of space to be devoted towards ECD, there were few educational opportunities. Working alongside the CTPC, the community members of Flamingo Crescent took initiative to create areas for ECD that were set as an explicit goal of the upgrading process by reserving the space for the future development of a crèche and community recreational area. Although the initial crèche designs proved to be inadequate and had to be reworked, all the partners still committed to having everything set for enrolling students in January 2015.

PUTTING BACKGROUND

RESEARCH INTO ACTION

During the preparatory term, our team conducted research on the impact of a crèche and recreational space on ECD, on how to engage community in the design and collaboration process, and the management and operational components of a crèche. Although aspects of our project changed upon arrival, our research, supplemented with community input, kept us on track for creating strong ECD opportunities in Flamingo Crescent.

THE VALUE OF EARLY CHILDHOOD

DEVELOPMENT

Research has shown that the inclusion of ECD spaces in communities is a crucial component of a child's growth process. Crèches in particular provide a positive atmosphere for children where they can acquire new knowledge and skills that will allow them to develop an enjoyment for learning (Hirokazu Yoshikawa, 2013). In addition, playgrounds work to advance a wide range of basic social skills necessary for the developmental process of children. Through play structures and personal interactions, children cultivate cognitive and social skills imperative to proper development (Brown and Burger, 1984). The inclusion of elevated structures, containers, boundary settings, and circulation systems promotes behavioral development. With this in mind, the team aimed to create a playground that is aesthetically appealing while being intriguing and challenging for the children. By communicating this to the community through powerful visual documents, we were able to gather community input on which components would benefit the children of Flamingo Crescent.



ENGAGING WITH THE COMMUNITY

A major component in creating these ECD spaces was engaging with the community. An important first step was establishing a level ground and awareness that all involved are working hand in hand towards a common goal despite being from different cultures and socioeconomic standing. By utilizing icebreakers and interview questions, we could enhance collaboration between a variety of parties, which would result in ideas that reflect a large scope of experiences and beliefs (Boatman, 1991).



SUSTAINABLE OPERATIONS

The development of a crèche in Flamingo Crescent posed an interesting challenge. Being in an informal settlement, this crèche had potential to spark a bottom-up initiative to increase employment opportunities, cultivate parent involvement in the education process, and provide a space that is accessible for every child in the community (Zhang et al, 2013). In addition to the construction of the building, applying for registration through the Cape Town Municipality to receive governmental funding is crucial for the sustainability of the crèche operations. Funding the first operational year of a crèche in informal settlements is difficult because the high unemployment rates affects the regularity of fee payments. According to Hendler, Flamingo Crescent suffers from an unemployment rate of nearly 50%. To stabilize financial fluctuations, crèches often have several sources of funding coming from the government, community members, and local NGO's. In addition to these sources of revenue, asking local businesses for contributions, materials, and expertise can supplement crèche income and resources.

PROJECT PHILOSOPHY

This project required an innovative approach to the community upgrading process due to the unique parameters it followed. Working within a tight time frame while forming new relationships between a multitude of partners forced us to find a balance between differing philosophies and strategies on how objec-



tives would be accomplished. Given these parameters, what emerged was what we call a Participatory Development and Adaptation Process (PDAP).

This process draws from the Asset Based Community Development (ABCD) and Shared Action Learning (SAL) project philosophies. The ABCD approach works to connect with a community, assess their preexisting assets, and utilize these strengths to solve an existing problem ("The Asset-Based Community Development Institute," 2009). This methodology goes hand in hand with the CTPC SAL technique, which approaches challenges through the iterative process of connecting, planning, acting, observing, and reporting (Justo, 2012). Combining these philosophies, we developed the framework for a multi-stakeholder, community-driven participatory design and construction process.

PDAP involved all partners in an improvisational design and construction process that sought to best utilize each partners' assets

Participatory Development and Adaptation Process



and expertise. As problems arose, liaisons from each partner organization and community members would meet on-site to determine solutions to key design details. There were several instances where we had to work in areas we were not expert in, forcing us to strategize improvisational methods to push progress efforts forward. After each meeting, the design and financial plans were updated to reflect the new information. This ensured all partners and community members were provided accurate documents allowing them to track changes in the designs and budget. Construction projects in informal settlements rarely proceed on schedule, yet despite a challenging calendar and altering crèche design, the project came in largely on time and within budget, in less than two months.

MISSION STATEMENT &

OBJECTIVES

This project was intended to enhance opportunities for community and early childhood development in Flamingo Crescent, South Africa, by facilitating the design and construction of a community crèche and recreational area and collaborating with the community to achieve, along with our partners and relevant stakeholders, a community managed crèche that is a model for the informal settlement upgrading process.

We pursued our mission through a set of complementary objectives that informed every aspect of our project:

Recognize Context: Understand strategies for community development in low-income communities and explore the social context and history of Flamingo Crescent Informal Settlement.

Connect and Collaborate: Foster a healthy working relationship with, and gather first-hand insight from community members and all stakeholders to implement into plans and designs.

Plan and Design: Develop community-based crèche and playground designs to advance Early Childhood Development (ECD) through collaboration with community members, stakeholders, and partners.

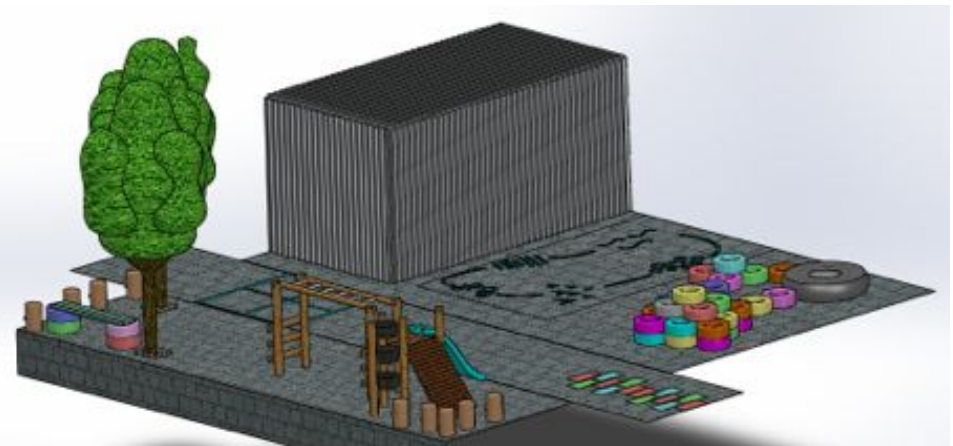
Construct and Improve: Construct crèche and playground structures through an iterative adaptation process in order to meet the communities' needs while adhering to the partners' standards.

Budget and Manage: Create and frequently revise a financial plan, design, and schedule for the crèche construction process to accurately reflect the current construction status.

Facilitate Management: Educate the crèche staff and community on the necessary skills to create a sustainable crèche management and funding system by convening a board, registering the crèche, and fundraising for contributions, materials, and expertise.



Community Leader, Elizabeth, renumbering the houses



Computer-Aided Design of the Flamingo Crescent Recreational Area

Document and Advocate: Produce a long-term sustainable model for similar informal settlement upgrading projects through documentation such as detailed manuals and online resources.

PROJECT OUTCOMES

Conceptualizing the PDAP process guided the project, allowing us to accomplish the core project goals. As a result, all of the tangible and intangible outcomes discussed below by objective are linked to this process-oriented achievement.

RECOGNIZE CONTEXT

In the first eight weeks of project development we focused on better understanding the context of South Africa, informal settlements, and Flamingo Crescent through research and interviews. Our research was comprised of crèche regulatory requirements, crèche quality determinants, effect of playgrounds on children, and the significance of community spaces. We conducted phone interviews with our partners to grasp the current state of the crèche design pro-

cess. Focusing on this research prepared us to tackle challenges once we arrived in Cape Town and resulted in the background research posted on our project website.

CONNECT AND COLLABORATE

Within the first weeks of arrival in the community, we formed a working relationship comprised of community members and partners that would collaborate to advance ECD efforts. The connection with the Flamingo Crescent community began by walking door to door with community leaders to renumber each house. This activity allowed us to interact with the community as a whole as well as give them a new official identity, something that is often lacking from informal settlements. The partnership continued to evolve through multiple meetings where all stakeholders voiced their opinions and contributed their particular expertise. As a result, we enhanced a long lasting relationship between the community and NGOs that functions as a support system to advance not only this project, but future projects as well.



PLAN AND DESIGN

In order to communicate key design details on site, we created a set of Computer-Aided Designs (CAD) outlining the building process that were shared with partners and on-site with the construction team. This became a reiterative process that worked to continually advance the project and ultimately resulted in the final crèche design. The true accomplishment behind the design and planning process was adapting to situational changes while respecting governmental regulations, evaluating differing stakeholder philosophies, and utilizing the construction team's assets.

CONSTRUCT AND IMPROVISE

Although it was not our original intention, we played a crucial role in crèche construction by helping install drainage pipes, a concrete foundation, and the outer frame of the building. At this point, we took a step back which allowed the community-led construction team to assist in more of the skilled labor. Taking initiative in this situation became necessary in order to meet the goal of finishing the crèche in time to enroll the children in January. We also worked alongside the community and consulted local businesses to develop a playground suited for the available space by developing custom components and utilizing recyclable materials. To ensure the longevity of the area, we generated community ownership by

involving them during the building, painting, and implementation processes. We also got the children involved through beautification activities such as murals. This process resulted in a standing and operational crèche and recreational area that enhanced the communities' assets and exceeded their expectations.

BUDGET AND MANAGE

This simultaneous design and construction process proved to be incredibly challenging and required substantial involvement in the operational process from the WPI team. However, by working to facilitate both of these processes, we were able to produce finalized architectural and constructional designs with the assistance of CORC and the Flamingo Crescent Construction Team. Based on these designs, we developed a detailed Bill of Quantities (BOQ) to keep track of all expenses and materials used, which was adapted throughout the construction process. We worked alongside ISN to develop a construction schedule with a set deadline. Through these two documents, the budget and construction timeline were closely monitored to ensure an efficient completion for this project. To make these useful in future upgrading processes, these documents were made to be easily recreated and adapted.

FACILITATE MANAGEMENT

To ensure the crèche operates properly, the community established a steering committee to represent their ideas and interests. This committee included an elected governing body, teachers, and kitchen staff. With the assistance of the CECD, the governing body was given tools and training to promote sustainability of the crèche operation. In addition, obtaining donations from local busi-

nesses and organizations was vital for acquiring funding for the first operational year. We created a Brochure, Project Information Packet, and Sponsor the Crèche for a Month Calendar to inform potential donors of the project goals. By approaching local organizations with these documents, the steering committee members got the opportunity to learn how to present their work. The primary intent of these fundraising efforts was to facilitate the board's growth and leave behind tools for all partners to continue fundraising after our departure.

DOCUMENT AND ADVOCATE

The team created two documents to assist similar projects in the future. The first is a How to Develop and Operate a Crèche manual, which is a step-by-step guide on how to construct a crèche while respecting the regulations set by the government. It also outlines how to manage and register a crèche and provides the necessary forms and docu-



Recreational Area Catalog, which includes a variety of example structures and their respective materials for construction. In addition, our project background research, process, and results were recorded and developed into our project website. This website along with our manuals will make this process a model for other informal settlements to utilize in future upgrading processes.

CONCLUSION

The informality of these settlements often forces projects to get postponed due to a lack of resources and commitment. However, with this innovative approach we were able to create an action-oriented environment that encompassed multiple stakeholders working towards a common goal to enhance ECD opportunities in informal settlements.

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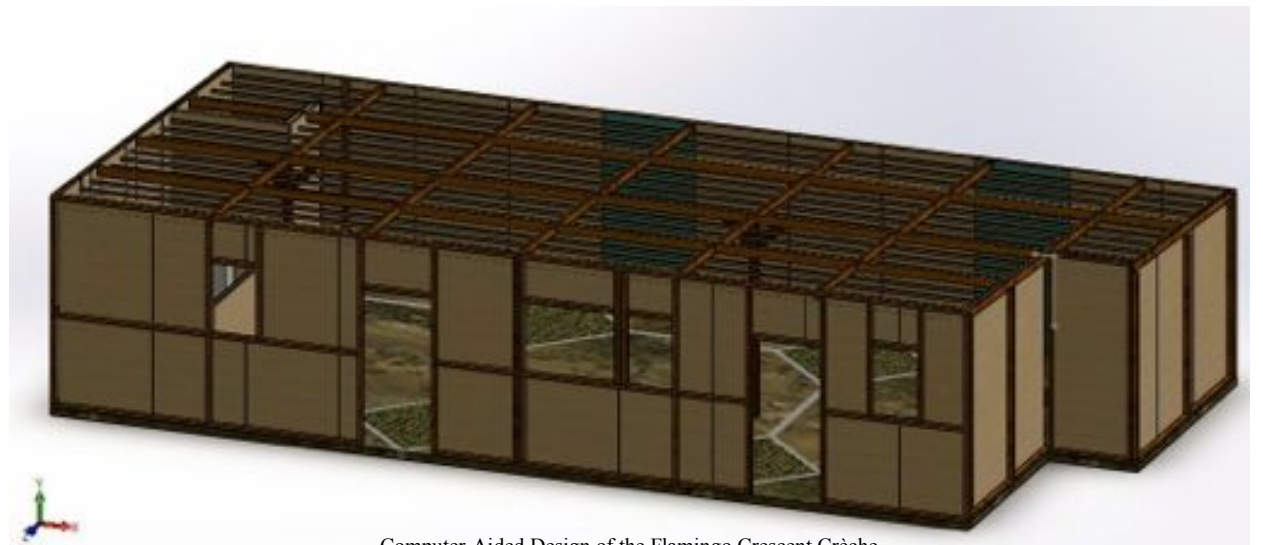
Afrisam – for a generous donation of concrete for the foundation of the crèche

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Our Advisors - Scott Jiusto and Steve McCauley



Final Picture Taken of Community Members, Sponsor, Partners, and WPI on December 12, 2014



Computer-Aided Design of the Flamingo Crescent Crèche

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