



**Sport as a Catalyst for Rural Youth Development:
A proposed Sports Centre for Ndwedwe**

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ABSTRACT

This dissertation investigates how Sports and Architecture can be used to alleviate the challenges of youth in rural areas and create a catalyst for their personal and social development. The focus of this research study is Ndwedwe, a rural town in Kwa Zulu Natal, South Africa.

Empowerment, Place Theory, Placemaking and Ecological Systems Theory were investigated to develop a theoretical framework to inform the design. To fulfill the objectives of this research study literature on Sports; Youth development; and the potential Social, Economic and Physical impact of Sports Facilities on rural development were investigated to develop criteria to analyze precedents, case studies and data from key informants.

The outcomes of this research were that Sport and Architecture can be used to catalyse the development of rural youth by applying a strategy of Positive Youth Development. Sport provides the structured activity to engage and inspire the youth and is integrated with tailored development programs to address their individual needs.

Rural areas have a lack of facilities that can act as social hubs for the community. A Sports Centre that is designed to be accessible, inclusionary and includes a variety of community services and activities can act as a social hub for the community improving social cohesion.

Rural areas are characterised by poor local economies. The Sports Centre can have a positive Economic impact attracting spending from outside the community by including revenue earning services such as Tourism and providing economic opportunities for the local economy by including market and trading spaces.

Rural areas are generally sparsely populated. Sport spaces can attract people in sufficient numbers to generate the appropriate density required for other developments. Physical impacts can be achieved by an appropriate urban design response creating linkages with other key locations in the context as well as co-ordinating the development of associated land uses in entertainment, dining and the service sector.

The conclusions and recommendations of this research provides guidelines for the appropriate architectural and urban design response to formulate a design solution for rural areas in Kwa-zulu Natal, South Africa.

COLLEGE OF HUMANITIES

DECLARATION - PLAGIARISM

I **Sumesh Govender** declare that

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
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Signed

.....

Sumesh Govender

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05 December 2016

DEDICATION

I dedicate this thesis to my wife, son, family, and staff at the University of Kwazulu-Natal who have supported me on this exciting and challenging path to becoming a Professional Architect.

“ Sport has the power to change the world...it has the power to inspire. It has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sport can create hope where once there was only despair.” Nelson Mandela (1918 - 2013)



*Figure 1: Quote by Nelson Mandela (1918 - 2013) at the Laureus World Sports Awards (2000).
Image Courtesy of Wolff (2013)*

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LIST OF ABBREVIATIONS

YEDS: Youth Enterprise Development Strategy

DTI: Department of Trade and Industry, Republic of South Africa

NYP: National Youth Policy

DRDLR: Department of Rural Development and Land Reform, Republic of South Africa

NPO: Non-profit Organisation

KZNSDR: Department of Sports and Recreation, Province of Kwa Zulu Natal

SRSA: Department of Sports and Recreation South Africa, Republic of South Africa

IDP: Integrated Development Plan

ILO: International Labour Organization

PYD: Positive Youth Development

DGMT: The DG Murray Trust

NGO: Non-governmental organization

KZNDOE: Kwazulu Natal Department of Education, Republic of South Africa

IOC: International Olympic Committee

FIFA: Fédération Internationale de Football Association - French (*International Federation of Association Football - English*)

WTO: World Trade Organization

SAAYC: Southern African Association of Youth Clubs

STATSSA: Statistics South Africa

GEM: Global Entrepreneurship Monitor

UNFPA: United Nations Population Fund

UNICEF: The United Nations Children's Fund

WFP: United Nations World Food Program

NYDA: National Youth Development Agency

OYDC: Olympic Youth Development Centre

NYS: National Youth Service

EPWP: Expanded Public Works Program

HSRC: Human Sciences Research Council.

LIV: Lungisa Indlela Village

CHAPTER 1: BACKGROUND RESEARCH

1.1 INTRODUCTION

This chapter is an introduction into the research problem.

1.1.1 Background Statement

This research study will focus on an architectural solution formulated around Sport to address the challenges of rural youth and facilitate their personal development. Current literature indicates that rural youth are inhibited from achieving their full development potential. The 2009 – 2014 National Youth Policy (NYP) states that rural youth are at a greater disadvantage than their urban counterparts due to having a lack of accessibility and availability of services; a lack of information; and fewer job opportunities (the presidency, 2009). Urban areas, unlike rural areas are characterised by superior civic amenities; higher quality education; improved public transport; a business sector that operates for longer hours; better opportunities for social interaction; and a higher standard of living resulting in more opportunities for urban youth and fewer for rural youth. The youth in rural areas are subject to harsh poverty and exclusion due to their socio economic circumstances resulting in exposure to issues such as crime, interpersonal violence, drug and substance abuse; child abuse; poor HIV awareness and exposure to the epidemic (kzncomsafety, 2010).

Table 1: South African working age population, 2008 - 2014 (StatisticsSouthAfrica,2014) illustrated by author indicating an increase in the youth from 15 – 34 years.

Age	2008	2009	2010	2011	2012	2013	2014
	Thousand						
15-19 yrs	4 989	5 047	5 095	5 130	5 156	5 167	5 164
20-24 yrs	4 704	4 752	4 806	4 871	4 940	5 009	5 075
25-29 yrs	4 441	4 515	4 580	4 635	4 688	4 744	4 806
30-34 yrs	4 075	4 091	4 127	4 188	4 269	4 363	4 460
35-39 yrs	3 431	3 590	3 720	3 812	3 868	3 902	3 937
40-44 yrs	2 740	2 780	2 850	2 957	3 098	3 260	3 420
45-49 yrs	2 435	2 479	2 516	2 547	2 573	2 601	2 646
50-54 yrs	1 978	2 049	2 116	2 180	2 238	2 291	2 338
55-59 yrs	1 561	1 601	1 646	1 697	1 758	1 825	1 896
60-64 yrs	1 189	1 233	1 276	1 318	1 357	1 395	1 435
Total	31 544	32 135	32 732	33 335	33 945	34 558	35 177

Table 2: Labour force characteristics by age 2008 - 2014 (StatisticsSouthAfrica,2014)) indicating an increase in unemployment and a decrease in the number of employed youth

	2008	2009	2010	2011	2012	2013	2014
	Youth 15-34 years (Thousand)						
Population 15-34 yrs	18 209	18 404	18 608	18 824	19 053	19 283	19 504
Labour force	9 596	9 489	9 005	8 923	9 146	9 171	9 390
Employed	6 460	6 296	5 789	5 704	5 874	5 850	6 000
Unemployed	3 136	3 194	3 215	3 220	3 273	3 321	3 390
Not economically active	8 612	8 915	9 603	9 901	9 907	10 112	10 114
Rates (%)							
Unemployment rate	32,7	33,7	35,7	36,1	35,8	36,2	36,1
Employed/population ratio (Absorption)	35,5	34,2	31,1	30,3	30,8	30,3	30,8
Labour force participation rate	52,7	51,6	48,4	47,4	48,0	47,6	48,1
	Adults 35-64 years (Thousand)						
Population 35-64 yrs	13 336	13 731	14 125	14 511	14 892	15 275	15 672
Labour force	9 212	9 493	9 405	9 577	9 907	10 249	10 732
Employed	7 977	8 320	8 008	8 200	8 410	8 708	9 054
Unemployed	1 235	1 173	1 397	1 378	1 496	1 541	1 677
Not economically active	4 124	4 238	4 720	4 933	4 985	5 026	4 941
Rates (%)							
Unemployment rate	13,4	12,4	14,9	14,4	15,1	15,0	15,6
Employed/population ratio (Absorption)	59,8	60,6	56,7	56,5	56,5	57,0	57,8
Labour force participation rate	69,1	69,1	66,6	66,0	66,5	67,1	68,5

Table 1 and 2 indicate a deteriorating situation for youth with regards to employment and economic participation. The United Nations Population Fund (UNFPA) advises governments in developing countries to invest in their youth to limit potential challenges such as unemployment, drug and alcohol abuse; and political turmoil (UNFPA, 2014). Unless solutions are found to address their issues, the situation with rural youth could continue to deteriorate resulting in social ills and other challenges for the country. According to the 2010 Global Entrepreneurship Monitor labour (GEM) report only 1 out of every 9 entrepreneurs in South Africa were youth, 2% of which were from rural areas due to insufficient development of infrastructure; a smaller market for goods and services; and lower levels of skills (Gems, 2010). South Africa's economic development has been limited according to the DTI (2013) by poor economic participation of the youth. The notion that opportunities can be created for the youth by addressing poor infrastructure and services could unlock the economic potential in rural areas is an idea that will be investigated in this research study.

The focus of this research study is a rural town in the province of Kwa Zulu Natal, South Africa. The rural town of Ndwedwe was identified due to its accessibility for this research study and current socio economic circumstances. The Ndwedwe Local Municipality which forms part of Ilembe District Municipality on the north coast of KwaZulu-Natal is rural, lacking in development, and has no source of revenue depending 100% on grant funding

from the South African Government in order to bring service delivery to its 19 wards (Ilembe, 2012). Statistics from the 2011 population census indicated Ndwedwe's population at 140 820 with a growth rate of -0.27% (Statistics South Africa, 2011). 66% of the population are youth aged between 18– 35 years of which more than half are women; 39.3% have no schooling; 66.3% are unemployed; and the dependency ratio is 56% (Ilembe, 2012). This has resulted in a huge challenge in providing infrastructure that relates to developing skills, creating employment opportunities, improving education and providing sports & recreation facilities. Recent statistics received from the Kwazulu-Natal Department of Education (DOE) indicate that there are 150 schools with 43083 pupils from Grade R to 12 in the 2015 intake (DOE, 2015). The only sports facilities in Ndwedwe are the sports ground, tennis courts and change rooms in the Ndwedwe town centre.

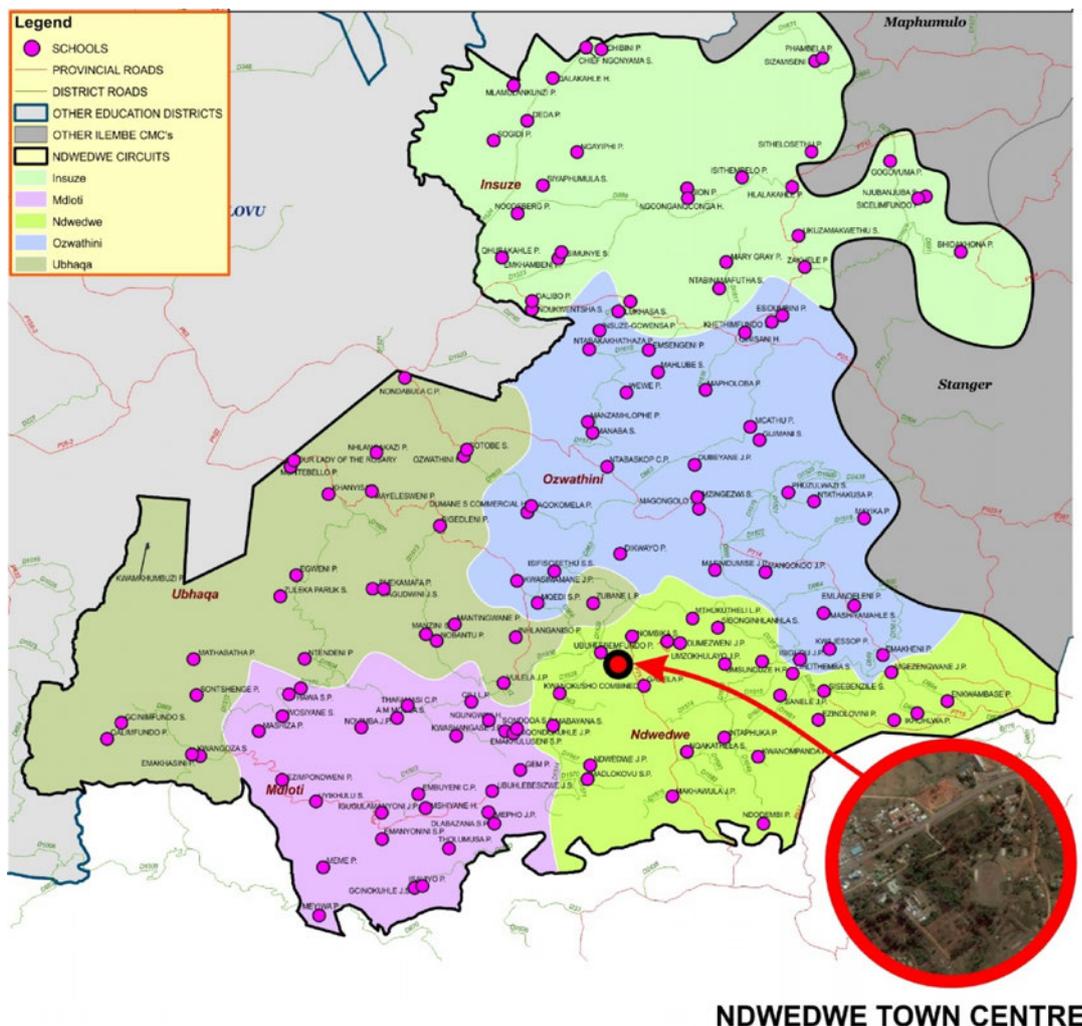


Figure 2: Map of Ndwedwe indicating Schools courtesy of Department of Education (2015) illustrated by author

1.1.2 Motivation / Justification of the Study

The problem that this research study aims to address is a national issue. The South African Government has in the last 21 years of democracy allocated millions of rand's to fund youth empowerment initiatives however these have been unsuccessful as the challenges of the youth continue to increase (Parliament, 2014). The NYP 2009 - 2014 states that interventions are needed to specifically address the youth situation in rural areas with regards to access to services, the creation of economic opportunities, and creating mechanisms to attract and retain them to be of service to their community by investing in infrastructure (the presidency, 2009).

The Department of Rural Development and Land Affairs (DRDLR) Republic of South Africa has indicated that 12 million people, nearly a quarter of South Africa's population, continue to live in or close to poverty in rural areas (DRDLR, 2013). The Department of Trade and Industry Republic of South Africa (DTI) believes that youth participating actively in the economy could allow them to become catalysts for poverty reduction, good governance and economic transformation of rural areas leading to a more equitable society. This can be achieved by nurturing a strong culture of entrepreneurship amongst the youth and facilitating enterprises owned by the youth in all economy sectors (DTI, 2013).

The positive impact of sports on youth development have been discussed by many thinkers in the field (Holt, 2011) (Perkins & Noam, 2007) (Koss, 2011). Organisations such as the United Nations (UN) and International Olympic Committee (IOC) have been using Sport as the main element in their development strategies.

Positive outcomes amongst the youth are not automatically achieved through Sports participation and can differ broadly based on the context of the region, culture and situation that it occurs (Coakley, 2010) (Holt, 2011) (Coakley, 2011). The United Nations (2015) recommends an intervention that is professional, socially responsible and designed specifically to suit the cultural and social context where it is required. Formulating an appropriate solution to address the needs of youth in a rural context in South Africa is the

gap in knowledge which this research aims to contribute to. The outcomes of this research will be guidelines for an architectural solution to address this phenomena in rural areas.

The knowledge gained from this research will provide a myriad of critical and salient information for the sporting and educational fraternity; community organisations (e.g. churches, charities); city managers/planners and state institutions which includes:

- Understanding and providing solutions to the current challenges faced by Youth in rural South African towns in Kwa Zulu Natal.
- As source information informing the design of developments and sporting program that deal with Youth Sport and Education in Rural areas. .
- Providing an alternative solution to empower the Youth and involve them in the mainstream economy.

1.2 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.2.1 Key Problem

The youth in rural towns in South Africa face challenges to their personal and social development due to poverty; a lack of infrastructure development; and economic opportunities.

1.2.2 Key Aim

To investigate how Sports and Architecture can be used to alleviate the challenges of youth in rural areas; enhance their personal and social development; stimulate economic activity; and influence infrastructure development in rural towns.

1.2.3 Key Objectives

- To identify the challenges that inhibit the personal and social development of youth in rural towns in Kwa Zulu Natal, South Africa.
- To identify how Sport and Architecture could be used for youth development.
- To identify Design principles that can be applied to the proposed typology.
- To identify the Social impact of Sports and Architecture.
- To identify the Economic impact of Sports and Architecture.
- To identify the Physical impact of Sports and Architecture.

1.3 SETTING OUT THE SCOPE

1.3.1 Delimitation of Research

- The Youth in South Africa according to the National Youth Policy is defined as any persons between the ages of 14 and 35 years of age. This is a very broad definition of the Youth (SARPN, 2008). This research will be confined to formulating a solution aimed at school going youth between 10 and 25 years. Support will be provided from school through to tertiary education and enterprise creation. The spin offs of the facility is that the community will also benefit from the initiative which will then address the youth from 26 – 35 years.
- The main scope of this project involves the design of a Sports Center for the physical development of youth in various sporting fields. The functional requirements of a sports center will need to be fulfilled to ensure that the facility to operate successfully. Creating a stimulating environment to develop and motivate the youth will result in additional functional elements being added. These functions will be identified in the research study.
- The solution in this research will be a climatic, ecological and contextually appropriate solution for rural towns in the province of Kwa Zulu Natal, South Africa.

1.3.2 Definition of Terms

Sports Centre: Is defined by the Cambridge Online Dictionary (2015) as “a building where you can play different sports”. The typology of a typical Sports Centre will be adapted to achieve the aims of this research.

Rural Towns: Defined as sparsely populated areas in which people farm or depend on natural resources. Poor rural areas have no local economic base with inhabitants usually sustained by pensions and/or remittances from migrant workers (Polity, 1997). Within these rural areas are towns where the inhabitants can obtain basic goods and services.

Personal Development: Personal development includes activities that improve awareness and identity, develop talents and potential, build human capital and facilitate employability, enhance quality of life and contribute to the realization of dreams and aspirations. When personal development takes place in the context of institutions, it refers to the methods,

programs, tools, techniques, and assessment systems that support human development at the individual level in organizations. (Aubrey, 2010).

Infrastructure: The basic physical systems of a country's or community's population, including roads, bridges, tunnels, water supply, sewers, electrical grids, telecommunications, and so forth. These systems are considered essential for enabling productivity in the economy (Fulmer, 2009). These essential systems are missing in rural areas limiting productivity in rural areas.

Lack of Services: Services in the context of this research refer to basic municipal services such as water, sanitation and electricity, as well as a lack of good quality social services (education, health and ambulances) and transport services (roads and buses).

Youth Development: In the context of this thesis refers to the development of the potential inherent in children and youth to overcome the challenges in their social and physical environment. The aims are to develop the competencies of the youth in order that they; become economically active by developing skills that make them employable or by creating their own opportunities ; to nurture themselves and others; to engage in civic activities; and to participate in social relations and cultural activities.

Catalyst: Youth in rural areas are inhibited them from achieving their full potential. Sport and Architecture will be introduced to drastically improve their development.

Sport: The oxford dictionary definition of sport is: "Sports is an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment (OXFORD, 2015). Research will determine the appropriate physical activities to include in the Sports Centre.

Theory of Intersectionality (or intersectionalism) is the study of intersections between forms or systems of oppression, domination or discrimination. An example is a person who is black and disabled. One cannot view each from of identity and oppression independently and must include the interactions, which frequently reinforce each other. (Crenshaw, 2004)

SAAYC: The Southern Africa Association of Youth Clubs (SAAYC) was formed in 1937 and has evolved through a number of transformations and change of government policies, from apartheid to the currently democratic government. The association is aimed at empowering all young people to gain their independence, realize their self-worth, develop a positive image about themselves and restore their dignity.

Socialization: refers to the exchange of information between adults and youth in the context of developmental activities.

Sports Tourism: Sport tourism refers to the experience of travel to engage in or view sport-related activities. It is generally recognized that there are three types of sport tourism: Sport Event Tourism, Active Sport Tourism, and Nostalgia Sport Tourism. (Ross , 2001)

Apartheid: A former social system in South Africa in which black people and people from other racial groups did not have the same political and economic rights as white people and were forced to live separately from white people. (merriam-webster, 2015)

Athletic identity: The way that a person perceives and feels about their sporting role, which comprises their goals, values, thoughts and sensations related to their sport (Brewer, et al., 1993).

1.3.3 Key Question

How can Sports be used as a catalyst to develop the Youth in poor rural towns in South Africa?

1.3.4 Secondary Questions

- What are the current challenges that Youth experience in rural areas?
- What are the current strategies of Youth Development?
- How can Sport facilitate Youth Development?
- What is the relationship between Sport and Social Development in Rural Areas?
- What is the relationship between Sport and Economic Development in Rural Areas?
- What is the relationship between Sports and the Built Environment?

1.4 THESIS STRUCTURE

Chapter 1: Background Research

A presentation of the background statement, motivation of the study, definition of the problem, aim and objectives is made. The scope of the study is set by the delimitation of the research problem; definition of terms; assumptions stated; Aims; Objectives and key question.

Chapter 2: Research Methods

This chapter is an explanation of the method and process of research explained along with the research materials employed within the study.

Chapter 3: Concepts & Theories

Key theories and concepts will be discussed and critically analysed for relevance to this study.

Chapter 4: Literature Review

This chapter is a review of existing literature regarding Sport and youth development to identify the gap in information that requires further research.

Chapter 5: President Studies

Existing architectural solutions that have been identified by the literature review are analysed with reference to the aims, concepts and theories of this research.

Chapter 6: Case Studies

Existing architectural solutions in South Africa that have been identified by the literature review will be observed in more detail with reference to the aims, concepts and theories of this research.

Chapter 7: Data Analysis

This chapter analyses and summarises the key findings that have resulted from focus group discussions and interviews with key informants.

Chapter 8: Conclusions & Recommendations

This chapter summarises the findings of this research document, it outlines the conclusions, and compares it to the aims stated at the onset of this research project. The conclusions made are presented with recommendations.

CHAPTER 2: RESEARCH METHODS

The objective of this chapter is to define the methodology of this research study; describe the sample selection; explain the procedure used in designing the instrument and collecting the data; and provide an explanation of the statistical procedures used to analyse the data.

2.1 Research methods

This section describes the methods that were adopted within this research study in order to determine the role of Sport and Architecture in developing youth in rural towns in South Africa.

The challenges that youth experience in rural areas have been identified by sufficient quantitative data which are available as statistics and surveys (the presidency, 2009). In view of this data there has been no successful intervention (Parliament, 2014).

A Qualitative research method was used to explore new ideas and to gain further insight into the phenomena. The aim of this research was to develop design guidelines for a Sports Centre that can deal with the specific challenges of rural youth and enhance their development by addressing their needs. Qualitative research is useful in understanding a research problem from the community's point of view (North Eastern University, 2012) and can result in a broad cultural understanding of the phenomena (Peltokoski, 2008)

Qualitative data was collected in the following manner. The research was separated into primary and secondary sources.

Secondary sources were investigated first as a literature review to identify existing information and research undertaken on the subject. Concepts and theories in Empowerment, Place theory, Place making and Ecological Systems Theory were analysed to develop a theoretical approach to integrate sport with architecture to enhance youth development. A research framework was developed on key objectives to identify design guidelines for a Sports Centre that can enhance rural youth development and have a Social, Physical and Economic Impact on rural communities.

The information was sourced from published books; articles in journals; and works by recognised scholars.

Precedent studies of two existing Sports facilities that provide Youth Development opportunities to poor disadvantaged youth were analysed.

- Precedent 1 was the Olympic Youth Development Centre in Lusaka, Zambia which aims to provide opportunities to youth, women, athletes and sports coaches in developing countries to enjoy positive life styles and participate in sports.
- Precedent 2 was the Nike Football Academy in Soweto, Gauteng, South Africa which aims to develop local youth in soccer, provide education and awareness on health and HIV; as well as leadership.

Primary sources of information were obtained from Case Studies; Interviews with key informants; and focus group discussions. A purposive random sampling method was used to identify interviewees for focus groups and in organizations to increase credibility using a small sample group (North Eastern University, 2012). The following research instruments were used: Questionnaire(s), Camera, Sketch book, and Electronic facilities (Internet, cell phone, email).

Case Studies of two local facilities that involve Youth Development with Sport were analysed:

- Case Study 1 was the Indigo Skate Camp situated in the Valley of a 1000 hills, Kwazulu Natal, South Africa and was identified because it is set in an underdeveloped rural community like Ndwedwe. Skateboarding is incorporated with other educational programs for personal and social development of youth. Tourism provides economic benefits for the facility and local community.
- Case Study 2 was the Lungisa Indlela Village (LIV) in Cottonlands, Kwa Zulu Natal, South Africa and was identified because it applies Youth Development holistically and has integrated Sport into its program. The youth at the facility are orphaned and vulnerable children from disadvantaged communities mainly rural. The facility has been established in a rural context and interacts with the local community.

Key informants were chosen to provide contextually specific data on criteria developed from the literature review to identify new ideas on:

- How Sport and Architecture could be integrated to best enhance youth development.
- How a Sports Centre can bring about social cohesion amongst rural youth and the community.
- How a Sports Centre could be utilised to develop the rural economy.
- How a Sports Centre could have a physical impact on rural infrastructure.

Semi structured interviews with open ended questions were used for discussion as they provide a guide allowing informants the freedom to express views in their own terms yet still provide data that is reliable and comparable; as well as allowing for questions to be adjusted as data is collected (North Eastern University, 2012).

Follow up interviews were conducted for clarity on the information provided.

- Purposive random sample interviews of Teachers from different grades at the Nombika S Secondary School were conducted to obtain a broad consensus of youth challenges in a schooling environment as well possible solutions. This school was chosen as it is regarded as one the better performing schools in Ndwedwe and has a sports field that is used for sports tournaments (Sikhosana, 2015).
- Purposive random sample interviews of staff, youth and volunteers at Indigo Skate Camp were conducted to identify the roles and responsibilities they partake in with regards to youth development; challenges that they have experienced; new ideas and suggestions for improving the effectiveness of the facility; and positive feedback from youth who have been developed by partaking in the facility.
- Mr Derek Van Heerden from East Coast Architects who's firm has completed a number of successful projects in rural communities in South Africa such as the Vele Secondary School in Limpopo which won the AfriSam/SAIA Award for Sustainable Architecture in 2012 (VISI, 2012). Their firm practices SOCIAL architecture engaging and empowering the local community (East Coast Architects, 2015).
- The manager for Tourism and Local Economic Development at the Ndwedwe Municipality Mr P. Mhlongo was interviewed to identify new ideas on how to enable the youth to become economically active; potential services to consider in the facility to

stimulate the local economy; and information on the local history and culture. The information obtained from this informant was used to inform the design, site location and urban design response.

- The Youth development manager at Ndwedwe Municipality Mr Sipho Gwanandu was interviewed to identify current youth challenges; current strategies of youth development by the municipality and potential avenues for new development platforms.
- Mr E.Kazee from E Kazee Architects who has done public buildings for the government in rural areas was interviewed to identify ideas on how to involve the local communities and empower them in the project.
- The Sports and Recreation manager at Ndwedwe Municipality Mr K.B Gumede was interviewed to identify how Sports is used for Youth Development; new ideas on how sports and youth development could be used effectively and the current sports and recreation needs for the area.
- The Development and planning manager at Ndwedwe Municipality Mr Sizwe Mazibuko was interviewed to discuss the ideas on site selection; the appropriate urban design response; the developmental needs of the municipality and community; and practical implementation of the architectural solution.
- The Town Planner at Ndwedwe Municipality Mrs Vuyo Nguza was interviewed to identify possible land uses and activities required in Ndwedwe and that could be utilised for urban development initiatives.
- The Municipal Manager of the Ndwedwe Municipality Mrs T Cibane was interviewed to identify the long term visions of the Municipality with regards to youth development, and economic and infrastructural needs of the Municipality for future development.
- The manager for the Kwa Zulu Natal department Sports and Recreation Mr Vijay Balram was interviewed as his department is responsible for the implementation of Sports and Recreation facilities in the province. This was to gain an understanding of funding, management and maintenance of the proposed intervention from the client's perspective.
- The Youth Development Manager at the local Department of Social Development was interviewed to identify current and specific youth challenges in Ndwedwe; current youth development initiatives by the department; the potential of including social services

with the Sports Centre and potential solutions that could be incorporated into the Sports Centre.

- A Community Development officer from the Department of Co-operative Governance and Traditional Affairs, Republic of South Africa (Cogta) was interviewed to identify current Youth issues in Ndwedwe; current interventions strategies by the department; and potential solutions that could be incorporated into the Sports Centre.
- Purposive random sample interviews of four staff at Lungisa Indlela Village (LIV) were conducted which included Sports Coaches, Social Workers and program leaders to identify challenges and new ideas on how the youth are developed in different contexts within the facility.
- A purposive random sample was used to conduct a focus group discussion of youth with a 50% male to female ratio at LIV to identify how the youth respond to Sports participation; perception of the benefits; and new ideas on how to make Sports facilities more appealing to the youth.

Qualitative data was analysed using a method of Content Analysis. Qualitative data is exploratory. A process of data coding was created specifically for this research study. The intended outcomes were to fit the research material that has been collected into a model of communication and obtain a qualitative text interpretation.

2.2 Conclusion

This section will be a critical analysis of the research.

Has the research problem/ question been solved?

The key problem in this research study has been solved by the formulation of guidelines for an architectural solution. Though examples of Sports facilities with Youth Development agendas exist, their spatial provisions were not best suited to achieve the aims of this research study. Data from key informants and observation of Precedent and Case Studies has generated new ideas that has resulted in the formulation of a new concept.

What has been learned from the results?

- Sports events and activities serve as an attraction bringing people together resulting in a hub of activity around the sports space. To capitalise on this activity the Sports Centre should be designed with a well-designed permeable public space envelope with a variety of uses and activities that can be used day and night linked with pedestrian friendly routes to key locations in the context. This hub of activity that has been created can now be used to stimulate the development of complimentary facilities in entertainment, dining, retail and commercial spaces.
- The architectural response should be a more permeable structure where activities are visible and inviting. As Sport and learning work well together a closer spatial relationship is recommended in the design.
- The Social worker unit is of critical importance to Youth Development having the expertise to analyse and assess the youth holistically interacting with parents, teachers, peers and sport coaches to develop tailored solutions.
- Activities in the Sports Centre are required to involve Parents, teachers, and peers in order for Positive Youth Development to take effect. This will ensure that the development framework is consistent at the sports centre, home, school, and community environments.
- Sport Centres for the youth mostly get utilised after school, on weekends or public holidays. Considering the capital investment, a wider range of services are required to ensure use throughout the day as well bring in revenue.

How can this knowledge be used?

To guide the planning and development of Sports and Recreational facilities in rural towns in KwaZulu-Natal. The proposed solution incorporates services from a multitude of government and municipal departments which could make financing the project much easier.

What are the shortcomings of this research or methodology used?

This research study has been focused to provide a solution to Ndwedwe, a rural town in Kwazulu-Natal. In addition to Tourism and Heritage assets, the area has 150 schools and 43083 pupils in 2015 from grade R to grade 12 (DOE, 2015). It is recommended that the data be contextualised by interviewing key informants in that area with regards to youth

challenges; potential avenues for revenue, job creation, economic stimulus and infrastructural needs. This may result in adjustment of the spatial needs to suit its context.

CHAPTER 3: CONCEPTS & THEORIES

Concepts and theories will be discussed in the chapter and analysed for their applicability and the potential outcomes of their usage to develop a theoretical framework to apply to the architectural solution.

3.1 Empowerment

This section will investigate how the built environment can be adapted to empower the youth to overcome their development challenges.

The notion of empowerment can be traced back to the 1960's and 1970's in varied domains such as feminism, Freudian psychology, Black Empowerment, and Gandhism (Calvès, 2009). The systematic development of empowerment as a concept was influenced by 3 notable writers. Barbara Solomon (Sadan 2004 cited Solomon 1976) affirmed empowerment as an approach to social work with Afro-Americans who were oppressed. Empowerment was proposed by Peter Berger and Richard Neuhaus (Sadan 2004 cited Neuhaus 1977) as a way of improving welfare services by mediating social institutions. Empowerment was developed theoretically by Julian Rappaport presenting it as a world view including social policies and approaches to social problems resulting from powerlessness (Sadan, 2004). These writers discussed the failures in social programs which resulted in powerlessness amongst the group they were intended for due to an insensitive approach of providing the perceived missing resources. A contextual ecological approach was encouraged.

Robbins et al (1998) describes Empowerment as a procedure during which individuals and groups achieve control, exposure to resources, and power over their lives to accomplish their goals and aspirations. Elishiva Sadan (2004) describes Empowerment as a process in which a shift takes place from a powerless state to a state where individuals or groups have more control over their lives, environment and destiny.

In youth Empowerment they develop their abilities; the power and authority to make the right decisions; and generate improvements to their own lives as well as adults (Vavrus and Fletcher 2006).

The process of Empowerment is defined by 3 inter-related processes being (i) the individual, (ii) the organization, (iii) and the community. These processes have independent properties however are dependent on each other as a change in one level results in a change in the other (Israel, et al., 1994)(Sadan 2004).

(i) Individual empowerment will be aimed at empowering rural youth to overcome the challenges that inhibit their personal development (Vavrus and Fletcher 2006). The group environment expands empowerment from the limited boundaries of "I" in the individual to "we" and is perfect for mutual help, raising awareness and the experience of inter personal influence (Sadan, 2004). Sport is a good example of a group activity. Youth with similar challenges could be grouped in sport and development programs. Sports participation has many benefits for developing character as well as important life skills and is therefore an important tool in empowering the individual (Coakley & Donnelly , 2007).

(ii) Organizational empowerment includes both mechanisms that facilitate individual's to expand their authority within the organization and as well as its ability to impact decisions and policies in the greater community. The concept that organizations could be viewed dually as empowering and empowered facilitates in establishing the link between the community and the individual (B.A Israel et al, 1994). The Sports Centre is the organization aimed at developing the youth illustrating the crucial role that it plays in empowering both the youth and the community in rural towns.

(iii) Community empowerment according to Sadan (2004) is the increase in control of people collectively over issues of importance to them. In an empowered community increased support is provided by organizations and individuals for each other by collectively applying their resources and skills to meet their corresponding needs. The empowerment of the individual at organizational levels is therefore linked to empowerment at community level. (Israel, et al., 1994). The community in this context are the elders, parents and families that reside in Ndwedwe. Ancillary development programs need to be developed to engage the community, organization and youth in active participation.

A multilevel concept that engages all 3 processes of empowerment will have the most impact on the Youth (Israel, et al., 1994) (Sadan, 2004). The built environment has to potential to integrate the functional and programmatic aspects of this concept with the environmental, cultural and historical context.

Community participation is a bottom up approach to development in which architecture could be used to empower the youth and community. Building becomes a material expression of a joint community effort. Attention shifts from building as a product to building as a process (Marschall, 1998). During apartheid African communities were provided with facilities according to the “technocratic caretaker model” (Harms, 1972). This was a top down approach of planning, implementation, construction and post contract management used by local authorities based on a presumed brief with outsourced skilled labour and technology. The facilities were often vandalized being an embodiment of Apartheid and not catering for community needs. This is an example of an insensitive approach of providing the missing resources (Sadan 2004 cited Solomon 1976, Neuhaus 1977 and Rappaport 1981). John Friedmann (1992) made reference to an emerging practice of alternative development which prioritises local contexts, people, and forms of power change. By encouraging people to become actively involved in their own history they contribute to their own development. This idea is an example of a contextual ecological approach (Sadan 2004 cited Solomon 1976, Neuhaus 1977) and Rappaport 1981). Marschall (1998) defines community participation in the built environment as:

- The active involvement of a community in the needs assessment, establishment of the brief, fundraising, design, maintenance and management of the completed structure.
- The concept of transformation of people’s consciousness which leads to a process of individual development and empowerment.

Sport and Architecture can therefore be used for Empowerment. Ideas on how to implement the key points discussed in this section will be identified during the assessment of relevant Precedent and Case Studies.

3.2 Place Theory

This section will investigate the potential contextual relationship between site, community and a space for Sports.

Sport according to Eichberg (1998) can be described as a placeless entity. He theorised that the function of Sport spaces was to further the production of results. To fulfil this purpose space must be standardised according to universal norms determined by international sporting bodies. Sport can become independent of concrete places resulting in placelessness. The features of placeless sporting environments are described by Bale (1994) as globally styled and mass made where different locations appear identical as a result of record keeping, universal standards, and quantification in sport making it a requirement for the spatial framework of the built environment to be as similar as possible irrespective of local or global locale. Pallasmaa (2011) voiced similar concerns criticising the materialist rationalist culture of changing structures into mere tools lacking in substance, for the function of utility and economy.

The consequence of modernity according to Giddens (1991) is that Sports fans may have a closer affinity with distant places and events than their own local teams due to the severing of face to face interactions. An example of this are local Manchester United and Liverpool supporters in South Africa. Raitz (1995) compares Sports to a theatre during which the play provides a variety of experiences and creates social networks within it and beyond it for participants and spectators. Sports participation provides excellent opportunities for Place by creating shared experiences amongst the youth and the community. According to Hinch & Higham (2011) Sports plays an important role in place identity in the self-making of individuals and groups by articulating the notion of "where we are or where we play, we contribute to an understanding of who we are"

In Architecture, Space and Place are amongst the most discussed concepts. Space and Place were geographical terms used by geographers up until the 1960's.

Space according to Holt-Jensen (1999) was conceived as a blank canvas, a neutral vessel filled with human activities that were catalogued into places conceived as bounded settings within which identity and social identity were formulated.

During the 1960's the idea of the term "Place" began to evolve in the realm of urban design. Kevin Lynch linked the physical attributes of place to cognition which is the identification of self with the place implying that the local features of the physical and natural environment characterize a person's identity (Khirfan, 2014). Lynch (1960) explained that designers needed to explore in detail the local history; feelings and needs of the community; indigenous materials; local traditions in craftsmanship; as well as the economic and political status quo of the community in the realm of urban planning.

In the 1970's a rise in the movement of "humanistic geography" was an important development within cultural geography which drew heavily on the work of phenomenologists Edmund Husserl (1859 – 1938) and Martin Heidegger (1889 – 1976) giving special emphasis on the concept of "place" as central and determining notion in geographical enquiry.

Writers such as Yu Fi Tuan, Edward Relph, Anne Buttimer and David Seamon were key thinkers that developed the concept of Place (Karalis, 2009). Humanistic Geographers challenged the idea that people lived in a framework of geometric relationships to a more phenomenological humanistic concept of place as a lived experience which is a sense of identity, a sense of attachment and belonging. Less emphasis was placed on the physical elements and more on the relationship between people and the environment (Khirfan, 2014). Tuan's (1977) idea of place was that of an area bordered by emotion to which groups and individuals have strong passionate relations with in some instances acquiring the identity from it.

Relph (1976) described Place as having a unique quality to focus and order human experiences and intents spatially. This description has similarities to Architecture which can create form out of function focusing human intentions and actions. From the 1970's to the 1990's 'Place Theory' gained popularity amongst architects being strongly influenced by Heideggerian phenomenology, Frampton's Critical Regionalism (Dovey 2014 cited

Frampton 1983) and Schultz Genius Loci (Dovey 2014 cited Schultz 1980,85). Schulz (1980) observed from an architectural perspective that a place is a space which has a specific quality that expresses the properties of the place, gathered and brought close to man creating a distinct identity of place (Schulz , 1980). Zumthor describes this distinct character as the atmosphere that is created by a building (Architectural Review , 2012). In order to establish place the Architecture of the Sports Centre must be permeable at street level engaging with the urban fabric and designed with human scale in mind (PPS, 2012).

To illustrate the principles of Place and Place making, the Moses Mahbida Stadium and surrounding precinct in Durban, South Africa was analysed.



Figure 3: Moses Mahbida Stadium, Durban, South Africa image courtesy of the Kilpatrick (2012) – Imbizo Place



Figure 4: Moses Mahbida Stadium, Durban, South Africa image courtesy of mmstadium (2015) – Children's Play area



Figure 5: Moses Mahbida Stadium, Durban, South Africa image courtesy of mmstadium (2015) – Imbizo Park



Figure 6: Moses Mahbida Stadium, Durban, South Africa image courtesy of mmstadium (2015)- Peoples Park area

Figure 3- The facade of the stadium steps down to a lower level to accommodate a variety of commercial activities from restaurants, sports shops and a gymnasium where people can linger on after the game. Canopies provide shade and human scale. The edge is permeable and activities are visible

The Four key qualities of successful place making are:

- Access and Linkages: Pedestrian focused permeable access and connections from surrounding transport and nearby attractions.
- Comfort and Image: Creating an attractive and appealing space that is safe, clean and comfortable with its own character using local building materials, traditional building techniques, and including the history and heritage of the area into the design of the space.
- Sociability: Promoting co-operation and neighbourliness by designing a space that is welcoming and non-exclusionary that connects people with other people creating an attachment to the community.
- Uses and Activities: The basic building blocks of a place are a variety of activities from day to night that engage both sexes and people from all ages giving people a reason to come to a place and return (PPS, 2015) (placemakingchicago, 2008).

According to Fred Kent (2012) of PPS, Public Parks and squares developed around important public facilities can develop social connections, human enjoyment, the local economy, and pride in the city by acting as multi-use destinations hosting a broad range of activities and functions that attend to community needs. Balram (2015) explains that vandalism is a challenge in rural areas. Additional services to the Sports Centre that can bring in revenue as well as activity providing passive surveillance are required for rural facilities.



Figure 8: Diagram describing convergence of movements around place courtesy of PPS (2014).

Public markets are one idea which has been at the heart of cities since the beginning of human history and can provide opportunities for economically challenged individuals to support their families with minimal start-up capital. Market places are important

commercial and social hubs which can contribute towards developing the local and informal economy.

The Moses Mabhida Stadium precinct in Durban, South Africa was analysed and found to contain the elements of *Place making* making it a successful public space.

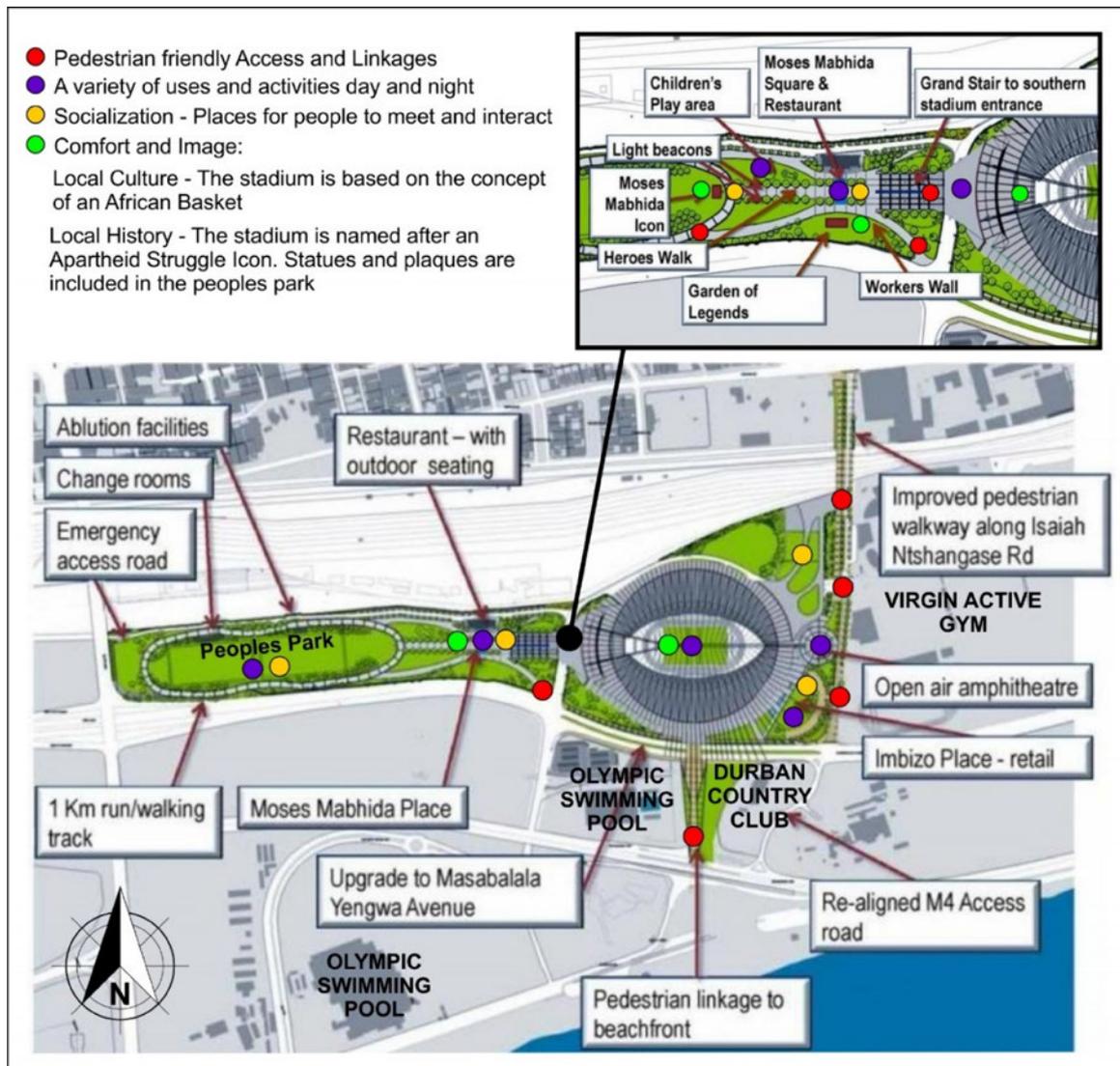


Figure 9: Moses Mabhida Stadium Durban, South Africa. Image courtesy of Skyscraper City (2009) illustrated by author.

Sport is a powerful tool to create Place. The built environment needs to be approached in a manner that relates to the local context, history, environment and culture cognitively as well as experientially. By applying the principles Place making, the precinct surrounding the Sports Centre has the potential to become a vibrant public space complimenting the functions of the facility, improving social cohesion and providing economic opportunities to the local community.

3.3 Ecological Systems Theory

This section will investigate ideas on how the built environment should respond to support the development processes that affect the youth.

Ecological Systems Theory originated in the 1940's in Urie Bronfenbrenner's work on childhood and friendship patterns and was developed over several decades (Skinner 2012 cited Bronfenbrenner 1995). In 1979 Bronfenbrenner [1917-2005] published this theory in his writings acutely changing the comprehension of what needs children required in order to advance into prosperous adults by bringing focus to the variety of environmental and societal influences on a child's development. (Lang, 2005) (Skinner, 2012)

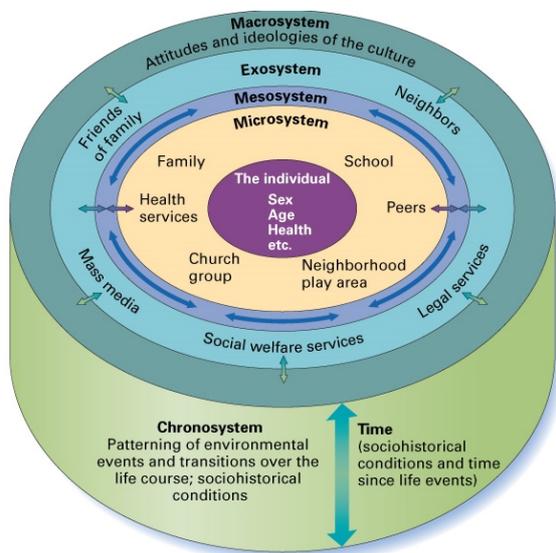


Figure 10: Diagram indicating the 5 ecological systems in Ecological Systems Theory. Image courtesy of Yingst (2011).

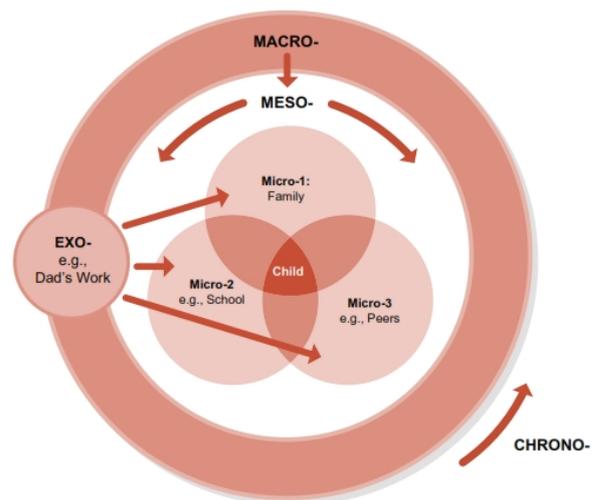


Figure 11: Diagram indicating relationship between systems. Image courtesy of Donald, Lazarus & Lolwana (2002).

The whole ecological system that supports development needs to be considered to comprehend human advancement argued Bronfenbrenner [1917-2005 (1994)].

He theorised that children do not develop in isolation but within a relationship system of school, community, family, society that form part of 5 environmental systems:

Microsystems, Mesosystems, Exosystems, Macrosystems and Chronosystems.

Bronfenbrenner's theory is supported on many various levels by other thinkers. Elder (1998) examined chronosystem and macrosystem impacts on individual development in his research on major upheavals in countries such as war and economic turmoil (Skinner 2012

cited Elder 1998). Maslow (2000) in his research noted that individuals can only achieve self-actualisation once their needs are met which can be understood and determined through Ecological Systems Theory (Skinner 2012 cited Maslow 2000).

According to Santos et al (2011) the application of Ecological Systems Theory in sport studies has become more accepted by scholars and widely used in Sports and Youth Development Programs (Santos et al 2011 cited Bengoechea & Jonhson 2001, Strachan 2008, Arajuo 2009). The ecological systems model is appropriate to examine the youth's involvement in sport as a developmental process (Santos et al 2011 cited Bengoechea & Jonhson 2001). Positive Youth Development (PYD) was obtained in part from ecological systems theory and takes into consideration the contextual relationship of the individual with the multi-layered ecological web of family, school and community in which the youth is influenced by (DSG 2013 cited Lerner et al. 2013). Ecological systems theory has therefore been successfully used in Sport and Youth development programs. The Sports Centre could potentially incorporate functions and activities to support the various systems having a positive influence on the youth.

The system in which the child lives and is actively engaged in is the *Microsystem* which is comprised of school, family, peers and other proximal influences such as sports teams, religious organisations, neighbourhood and workplaces (Bronfenbrenner [1917-2005], 1994). The Sports Centre could establish itself as a microsystem to make up for the shortfall in stimulation and mentoring provided at home or the school environment.

Mesosystems consist of linkages and interrelationships that exist between two or more of the individual's microsystems in a variety of settings that the child is immersed in.

The *Mesosystem* is made up of links and relationships between two or more individual's microsystems in a mixture of environments that the child is occupied in. Positive development results when there is good communication between microsystems and negative development when it is poor (Bronfenbrenner [1917-2005], 1994). The Sports Centre could provide functions that act as the Mesosystem providing activities for parents (Home), teachers (School) and sports participants (Play) to interact linking Microsystems. Pittman, Diversi, & Ferber (2002) recommend that practitioners of youth development

programs can greatly improve the influence of their programs if they work in collaboration with other key youth contexts such as schools and families. (Duerden, Witt 2010 cited Pittman, Diversi, & Ferber 2002)

The *Exosystem* is made up of processes and links that occur amongst two or more settings. The developing child is not present in one or more settings however situations can occur indirectly affecting their microsystem Bronfenbrenner [1917-2005] (1999). The three exosystems that are most prone to indirectly influence youth development through their impact on the school, peer and family groups are: the social networks of the family; the context of the neighbourhood community; and the parent's workplace. An example is a parent's job situation may not directly influence the child but affect the quality of their relationship. Communities that have high social cohesion could provide mutual parental support offsetting this negative effect (Dawes & Donald, 2005).

The *Macrosystem* involves the ideologies, attitudes, patterns of behaviour, including other products of the world surrounding the child (Bronfenbrenner [1917-2005], 1994). Scripts for child care are usually based on cultural values and ideas on childhood which in a rural context will be inadequate to support youth development due to poverty, exclusion and a lack of information and resources. The Sports Centre through the concepts of place and place making has the potential to improve the culture and subculture that the youth are immersed by including Uses and Activities that create positive ideologies, behaviours and attitudes. Sport for example could create a culture of health and fitness amongst the youth and community deterring them away from bad nutritional and physical activities.

The *chronosystem* applies to the enclosure of historical time surrounding other systems in that development is influenced by the historical features of the period. Development of the youth is dependent on how they respond to events in systems and are guided through these challenges over. Support and development of these systems are regarded as processes of development as they influence the child. (Dawes & Donald, 2005). The Sports Centre could therefore provide support to other systems to ensure they develop in conjunction with the developing child.

The next section will be a summary of this chapter leading to design principles.

3.4 Conclusion

Analysis of the concepts and theories in this chapter has identified design principles that can be applied to the Sports Centre to achieve the aims of this research study.

Empowerment: In order for Empowerment to be effective a multi-level process of empowerment needs to be incorporated to engage the Youth, Sports Centre and Community.

- Sporting and learning activities need to be incorporated in the Sports Centre to empower rural youth.
- Activities and roles need to be identified for the youth to participate in that will also empower the Sports Centre.
- Activities that the Youth and Sports Centre can partake in to empower the local community based on their needs need to be identified.
- Participation of the youth and community in the planning, implementation, construction and maintenance of the facility.

A sports centre that forms an integral part of a public space for the community has the potential to achieve “place” and “place making”.

- To identify an architectural approach to “place” the local history; culture; and traditional construction methods, materials and typology need to be considered.
- A variety of activities need to be incorporated into the public space to encourage more frequent use of the space and support the needs of the community from day to night.
- Opportunities to support the informal economy need to be incorporated to provide economic opportunities to the community.

Ecological Systems Theory has been used widely in Youth Development as well as in monitoring development activity in Sport. To support the various systems in the theory the following activities need to be incorporated into the sports space.

- Microsystem- Activities that compensate for the developmental shortfalls in the home, school and community systems. For example teaching life schools or providing access to computers and other specialized tools need to develop the youth.

- Mesosystems – Activities that can promote interactions between school, community and home systems directly involving the youth. For example the school teacher and parent interacting to discuss the progress of their child at school.
- Exosystem - Activities that can influence processes between school, home, and community systems not indirectly influencing the youth. The management of the Sports Centre needs to involve in important civic decisions and activities that affect the youth and can be achieved by hosting community meetings.
- Macrosystem – Ideas on how to develop positive culture and ideologies amongst the youth. The Sports Centre through its programs could present a positive vision and future for the youth to focus their energies on.
- Chronosystem – Identify activities that can result in simultaneous improvements in the youth's context (Microsystems, Mesosystems and Macrosystems) as the child is developing. For example providing development programs for parents and teachers will enable them to nurture the child better at home or school increasing youth development.

The next Chapter will be a review of current Literature to identify additional criteria to develop the functional and spatial needs of the Sports Centre.

CHAPTER 4: LITERATURE REVIEW

4.1 Introduction

A narrative literature review which is useful in identifying voids and disparities in a body of knowledge has been used to provide the necessary background, information and context to inform the framework and objectives of this research study. The research draws on a myriad of information from both academic and professional sources and bridges a number of academic disciplines from; architecture; sociology; psychology; and economics. The research will be used to develop indicators as to relevant precedent and case studies to analyse. The structure of this literature review has been organised into themes in order to identify key information to fulfil the objectives of this research. The introduction is a review of the current youth challenges in rural areas. The main themes are Sports and Youth Development. The sub themes are the potential Economic, Social and Physical impacts of the Sports facility. The principles derived from the literature review will be used to inform the appropriate architectural and urban design response to satisfy the aims of this research study.

4.2 Youth Development

This section will explain the history behind the current youth situation in South Africa. The current mechanisms of Youth Development in South Africa will be analysed in comparison to successful strategies used internationally to identify strengths and weaknesses for improvement. The aim would be to define a strategy that can work in a rural town in South Africa.

4.2.1 The context of Youth Development in South Africa

This section is to give the reader a brief historical context to the current youth situation and current strategies of Youth Development in South Africa.

From 1948 to 1994, the inhabitants of black rural areas were considered by the apartheid regime simply as reserve labour and not deserving of development (ruraldevelopment, 2015). The Bantu Education Act of 1952 was an oppressive systems that made sure that Blacks were provided with inferior education limiting their potential to keep them in the

working class (Stanford, 2004). The rights and opportunities of young black people through the repressive and racially-oriented system of coercion of apartheid denied the special needs of the youth leaving them without support in a difficult and ever changing society (POLITY National Youth Policy, 1997).

On the 27 April 1994 South Africa held its first multi-racial general elections symbolizing a new beginning following the collapse of the apartheid state and the ushering in of democratic rule. Post 1994, the aim of the newly elected ANC government was to address and rectify the inherited gross inequalities of apartheid, socially, economically and spatially basing their development strategy on the assumption that urban development would eventually reach rural areas. The anticipated economic impact on rural areas did not take place (ruraldevelopment, 2015). Projects improving and developing social services and infrastructure have benefited cities in urban areas immensely. By contrast rural areas still endure extreme levels of poverty, social deprivation and underdevelopment.

Youth Development is at the core of South Africa's priorities as its future depends on it being strongly influenced by the historical events that have had an impact on the country and its democratic goals. The principles that Youth Development are based on are Economic and Social Justice; Participation; Human Rights; distributive and liberal values; and the promotion of public benefit (thepresidency, 2015).

President Nelson Mandela (1918-2013) introduced the National Youth Policy (NYP) in 1997. The NYP was based on the vision that the youth could be involved in the development and reconstruction of their own country and communities whilst contributing to their own development, achieving their dreams. The NYP serves as a Youth Development framework guiding youth programs and services provided by non-government organizations (NGO's) and government to tackle important issues critical to the youth (POLITY National Youth Policy, 1997). The policy is revised every 5 years based on statistical information.

In 2008 the National Youth Development Agency (NYDA) was established by an Act of the South African Parliament to address Youth Development issues at a National, Provincial and Local government level. Its mandate is derived from legislative frameworks such as the NYDA Act (54 of 2008), the NYP (2015-2020) and the integrated YDS (2013 - 2023). The role

of NYDA is to ensure that all major stakeholder's being civil society, private sector, and the government prioritize, contribute, identify and implement long lasting solutions to address Youth Development and its challenges (nyda, 2015).

NYDA's key performance areas are:

- Economic Participation by enabling youth to acquire entrepreneurial skills leading to sustainable self - employment, and the creation of youth owned businesses.
- Education and Skills Development by facilitating access of youth to tertiary education, practical skills development training and job placement
- Health and Wellbeing by promoting good health practices amongst the youth and bringing awareness on issues such HIV, nutrition and substance abuse.

Implementation of the NYDA key performance areas could address some off the youth challenges in rural areas however the closest NYDA office to the Ndwedwe town center is in Kwa-Dakuza which is 60km away. There is no infrastructure in Ndwedwe to accommodate them. Incorporation of such an agency into a Sports Centre is an idea which could be investigated.

At the First Global Forum on Youth Policies hosted in Baku, Azerbaijan under the auspices of the UN's Special Envoy for Youth in October 2014 the South African 2009 - 2014 NYP was praised for targeting groups instead of relying on age as the determining factor. The policy targets groups such as young females, disabled people, unemployed youth, rural youth, youth who are not in school, and so forth. Recent statistics (refer to table 1 and 2) indicate that there is a stark difference between policy and the reality of the current youth situation. Some of these realities are the low quality of the education; high unemployment; the high incidence of HIV; and high levels of violence.

Janet Jacobson (2015) from the DG Murray Trust (DGMT) offers a critical view of the 2009 - 2014 NYP. One of the weakness in the policy she argues is that it treats each group as homogenous and does not cater for diversities created by identity-intersections. For example a disabled black female will experience challenges from more than one group which the policy does not cater for.

The South African Human Rights Research Council (HSRC, 2015) reviewed the draft 2015 - 2020 NYP and had the following criticisms:

- The NYP is still firmly entrenched in a deficit reduction framework based on youth problems obtained from situational data.
- It does not take into the account the needs and experiences of young people in remote rural areas vs urban areas.
- It takes has a blanket approach to youth and does not take into consideration the needs of different age groups; treats youth as homogenous groups whereas they are subject to varying levels of oppression and identity intersectionality such as race, class, gender or location affecting their vulnerability.
- Due to an unclear policy conceptual framework and deliverables, the policy fails to engage with the infrastructure needed to deliver the goals of the policy.

South Africa has a diverse youth situation and it is clear from the criticism that it will be difficult to tailor a one size fits all solution. According to the HSRC (2015) does not take into account the needs of rural youth. Rural areas are also lacking in infrastructure and resources which is needed to effect the strategies in the NYP. The cause of slow progress in reducing inequality and eliminating poverty in South Africa according to the National Development Plan (NDP) is the failure to implement policies and an absence of broad partnerships (SouthAfricanGovernment, 2011). Criticisms and statistics imply that the NYP will not be effective in rural areas. A new solution needs to be sought. A facility at grass roots level with the required infrastructure that can receive live data and respond effectively may be more effective.

Jobson (2015) recommends the following improvements to the NYP:

- Sufficient resources to effect these strategies and more accountability from government departments.
- All sectors of society need to pull together in order for Youth Development programs to be effective.
- To improve quality of Education, parents and communities need to work closer with each other and their children's schools.

- Business needs to think of new ways for youth to enter the job market. NGOs, youth groups, and communities should engage with and invest in young people to develop a dynamic and confident sense of self.
- Strategies need to cater for a diversity of identities in addition to addressing the risks, vulnerabilities and strengths of the youth.

The NYP could be viewed as a top down approach. Whereas the intentions are good implementation is poor. Active participation by all sectors of society suggests a bottom up approach where a contextually appropriate solution can be found for each situation.

4.2.2 Current youth challenges in rural towns in South Africa

In this section the current situation of the youth in rural areas will be investigated.

After decades of Apartheid, life in rural areas is still characterised by harsh poverty and exclusion. In 2012, 45% of South Africa's children (aged 0 – 17 years), equivalent to 8.4 million were living in rural households. People living in former homelands which are rural in nature are much poorer than urban dwellers (kzncomsafety, 2010). Due to the legacy of apartheid these inequalities still manifest along racial lines. 90% of urban youth are white, coloured or Indian in comparison 47% of African children (Hall, 2014). The level of Social development is in general lower in rural areas and access to essential services such as sanitation, water and electricity is severely lacking. Due to a lack of economic opportunities poverty is a major problem limiting access to Education, Health and Shelter (kzncomsafety, 2010).

Poverty has reduced the educational outcomes of rural youth (education 2011 cited Van den Berg 2008). Due to the impacts of Apartheid many rural parents lacked development opportunities, are functionally illiterate and innumerate and cannot provide for the professional assistance, books and learning materials to provide sufficient support for their children (education, 2011). The youth need access to resources and activities that can aid in their development. Parents need to be empowered to be able to provide better support for the youth.

Essential services such as electricity, running water, libraries, laboratories and computers are still lacking in most rural schools. Overcrowding of classrooms; violence amongst pupils and directed towards teachers; and female students being harassed sexually by male teachers and fellow pupils diminish the education outcomes of schooling (kzncomsafety, 2010). Due to limitations in financial resources in rural schools the services of suitably qualified and good teachers are difficult to procure and maintain. School drop outs are higher in rural schools than in urban schools (Gardiner, 2008).

In rural towns there is a lack of child support and services to enable youth to report sexual abuse and receive therapy. As a result victims often succumb to the abuse negatively impacting on their development. Children also find it difficult to report crimes that were committed by adults that they know (kzncomsafety, 2010). Family life is negatively affected by the migrant labour system as parents, usually males leave their children in rural areas seeking work elsewhere; the rise in female headed households and single mothers in rural areas; and the rise in women joining the workforce due to economic circumstances (kzncomsafety, 2010). This has resulted in children growing up without an adequate male role model with financially challenged mothers who cannot provide for all their needs.

The 2014 Quarter 4 Labour Force Survey in South Africa has indicated that the unemployment rate amongst the youth is at 67.4%, with females being more at a disadvantage. This percentage is considerably higher as it excludes youth that have given up looking for work due to discouragement. (thepresidency, 2015).

The DTI (2013) states the reasons for high youth unemployment as:

- A lack of appropriate skills for the current job requirements in the economy.
- Demotivated youth not looking for employment.
- A lack of networking and job search skills.
- A lack of work experience.
- The increase in the youth population exceeding the number of formal jobs that the economy has created.
- Lower levels of economic growth.

According to the DTI (2013) young people can achieve independence and a place in society as successful adults by participating in the economy via the creation of youth owned enterprises. Entrepreneurial activity in rural areas is currently very low. The 2010 Global Entrepreneurship Monitor (GEM) labour report confirmed this stating reasons being a smaller market in rural areas; a lack of investment in infrastructure development and a low level of skills amongst the youth in rural areas. This has resulted in excessive rural urban migration of youth (the presidency, 2009). Unskilled youth end up being destitute whilst skilled youth leave their rural communities under resourced in search of better offers in developed urban areas. In order to tackle poverty and migration in rural areas economic opportunities need to be created in rural areas.

In 2014, 5.51 million people were HIV positive, 479 370 (8.7%) of which were youth aged 15-24 years (statssa2, 2014). Factors that contribute towards the spread of HIV are all characteristic of rural areas being poverty; high mobility due to the migrant labour system; sexual violence; limited access to quality healthcare and a lack of awareness of the epidemic.

The challenges facing rural youth can therefore be summarised as follows:

- Parents lack the knowledge, resources and tools to provide adequate support and development for their children.
- The lack of a positive male role model due to the migrant labour system and single mothers resulting in insufficient parental interaction and guidance.
- Inadequate nutrition, clothing and shelter due to poverty.
- Disenchanted and demotivated youth who cannot see a way out of their impoverished circumstances.
- Social exclusion and deprivation due to poverty.
- A lack of infrastructure, services and civic amenities resulting in fewer opportunities for rural youth in comparison to urban youth.
- Sexual abuse of the youth at home and at school. A lack of therapeutic and support services aggravates the situation resulting in damaging long term effects on the youth.

- Rural schools have fewer resources and facilities than urban schools. Rural schools also fail to attract qualified and competent teachers which reduces the youth's ability to compete effectively at tertiary level.
- A lack of appropriate skills training and career guidance.
- A lack of economic opportunities in rural towns resulting in few jobs, high unemployment and rural urban migration of youth.
- A lack of support for entrepreneurial activity.
- HIV/ Aids. Poor awareness and exposure of the youth and community to the epidemic

UNICEF (2014) recommends identifying creative new ways in which the youth could be equipped and developed into the next generation of leaders is important to the advancement of growing economies. Sports programs in developing countries can aid the youth to meet challenges, take community leadership roles, and provide opportunities for them to express themselves and become agents for change (Unicef, 2014). Harnessing the potential of rural youth through the proposed Sports facility could therefore result in economic transformation of rural areas and have positive impacts on the South African economy.

4.2.3 Current strategies in Youth Development

In view of the criticisms of the NYP this section will investigate successful strategies in Youth Development used globally and compare it to the NYP to identify weaknesses that can be improved upon.

Positive Youth Development (PYD) emerged in the 1990's in response to the negative and disciplinary methods of the "traditional youth development approach". The scientific study of adolescent development was founded by Granville Stanley Hall (1844-1924). Adolescents were viewed in terms of what they lacked in comparison to mature adults. This deficit perspective influenced the scientific study of youth development by youth workers, public policy makers, researchers, teachers and parents for approximately 85 years (Tufts, 2011). In the 1990's this frame of reference shifted. Young people were viewed as resources that could be developed instead of problems that need management (Tufts 2011, cited Lerner 2005). A key aspect of this new focus was plasticity implying that the route of adolescent

development is not rigid however can be influenced greatly by circumstances at school, in their communities and homes (Tufts 2011 cited Lerner 2006).

By dividing youth into 'at risk' groups to fix a single problem the NYP follows the deficit model which does not address the child's needs holistically often relying on resources outside the community. The PYD Model focuses on the youths strengths, addresses the holistic child development and draws from resources within the community. The NYP draws up solutions based on statistical information and situational analysis which does not provide adequate solutions to target youth from different age groups, identity intersections and socio economic backgrounds. The PYD model using resources from within the community, is able to identify youth issues first hand and is able to provide age and identity appropriate solutions.

Effective PYD programs emphasize three main components:

- (i) The development of life skills and personal
- (ii) Positive interactions with peers, adults, and community relationships to develop capabilities.
- (iii) Productive, constructive and intentional engagement of the youth in programs which identifies and develops their talents.

(Tufts, 2011).

Physical activities in school and community contexts have been identified as viable environments for promoting PYD according to longstanding research supported by evidence from a multitude of disciplines such as kinesiology, recreation, education, and psychology (Weiss, Wiese-Bjornstal 2009 cited Clark et al 2009, Deakin et al 2005, Scanlin et al 2005, Martens et al 2008, Weis 2008, Wiese-Bjornstal 2009). Physical activities are not just limited to organized sports and include walking, cycling, dancing, recreational activities, recess and the development of motor skills (Weiss, Wiese-Bjornstal 2009 cited Strong, and Malina 2005).



Figure 12: Positive Youth Development through Sport. Image courtesy of chsolutions (2009).

A positive life skills program is modelled for every athlete and taught by parents, coaches, board members and program directors. Sports participation is utilised as an avenue to develop seven life skills traits required for success in the activity as well as beyond in adulthood: Healthy Lifestyle, Teamwork, Engagement in schoolwork, developing a positive character, engagement in civic duties and leadership roles. (chsolutions, 2009).

The ideas of these writers indicate that Sport is a viable context for PYD to occur. By including parents, teachers and the community local resources and knowledge are being used resulting in a contextually appropriate solution tailored to meet the varied needs of local youth. Identity intersections can be accommodated for. In the next section the use of Sports in Youth Development will be investigated in more detail.

4.3 Sports

This section will discuss the use of Sports in Youth Development; investigate current strategies that use Sport to develop Youth in disadvantaged areas; identify how Sports facilities could create economic opportunities; identify how sports could improve social cohesion; and identify how the physical impacts of the Sports Centre could be best utilised to promote future development.

4.3.1 The use of Sports in Youth Development

Sport has been identified as a successful activity in which to promote PYD in the previous section. Youth Development centres however could be designed around other activities. Why use Sport? A Youth Centre with a development agenda on its own may not be desirable

enough to attract local youth. A desirable activity that is of common interest is usually required to attract the youth to partake in development programs and activities.

Sport has the power to inspire, mobilize and attract. According to the United Nations (2015), participation in sports develops respect for one's opponent, the acceptance of mandatory rules, fair play and teamwork. Sport enhances youth development by increasing self-esteem; improvement in health, fitness and physical skills; assisting in educational achievement; and creating a platform for future success in the working environment (Coakly 2011 cited Coalter 2007, Donnelly 2007). Sport and play can develop relationships; promote identity formation; improve self-esteem and enhance access to leadership opportunities (Koss, 2011).

J. Coakley (2010) explains his ideas on the socialization experience of Sport. When participation in sports broadens an individual's relationships, experience and identities beyond sporting environments positive socialization occurs and negative socialization occurs when they are limited to a purely sporting environment (Coakley, 2010). Limiting experiences to a purely sporting environment could result in the youth developing a purely athletic identity. Youth that do not display sporting prowess may develop a negative identity about themselves. Developments that are intended to integrate sports and play with non-sporting activities should be given preference (United Nations, 2015). According to Holt & Neely (2011) a variety of environments should be provided for children to experience PYD such as organized sports, physical education in school, instructional programs, and intramurals.

The likelihood of positive development outcomes are in the form of Sports Plus and Plus Sports programs according to Coalter (2007) who conducted reviews on the methodologies of sport and development in the UK. The objectives of Sports Plus programmes are based on increasing sports participation by making the necessary coaching, resources, and equipment. General fitness and health; the development of life skills; and education are secondary benefits that result from these programs. Secondary benefits that result from this program are improvements in health, opportunities for life skills development, education, and overall fitness.

Plus Sport programs focus on non-sporting outcomes such as abstaining from destructive behaviour like drug and alcohol abuse; providing mentorship to guide the youths; or to improve outcomes in education. Existing community or educational organizations are involved in these programs using sport to promote social change.

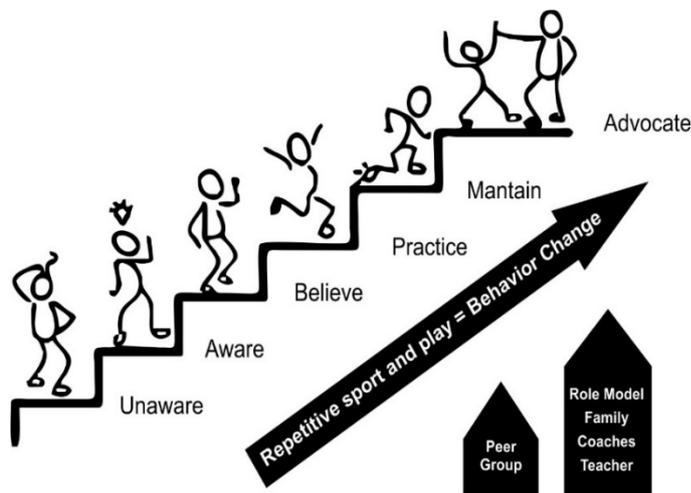


Figure 13: Illustration of behavioural change in youth through Sports Participation. Image courtesy of Moran & Emery (2015)

Well-designed sport and play programs allow youth to actively engage and enjoy the learning process whilst enhancing social connections amongst other students and teachers breaking down barriers and allowing discussion of sensitive issues. This can result in increased knowledge and behavioural change (Moran & Emery, 2015).

They NYP 2009 – 2014 states that the lack of sporting and cultural opportunities are a key challenge to Youth Development as they are very appealing to the youth. The sports and creative sectors need to address the requirements of the youth in job creation; promoting a healthier lifestyle; addressing education shortfalls and developing skills (the presidency, 2009).

The ideas from these writers support the notion that Sport is an effective tool for Youth Development. In the next section the relationship between Sport and Architecture will be investigated with regards to Youth Development.

4.3.2 Sport and Architecture for Youth Development

This section will investigate recent examples where Sport and Architecture and has been used for Youth Development. In the last 10 years, a number of organisations have been

involved in using Sport for development purposes in underprivileged areas in Africa. In some instances Sport for development forms part of the founding principles of these organisations. (FIFA, 2010) (UNICEF, 2015) (e-architect, 2014) (International Olympic Committee, 2010).

The International Olympic Committee (IOC) embarked on their Sports for Hope programme in 2009. Participation in Sport is one of the founding principles of the IOC however globally millions of youth have no access to facilities. As a result multi-sports facilities are being provided in developing countries to provide sports infrastructure to improve training, coaching and play; create a social hub for the community; provide health services; and to provide programs in education and life skills. In 2010 the IOC launched their first project "The Olympic Youth Development Centre" in Lusaka, Zambia. In 2010 Zambia's rate of extreme poverty was at 42.7% of the population with rural areas making up 57% of the total. The country was burdened with numerous challenges which included poverty, malnutrition and food insecurity; HIV and AIDS; and malaria 5 (WFP, 2015). The project was a partnership with the National Olympic Committee of Zambia, the government of Zambia and a group of International and National Sports Federations (International Olympic Committee, 2010). Between 2010 and 2014 over 13, 000 athletes have been engaged in various sports and non- sport programmes and a number of young athletes who had not practised sport before have since been integrated into national teams between 2010 and 2014 (TRIATHLON , 2014).



Figure 14: Olympic Youth Development Centre, Lusaka Zambia opened in 2010. Image courtesy of the International Olympic Committee (2010).



Figure 15: Olympic Youth Development Centre opened in Port au Prince, Haiti in 2014. Image courtesy of richterdahlrocha (2015).

This project is a good example of a Sports Plus program where the facilities have been provided to increase sports participation providing secondary benefits in education and skills development. This project will be analysed as a Precedent. Based on the success of this project the IOC has embarked on a second project in Port au Prince in Haiti (International Olympic Committee, 2010).

In 2007 Fifa, Architecture for Humanity and Street football world partnered to develop 20 Football for Hope Centres throughout Africa as an initiative to create a social legacy. The programs task was to construct 20 community centres for local organisations in 15 African countries. Soccer was used as for social development as well as to address public health issues and education (archinet, 2014). Participants are exposed to learning opportunities through sports and integrated programming. Life skills such as the management of conflicts, critical thinking, confidence, and leadership are learnt through sports participation. Tailored programs address pressing contextual issues such as education by providing literacy and computer classes; or health by providing awareness on family planning and disease control. Participatory design was used by the Architects, Architecture for Humanity allowing each community to integrate their own identity and empowering them. This is an example of a Plus Sports program as the focus is on non-sporting outcomes.



Figure 16: Khayelitsha Football for Hope Centre. Image courtesy of openarchitecturenetwork (2011) – Simple form of building fits in well with context.



Figure 17: Khayelitsha, Cape Town, South Africa. Image courtesy of travelcaptownsouthafrica (2015). Typical wooden and tin shacks in

On the 5 December 2009 the Khayelitsha Football for Hope Centre, their pilot project was opened in the Harare suburb of Khayelitsha, a township on the outskirts of Cape Town, Western Cape, South Africa. Khayelitsha is one the most marginalised and poverty-stricken township in South Africa's which is lacking in basic education and health care facilities. The

majority of the residents live in wooden or corrugated tin shacks with no access to electricity, clean water or sanitation. Unemployment is over 50% and the HIV/Aids infection incidence is the highest in the country (baphumelele, 2014). The project was constructed at a cost of \$ 256 000.00 (R 2 124 800.00 using the exchange rate of 1\$:R8.3 in 2009) and consists of a Youth Centre, Sports Facility, Health Clinic, and Community Centre (openarchitecturenetwork, 2011). The main aim of the Centre's host Grassroots Soccer is stop the spread of HIV using soccer to inspire, educate and organize communities.



Figure 18: Khayelitsha Football for Hope Centre. Image courtesy of openarchitecturenetwork (2011) Timber Screens Passive Solar Control



Figure 19: Khayelitsha Football for Hope Centre. Image courtesy of Kelto (2010). The soccer pitch is open to the community context and can create a hub to meet and socialise.

In 2010 the Siyakhona Skills Development media programme was established to teaching participants how to use cameras, use video editing software and work on their journalistic skills. In 2009, 6000 youth graduated from the skills curriculum. This has led to job creation and economic growth as students are now producing professional quality films (Openarchitecturenetwork, 2011). Sustainability has been incorporated by the use of solar water heaters and photovoltaic cells to reduce the demand on the grid as well as rainwater harvesting to water the garden. Timber screening has been used to create passive shading of the façade. More than 50% of the labour was sourced locally instilling a sense of community ownership and developing skills.

To launch Nike's partnership with Product RED it created the "Lace Up, Save Lives" campaign in 2009. Product RED was created as a business strategy by Bobby Shriver and Bono to improve the awareness of the battle in Africa against HIV/AIDS. On 09 June 2010, Nike opened the "Nike Football Training Centre" in Kliptown, Soweto, South Africa. Kliptown

is approximately 40km from the Joburg CBD and is made up of a sprawling collection of settlements, 85% of which consists of informal settlements (southafrica, 2005).



Figure 20: Nike Football Academy, Kliptown, Soweto, Gauteng, South Africa. Image courtesy of e-architect (2010). The academy faces north overlooking the pitch and uses timber screens for solar control.

The soccer academy is part of Nike's commitment to the South African Community (joburg, 2010). The schedule of accommodation consists of exclusive training facilities which are made up of four pitches, a gymnasium and a physio room; a wellness centre, a HIV/Aids testing facility and clubhouse (Rufproject, 2010).The facility is an example of a Sports Plus program as the objectives are to increase participation in soccer whilst providing secondary benefits in education and HIV awareness by a corporate company practicing social responsibility (joburg, 2010). This project will be analysed further as a President Study.



Figure 21: Lungisa Indlela Village. Image courtesy of LIV (2015).Volunteers and Professional Sports Players teach youth sport at LIV



Figure 22: Lungisa Indlela Village. Image courtesy of LIV (2015).Life skills training being given before a game.

Lungisa Indlela Village (LIV) is situated in Cottonlands, a rural area in Kwa Zulu Natal, South Africa. The site is 19kms from the Ndwedwe local Municipality. Orphaned and vulnerable children from rural and poverty stricken economic backgrounds are placed into foster

care with a trained mother who provides a family environment, provided with a school to educate them, meeting all their physical needs. Sport is used as part of the overall program for development. Youth are taken in from infancy and nurtured until they turn 18. This is an example of a Plus Sports program where the main objectives are the non-sporting outcomes. Ideas on how holistic development and sport is integrated into the program at Live will be investigated during a Case Study of this facility (liv-village, 2015).

These recent initiatives illustrate that Sports and Architecture has been successfully utilised to enhance the development of youth in disadvantaged communities. Precedent and Case Studies identified in this section will be carefully analysed to identify design principles to apply to the proposed architectural solution.

4.4 The Economic impacts of Sports Facilities

In this section ideas on how the Sports Centre could be utilised to stimulate economic activity in rural towns will be investigated.

Many sport and recreational facilities are not feasible business operations as they are usually expensive, outweigh the cost benefit analysis depending heavily on public investment and local government funding who do so because the community benefits outweigh the financial costs (Grieve & Sherry , 2011).

According to Mr Vijay Balram the General Manager at the KwaZulu-Natal Department of Sports and Recreation (KZN DSR) South Africa, local municipalities are the beneficiaries of sports facilities. The KZN DSR develops the brief and norms for the sports facility based on their assessment of the needs in the area. Funding is then transferred to the municipality to construct the sports facility. A project manager is appointed by KZN DSR to oversee the construction of the sports facility. The municipality responsible for the Sports facility thereafter. In some instances the KZN DSR provides a maintenance grant to hire staff and buy equipment as well as to the various Sports Federations to train staff and coaches to work at the Sports facilities (Balram, 2015) . Mr Mhlongo (2015) the manager for Tourism and LED advised that the Ndwedwe Municipality only receives one million rand in funding to

attend to youth in 19 wards which is not sufficient. As a result they rely heavily on corporate sponsorships. Therefore even though the Sports Facility may be funded on behalf of the Municipality the management and maintenance of the facility may be a challenge to the municipality due to funding. The Ndwedwe Municipality is 100% dependent on funds from the National Government (Ilembe, 2012). Operating a facility that is wholly dependent on state funding will add more financial strain to the state budget. Ideas that can subsidise the costs of the facility need to be identified.

A survey was conducted in 2014 of Sports facilities in the United Kingdom (UK) to determine the economic impacts on the local economy. The findings revealed that the effects on the wider economy were not much and more often nil. Effects on salaries were small and limited to particular skills. Some projects indicated an increase in trade imports and exports, although these effects were short term. The positive effect was an increase in property values surrounding the Sports Facility. (WhatworksforLocalEconomicGrowth, 2014).

According to Coates and Humphries (2003), Noll and Zimbalist (1997) household spending is highly substitutable with money merely being shifted from one form of spending to another resulting in minimal economic benefits deriving from the development of Sports Stadia creating low paying service jobs if any. Many rural areas in South Africa are characterised by harsh poverty and as a result have low household spending budgets (kzncomsafety, 2010). In order to generate any economic activity ideas that can attract capital inflows into the rural economy need to be identified.

One possible idea to attract capital to rural economies is Sports Tourism. The International emergence of Sports Tourism has developed into an increasingly important component of South Africa's economy. In 2006, Sports Tourism contributed more than R 6 billion to the South African Tourism industry (SRSA 2012, cited SA Tourism 2006). Combining Sports and Tourism could result in a strong economic impact as they both contribute a lot the global economy on their own (Ross, 2001).

Sports Tourism supports the following three South African Government priorities: economic development; social cohesion and development; and political stability (SRSA, 2012).

Sport and Tourism according to Standeven and DeKnop (1999) can be regarded as cultural experiences. Sport is the cultural experience of physical activity and Tourism the cultural experience of space. The experience of a physical activity linked with an experience of place is therefore the essence of Sports Tourism (Standeven & DeKnop, 1999).

Sports Tourism can be further divided into 3 groups:

- (i) Event Sports Tourists: Tourists travel as spectators or participants in an organized sport event.
- (ii) Sport Attraction Tourists: Tourists travel for sport-related purposes however not in relation to participation or spectating.
- (iii) Recreational Sport Tourists: Tourists travel to participate or spectate in leisure sport activities such as mountain biking or water sports (SRSA 2012 – cited WTO).

Accessing Sports Tourism activities in rural areas may require a fair amount of travel for visitors. According to Hudson (Hinch & Higham 2011 cited Hudson, Orams 1999) Sports Tourism in peripheral locations is often based on the natural resources such as mountain climbing, skiing, rafting, kayaking and angling rather than access to their key markets. Ndwedwe has a variety of tourist sites that could form a good platform to develop Recreational Sports Tourism. The Nhlankakazi Mountain which attracts religious tourists during January; The Malangeni Game Reserve; Kwaloshe Forests; Carmen Mountains; Ozwatini Mountain escarpments and hilltops. Enterprise Ilembe, the economic development agency for the Ilembe district discusses the notion of using Tourism to provide economic opportunities to rural dwellers in Ndwedwe. Cultural Tourism can be used to promote and market local arts and crafts. Recreational Sports Tourism in the form of horse and hiking trails, 4 x 4 routes, horse and hiking trails can be used to capitalise on the areas natural tourism assets (enterpriseilembe, 2011).

According to Ross (2001) the spirit of the local community, identity and national heritage can be strengthened by Sports Tourism as they work together regenerating and preserving their cultural traditions. Rural tourism can aid in economic transformation through the expenditure of tourists in the local economy creating new small businesses and employment opportunities (Polo and Frias, 2010). The ideas of these writers support the notion that

providing a space to support Sports Tourism can provide economic benefits to rural areas alleviating poverty. The Indigo Skate Camp is a good local example of the inclusion of Tourism into a Sports facility. The camp was founded in 2001 by Dallas Oberholzer, a local former pro skateboarder in the village of Isithumba, valley of a 1000 hills, Pietermaritzburg, Kwa Zulu Natal, South Africa. The camp uses the action sport of skateboarding to engage the youth in developmental activities. Youth from surrounding villages have been trained as Tourist Ambassadors. Cultural Tourism is stimulated by visits to observe traditional Zulu Ceremonies as well as the local, headman, traditional healers and medicine man. Recreational Sports Tourism capitalises on the areas natural tourism assets being surrounded by beautiful forests, a passing river and combines these with activities such as Mountain biking, Hiking, Quad biking, Mountain Climbing and River Surfing. Tourism provides economic benefits to the community who derive an income growing fresh produce, preparing traditional meals and selling cultural artefacts. (indigo, 2015). This project will be analysed in more detail as a Case Study.

A case study conducted by Suzzane Dowse (2012) revealed the economic benefits of hosting large sporting events by analysing of the 2010 FIFA World Cup hosted by South Africa concluding that mega-sports events can be used to encourage economic, political and cultural activities. The significance of this event was the potential to rebrand an area by changing people's perceptions; the economic benefits of tourist influx on the local economy; unifying citizens to work as a team resulting in nation building; and strengthening regional and foreign relationships (Dowse,2012). The host community can benefit from increased tourism, recognition, media coverage, as well as economically as a result of mega sports events (Chalip, 2007). The Sports Centre should comply with international sporting standards for professional sports in order to be host large sporting events.

According to current literature the costs of developing and maintaining Sports facilities are high. Ideas that can be used to sustain the facility need to be identified to avoid a financial burden to rural municipalities. Sports Tourism has been identified as one idea which could include in the Sports Centre to generate revenue as well as create economic opportunities for the community.

4.5 The Social Impact of Sports Facilities

In this section ideas on how the Sports Centre could be used to improve Social cohesion in rural areas will be investigated.

A cohesive society is one which can create a sense of inclusion; promote mutual trust; offer opportunities of vertical mobility; defends against marginalization and exclusion; and can work towards communal well-being. Social Cohesion is made up of social inclusion, social capital and social mobility (OECD, 2012).

Social Mobility refers to the migration of individuals or groups amidst different positions within the system(s) of social stratification (britannica, 2014). Spaaj (2009) describes social mobility as alterations in an individual's social position which involve major changes in their life conditions and social environment. Social mobility can occur horizontally and vertically. Horizontal social mobility is the movement of an individual on the same social strata from one social group to another (Spaaj, 2009). An example is youth abstaining from drug and alcohol abuse and participating in sport and a healthier lifestyle.

Vertical social mobility is the movement of a social group from a lower strata to a higher Strata. Sport is used to attract and engage the youth to look at broader issues that affect the, engage them in personal and life skills development, and link them to a wider social network enabling access to more resources (Spaaj, 2009). This allows youth to progress to a higher social economic level.

Social Inclusion. Ferrie (2008) describes a socially inclusive community as residents having the opportunity to engage fully in the cultural, economic, and social life of their community. Sport according to Marivoet (2014) is a cultural phenomenon with great potential for social inclusion by bringing people, cultures and nations together; conveying a sense of belonging and fostering social interactions. The ethical principles derived from Sports participation promotes social inclusion by promoting fair play, tolerance, co-operation, loyalty, friendship and tolerance.

Social Inclusion in facilities can be achieved by:

- Planning for shared use of facilities; creating a public space that caters for multiple users; making provision for community services and social meeting places that are flexible and well integrated.
- Ensuring passive surveillance over the public space.
- Avoiding conflicts between user groups through user design.
- A permeable design with interconnected pedestrian and cycle routes to key locations (healthyplaces, 2009).

Putnam (1995) describes *Social Capital* as the elements of social life that enable individuals to act effectively together pursuing shared objectives (Heidary et al cited Putnam 1995). Sports participation creates Social Capital by creating bonds between members of sports teams who participate together and creating social networks that extend beyond the participants themselves such as with parents, supporters of sports teams, volunteers and support staff (Heidary et al 2012 cited Putnam 1995). Local Sports clubs can form a key focus of community life to rural dwellers according to Atherley (2006). Sports builds social networks at neighborhood level and strengthening community cohesion and resilience according to Richards (2015). Social capital is lacking as there are few facilities that can provide this social hub. A Sports facility will therefore improve Social Capital in rural areas. Eichberg (2010) recommends the use of "Sport for all" activities for the goal of building welfare in society. These activities are non-competitive and acquired from the practices of festivity, dance, outdoor activities, gymnastics, games and rambling instead of conventional modern sports (Eichberg, 2010). Sports for all is intended to be more inclusive to cater for all members of the community. Smailes (2002) claims that Social interaction through participation in sporting teams, community clubs and special interest groups such as rural or agricultural organizations can play an important role in shaping or re-enforcing a pattern of community identification and belonging (Atherly 2006 cited Smailes 2002).

Reviewing the ideas of these thinkers, Sports spaces have been identified as an effective tool for achieving social cohesion by promoting social mobility, social inclusion and social capital. Spaces that can be used as shared community spaces will need to be identified.

4.6 The Physical Impact of Sports Facilities

In this section ideas on how the Sports Centre could be used to stimulate infrastructure development in rural towns will be investigated.

Over the years Sports facilities have advanced from utilitarian high tech facilities to area regenerating facilities and business centers (AMSCG, 2009). The trend globally is to use Sports, Entertainment and Cultural facilities for urban development proposals (Bargachi, et al., 2010). The influx of people to the Sports facility could support the critical mass required to sustain other commercial activities in the vicinity as well as stimulate investment by the public sector by way of urban design or infrastructure development (Greenberg & Hughes, 2011). Roberston (1995) and Sternberg (2002) describe this phenomena as a “Special Activity Generator “(SAG).

According to Roberston (1995) three central objectives outlining the SAG strategy are:

- Generating spill over spending gains for the surrounding context.
- Generating new developments in the area.
- Rejuvenating an underdeveloped district.

The development of a Sports facility can result in the creation of city life that is used throughout the year, day and night as it can attract a mix of commercial, residential, dining and retail spaces to the area (AMSCG, 2009). A broad range of factors determine the improvements of Sports facilities on urban development. These factors include the sports culture of the community, locality, usage and context (Bargachi, et al., 2010). The inclusion of “Sports for All” activities could attract a wider section of the rural community improving awareness of the different sporting codes.

Evidence from empirical studies indicate that strong physical and visual connections between sports facilities and the urban environments are important. This can encourage development of the surrounding land by stimulating the flow of people through it providing visitors with opportunities to frequent other buildings (Bargachi, et al., 2010).

Three sets of factors guide the decision for site selection according to Chapin (2000):

- Technical: The cost of the land; characteristics of the site; political agendas; economic development plans and economic factors.
- The Sports facilities location is linked directly to a core market over time or it may be located as a SAG to stimulate economic development. In the case of this research proposal this would be the most important deciding factor.
- To identify a new fan base Sports facilities are located to provide easy access to these fans.

When Sports facilities are planned in co-ordination with entertainment, tourism and service sector interests, their statuses are enhanced (Hinch & Higham 2011). In the previous section the inclusion of Sports Tourism was discussed. This could stimulate the development of tourism services such as lodges and hotels for accommodation; public transport and shuttle services; entertainment and dining facilities which will enhance the Sports Centre.

Sizwe Mazibuko (2015), the development manager at Ndwedwe Municipality advised that there are no accommodation, dining and entertainment areas in Ndwedwe even though there are lots of tourist attractions. The residents of Ndwedwe have no place of entertainment and have to travel out of the area.

Some of the negative impacts of Sports facility development for local communities are congestion, litter, traffic, vandalism (Bargachi, et al., 2010). The usage of Event Sport and Recreational Sport Tourism is bound to increase traffic and patrons to the facility. Some improvement of road infrastructure has to be considered to accommodate this type of development in a rural context. Additional parking for coaches and vehicles will need to be taken into consideration.

The ideas of these writers indicate that the Sports Centre could be a stimulus for future development. In Chapter two the concept of creating a public space with a variety of uses and activities was discussed to achieve place making. These ideas indicate that the design considerations should also include the surrounding precinct creating opportunities for future development.

4.7 Conclusion

Sport has been identified in this literature review as a viable catalyst in enhancing personal and social development of the youth through the use of tailored development programs integrated with sport. Positive secondary benefits are also extended to the community through their inclusion in the program. Sports facilities can also have positive economic benefits by attracting visitors to the area who could support local industries and contribute to the local economy. Stimulation of economic activity and the attraction of large numbers of visitors to an area could then make it financially viable for future development.

The following criteria summarized from the literature review will be used to analyze precedent, case studies and data from key informants to identify how these ideas can be incorporated into the architectural solution.

Positive Youth Development and Sport - Identify what type of personal and life skills development programs have been incorporated and the spatial requirements; identify how participation of adults and peers have been integrated into the development programs, identify the most appropriate physical activities that can be used for PYD.

Social Mobility - Identify development programs and activities that have been incorporated with Sport resulting in the youth improving their position in society and their spatial requirements.

Social Capital- Identify spaces and facilities that can be used to encourage interaction and socializing between the community and visitors to the facility.

Social Inclusion - Identify what type of public spaces have been provided. How accessible, permeable and interconnected is the design of the facility with its context and other key locations.

Social Cohesion - Provide physical activities that are accessible to the public and appeal to a wide variety of the community.

Economic Impact - Identify how the facility is funded and what type of revenue earning activities can be used to sustain its operating costs. Identify what activities are suitable to attract Tourists and the spatial requirements to support them. Identify how economic opportunities can be created for the local community in the Sports Centre.

Physical Impact - Identify how the Sports Centre has been integrated into its context and stimulated future development. Identify if the Sports Centre was located to stimulate future development and the factors influencing site selection.

These criteria will be used for analysis and observation of Precedent and Case Studies in the next two Chapters.

CHAPTER 5: PRECEDENT STUDIES

This chapter focuses on secondary research sourced from architectural journals and electronic sources. Precedent studies where Sport and Architecture have been used to develop disadvantaged youth were identified and critically analysed against the theoretical framework of this research study.

5.1 PRECEDENT 1: Olympic Youth Development Centre (OYDC) Zambia



Figure 23: OYDC Zambia. Image courtesy of the International Olympic Committee (2010) Re-enforcing the centre's identity as an Olympic facility is the water tank encased within a steel shell shaped like an Olympic Torch located adjacent to the main entrance path.

5.1.1 Project Background

Zambia is a landlocked country in South Central Africa with a population of 13,092,666 according to the last census in 2010 (zamstats, 2010). In 2015 Zambia was described as the poorest country in the world in which seven out of ten people live on less than two dollars a day with an average life expectancy of 51 years (zambianwatchdog, 2015). According to the Worldbank in 2014, 60% of the population were living below the poverty line and 42% were contemplated to be living in extreme poverty (WORLDBANK, 2014). In 2013 youth unemployment was as high as 26% of the total population (quandl, 2015). The OYDC was the pilot project of the Sports for Hope Program. The program is a partnership between the IOC and International Sport Federations (IFS) who aim to construct state of the art multi-purpose sport facilities in developing nations to advance the values and principles of Olympism; and supply the youth and communities with opportunities in positive lifestyles and sport participation. The IOC (2010) has based this program on the experience and

conviction that providing Sporting activities in a permissive environment has the capacity to provide development and hope to impoverished communities. The OYDC Zambia, which opened on the 11 May 2010, was developed in partnership with the International Olympic Committee (IOC), the National Olympic Committee of Zambia (NOCZ) and the Government of the Republic of Zambia (OYDC, 2015). The OYDC provides sporting activities for up to 17 codes and educational programs for its athletes.

5.1.2 Justification as a President Study

The OYDC is an example of a Plus Sports Program using Sports to attract and engage the youth to promote Olympism in a disadvantaged community to address their challenges and promote a positive lifestyle. The context has many similarities to rural towns in South Africa with challenges such as poverty, unemployment, crime, HIV&AIDS, as well as a lack of infrastructure and facilities.

5.1.3 Site and Context



Figure 24: OYDC Zambia - Image courtesy of Google earth (2015) illustrated by author

The OYDC is located on a 140 000 square metre plot in the countries capital city, Lusaka along the Great North Road in the Mandevu constituency in close proximity to the newly built Heroes National Football Stadium. The surrounding context is made up of low income markets, 16 public schools with an estimated enrolment of 1500 to 2500 pupils each, centres for street children, bars, churches and residential areas with high densities. Approximately 100 000 people reside in the area. Youth and children are approximately 78% of the residents. Alcohol abuse and Promiscuity are rising issues in the community. (OYDC, 2015)

5.1.4 Project Objectives

The objectives of the OYDC Zambia are to provide positive life style and sport opportunities for coaches, athletes, administrators, and inadequately serviced youth, children, and women.

The Multifunctional Sports Centre achieves these objectives by providing athletes with opportunities to train in Olympic standard facilities and Educating the youth and community on the values and principle of Olympism. The OYDC organizes sports competitions, camps, clinics and coach training seminars. Community development services and Olympic education which covers topics such as empowerment of females and civic education are provided. By creating a space where the local community can meet and share experiences social development is achieved.

The youth are groomed to be leaders in sport and life skills activities. These young leaders take up coaching, officiating, and educating of their fellow youths and children at the centre and in satellite project sites.

Free health education and medical services are provided to athletes, coaches and staff creating an awareness and educating the community on the HIV Aids pandemic.

Environmental education programs educate the youth on environmental health issues through activities such as environmental clean ups and tree planting.

Free skills workshops are provided for the youth and the community.

5.1.5 Project Description

The OYDC has been established as a multipurpose sports facility supporting up to 17 codes of Sport. Outdoor Sports facilities include: A football field; a hockey pitch; an athletics track; multipurpose courts for tennis, handball, volleyball, basketball; and an Olympic sized swimming pool. Indoor Sports facilities include: A multi-purpose sports hall, a boxing hall, and a gym. There are a variety of educational and cultural areas, such as a library, classrooms, offices and an internet zone. The OYDC also has a lodge, restaurant and other structures which are open to members of the public in addition to the sports facilities. The OYDC has 400 employees attached to the facility (OYDC Annual report, 2013). The facility designed by Architects Richter Dahl Rocha & Associés architects (Argentina) has a GBA of 3800 m² and cost USD 10.3 million (R 124 746 374.27 based on the current exchange rate of \$1 = R12.11) (SACPCMP, 2011).

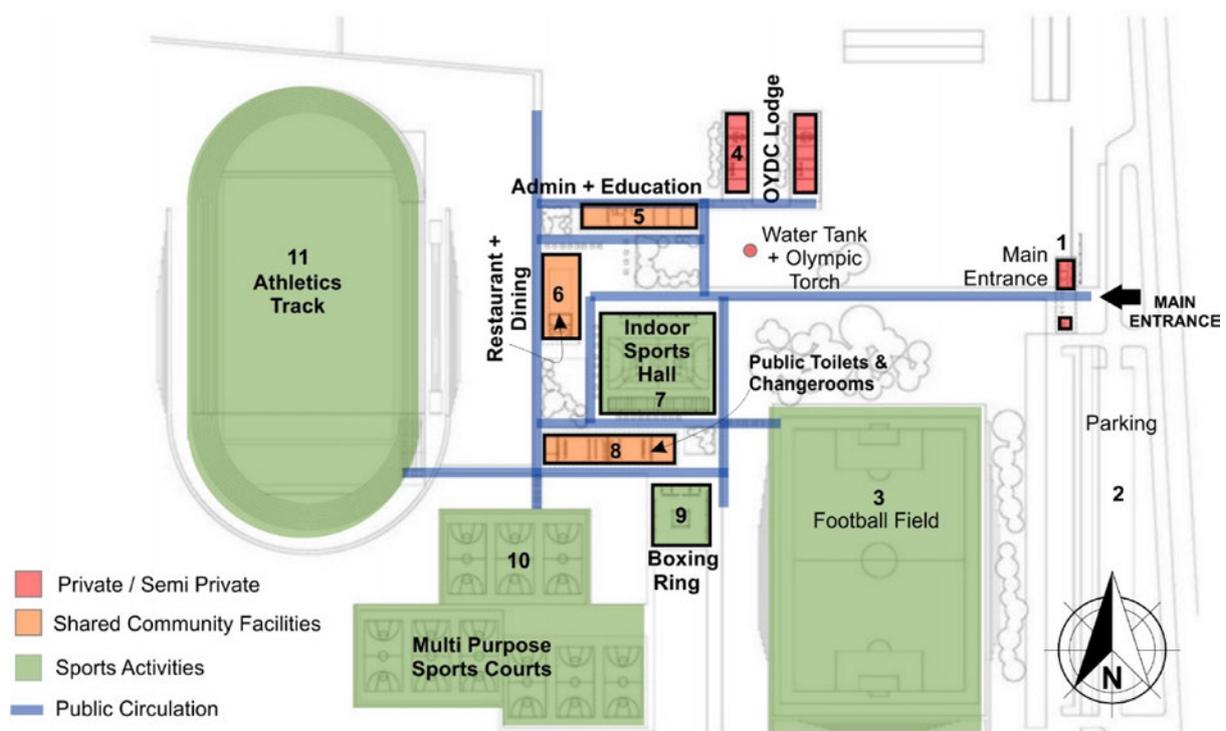


Figure 25: OYDC Zambia - Site layout of original scheme courtesy of Richter Dahl Rocha & Associés architects (2010) illustrated by author.

The main buildings are centrally located and arranged around an outdoor plaza, which function as an extension to the multi-purpose Indoor Sports Hall as well as the dining area. All buildings except for the Indoor Sports Hall and Boxing Halls are designed as brick volumes placed within a larger steel structure made out of structural steel portal frames. In the case of both the Indoor Sports Hall and the Boxing Halls, their enclosures are flush with the structure (so that the structure itself defines the enclosed volume). A water tank is located along the main entrance pathway elevated within a steel shell in the shape of an Olympic torch, reinforcing the centres identity as part of the Olympic community.

The facility has been successful in achieving its aims and objectives.

More children have access to high quality sport. Intermural sports competitions have identified national sports players and potential elite sportspeople. Between 2010 and 2014 more than a hundred athletes whom had not practised sport before have since been integrated into national teams.

Athletes and their families who partake in the program have an improved awareness and knowledge of well-being and health.

The centre is self- sustaining hosting over 1000 people on weekdays and 5000 on the weekends.

Media attention highlights the work of local sport and development groups resulting in funding from non-traditional sponsors. The OYDC is regarded by the community as an economic asset.

The skills development component of the program in conjunction with sports participation and life skills training increase the youth's chances of employment and financial prosperity. (The International Olympic Committee, 2010) (Paramasivan , 2012).

5.1.6 Analysis and Presentation of Findings

Concepts and Theories

This project has a multi-level empowerment process. The organization empowers the youth through sporting, skills and life skills training. The youth empower the organization by extending the program at OYDC to satellite schools and communities as youth leaders. The community is empowered by having access to the skills workshops, health services and social interaction at the organization. The youth and the organization work together to effect positive change in the community by participating in environmental activities such as clean ups and tree planting improving the quality of the environment empowering the community.

The facility has achieved the following aspects of place making. A variety of *Uses and Activities* that engage people from both sexes from all ages day and night from sports facilities to a library, classrooms, a lodge, restaurant and an internet zone. *Sociability* due to the variety of shared activities that are welcoming and non-exclusionary to the youth and community connecting people to one another The facility fairs poorly in terms of *Access and Linkages* with only one entry point and hard edges facing the adjacent streets and properties.

Youth Development and Sport

PYD has been achieved. The facility engages in broad based participation with the community, schools, N.G.O's and government organizations. A variety of sporting codes are available to participants. Life skills training is provided in a standalone building with 4 classrooms within the precinct.

The Economic Impact

The lodge, restaurant and fees from outside sports teams contribute to revenue for the facility resulting in the facility generating self- sustaining funds. Local Sport and development organisations receive media attention bringing about more awareness resulting in additional assistance, sponsorships and donations which supports Chalip's (2007) idea that mega sporting events have tourism generating potential and can attract

media coverage to local services. The urban design response however limits any spill over effects from the sports space from supporting surrounding services.

The Social Impact

Shared communal facilities as indicated in figure 25 are situated amongst sporting activities within a network of pedestrian paths allowing for greater accessibility and interaction amongst the youth and community as well as visitors to the site improving *Social capital* and *Social inclusion*. There is insufficient seating areas around the sports spaces to encourage more spectators. Non- competitive sporting activities should be provided for the community and those not participating in competitive sport (Eichberg, 2010).

Skills development workshops improve the employment and business prospects of the youth and community enabling them to reach a higher social strata. Youth with sporting talent have been identified through the program allowing them to pursue a professional career in sport. Through Sport and related development programs *Social Mobility* has been achieved.

The Physical Impact

The site is enclosed with hard edges and only has one entry point. Even though the facility receives over 1000 visitors a day the physical impact on the surrounding context is minimal as there are no linkages to other key locations. The hard street edge prevents any spill over effects of the facility from influencing development on surrounding properties.

Architectural Response

The Indoor Sports Hall has hard edges and does not relate to human scale which is inappropriate for Place making. Building 5, the education and administration building only has 4 classrooms with 30 seats each. The classrooms are not suited to practical skills training such as a workshop with tool. This limits the type of skills taught. The space for teaching is limited considering that more than 1000 people visit the facility on weekdays. The ability to share information on a much larger scale would allow more people to be educated. There is no relationship architecturally between the education space and sports space though they are both being used for youth development. There are no offices for the sports coaches

supporting the 17 codes of Sport and trainers on site. As a result the schedule of accommodation can be perceived as insufficient.

The steel framed structures have large setbacks providing adequate shading for the façade which is an appropriate climatic response. The “olympic” torch is an innovative solution to screening an unsightly water tank. The buildings are located at the centre of the site and focus onto an internal plaza. This limits surveillance of outdoor sporting activities. The site should have been laid out in a more structured manner.

Urban Design Response

The OYDC completely ignores the stadium whereas entry to the site could have been aligned with it creating a strong axis as well as sharing the parking. The hard street edge does not contribute positively to the surrounding context.

5.1.7 Conclusions

The OYDC supports a community and school population similar in size to Ndwedwe. As a result the spatial provision of sporting facilities can be adopted for this research study. As a Sports Plus facility the infrastructure favours sporting activities more than other facilities on site. This is evident in the minimal provision of spaces for education and office spaces. This accommodation will need to be increased for the proposed Sports Centre.

Rural municipalities have limited budgets to sustain Sports facilities. The OYDC Zambia is self-sustaining generating funds through fees from professional sports teams, the lodge, kitchen and dining facilities. These spaces should be included in the Sports Centre and improved to support Cultural and Recreational Sports Tourism.

Shared communal spaces have been successfully integrated with sports within a network of pedestrian friendly routes resulting in Social Inclusion and Capital. The spaces on the periphery of the site between the sports activity and boundary are isolated as there are no activities there. Creating a permeable edge with trading opportunities may have been a more appropriate approach.

The OYDC can therefore be used as a basis of spatial needs for the Sports Centre and infrastructure added to support other functions to attend to the challenges and development of rural youth.

5.2 PRECEDENT 2: Nike Football Academy, Soweto.



Figure 26: Nike Football Academy, Soweto, Gauteng, South Africa. Image courtesy of Rufproject (2010)- View facing the soccer pitch.

5.2.1 Project Background

Soweto is South Africa's oldest township and was established in the 1930's. Soweto is an acronym for South West Townships which was coined by the Johannesburg City Council in 1963. The township was established by the former South African Government pre 1994 as a labour reservoir for black migrant workers to support mining and industrial activities in Johannesburg at the time. In terms of the racial segregation policy at the time black areas were separated from white areas. (South African History Online, 2015)

Soweto's economy has not yet diversified over time due in part to being a labour reserve as work is usually found out of the area. Soweto's population was estimated to be about 1 250 310 in 2007. According to the City of Joburg, in their 2008 – 2012 Soweto 5 year Development Plan, Soweto's residents make up 43% of the city population of Joburg, has a rate of unemployment of 53%; and contributes 4% to the total economic activity of the metro (City of Joburg, 2008). Kliptown is approximately 40km from the Joburg CBD and is made up of a sprawling collection of settlements, 85% of which consists are informal (southafrica, 2005).

The Nike Football Academy was opened on the 09 June 2010 preceding two important dates in South Africa's History: Youth day on June 16th also known as the Soweto Uprising and 11 July 2010 which was the official opening of the 2010 FIFA Soccer World Cup in Soccer City, Gauteng, adjacent to Soweto.

5.2.2 Justification as a Precedent Study

This is an example of a Sports Plus program (Coalter, 2007) . Developing local skills in Soccer is the main aim integrated with secondary programs that deal with life skills and awareness. Though Soweto is a township, the socio economic circumstances of the youth and their challenges are similar to that of the youth in rural areas.

5.2.3 Site and Context

The site is situated on the corner of Chris Hani and Mokoena Street in a residential portion of Kliptown, Soweto, Gauteng, South Africa. Chris Hani is a main dual carriageway road which links the N1 and N12 highways to the site.



Figure 27: Nike Football Academy Soweto. Image courtesy of Google Earth (2015) illustrated by author.

The surrounding houses are simple single story units in a uniform fashion similar to that provided by state housing projects. There are a number of Public Schools in close proximity of the soccer academy.



Figure 28: Nike Football Academy Soweto. Image courtesy of archrecord (2015). Ariel perspective

5.2.4 Project Objectives

The Nike Football Academy was a 2010 Legacy Project that was built to promote the development of soccer amongst the youth in Soweto, educate the youth about HIV/Aids as well as provide leadership training. Nike intended the training center to support and respond to the mental and physical elements of the game of soccer. As a result ideas of aspiration, community, health, learning, health, pride, excellence and hope were incorporated by the design team (Rufproject, 2010).

5.2.5 Project Description

The 54 800 sqm site has four pitches. Two are full sized Fifa accredited artificial pitches and two of which are junior turf pitches. There are three buildings on site: The Football Academy (1300 sqm), the change rooms (313 sqm) and the caretakers with public toilets (150sqm).

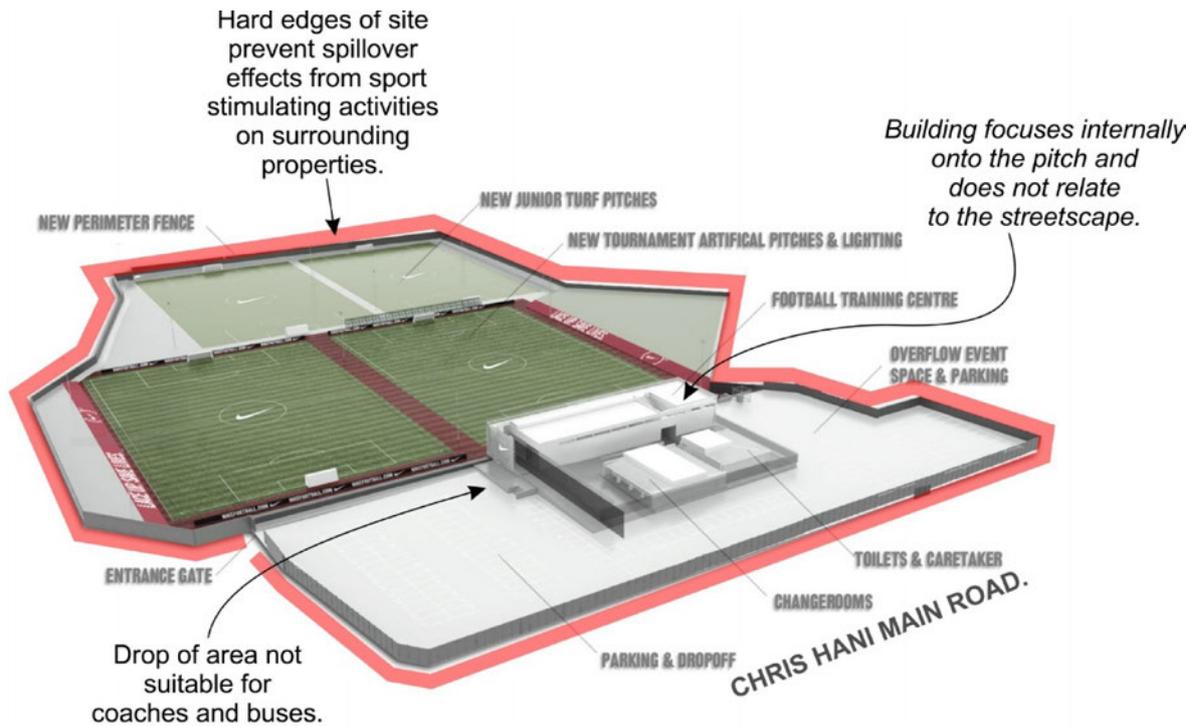


Figure 29: Nike Football Academy Soweto. Image courtesy of Burger (2012) axonometric view of site illustrated up by author.

This project was fast tracked and completed in 6 months. The Football Academy was constructed using a Steel Framed structure with concrete floors due to time constraints. The building is screened east, north and west facades from solar heat gain by a timber louver structure fixed to a steel frame which acts as a sun screen. The first floor of the building cantilevers on the north façade facing the pitch shading the kitchen, trial and gym areas.

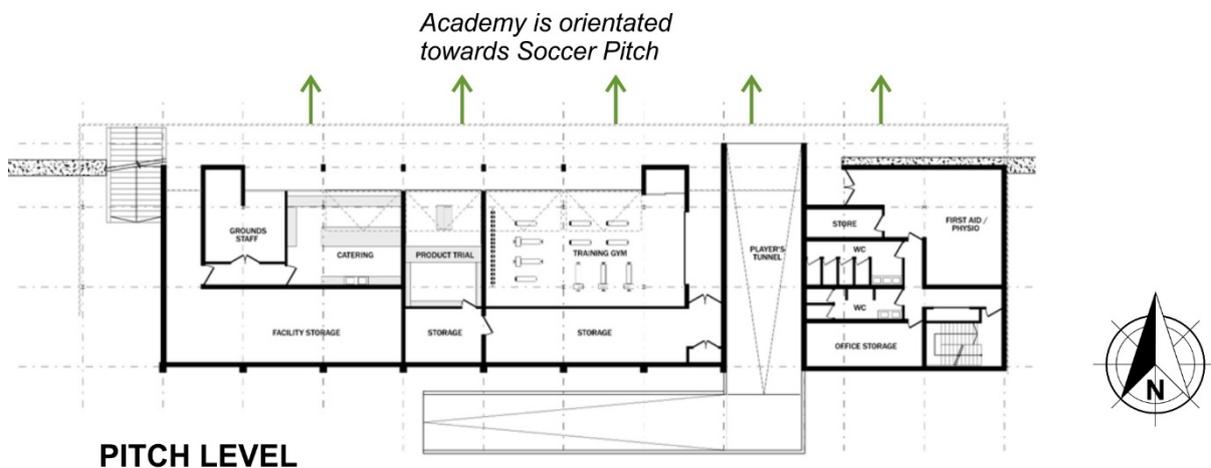


Figure 30: Nike Football Academy Soweto. PITCH LEVEL. Image courtesy of archrecord (2015) Lower Level opening out onto pitch.

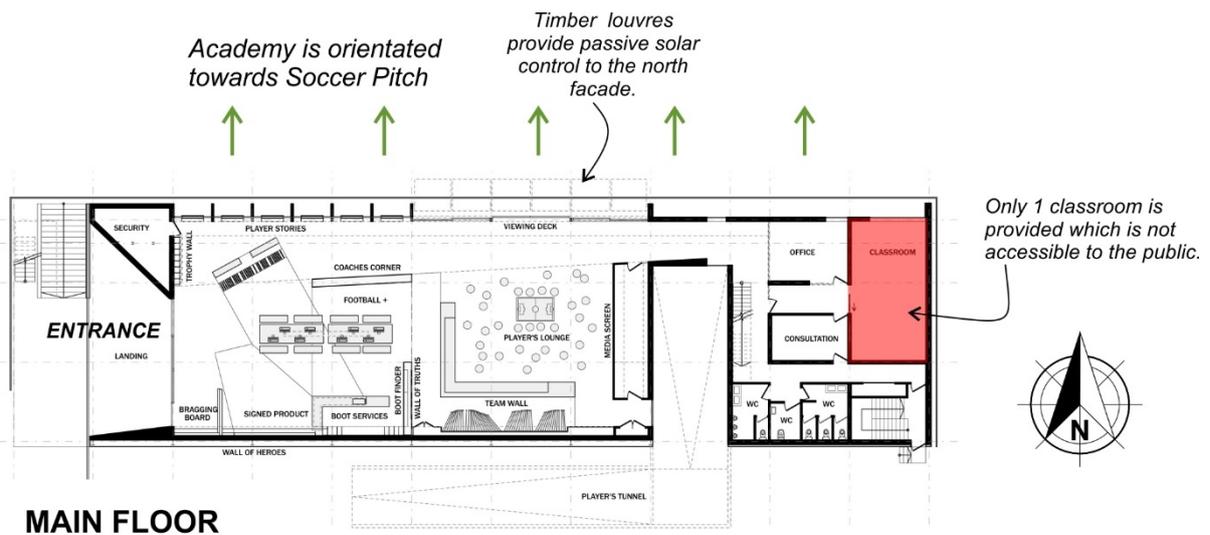


Figure 31: Nike Football Academy Soweto.MAIN FLOOR. Image courtesy of archrecord (2015) annotated by Author.

5.2.6 Analysis and Presentation of Findings

Concepts & Theories

Place



Figure 32: Nike Football Academy Soweto. Image courtesy of Mcgee (2010) Composition of materials and form to emanate a sense of place to Soweto



Figure 33: Typical shack in Kliptown, Soweto. Image courtesy of Bing (2011)

The design creates a sense of place of Sports space. The structure is a bold simple geometric form with locally sourced natural materials that does not overpower the simple nature of the surrounding houses and shacks. The external timber slats which provide solar shading mimics the brown sand found in Soweto. The natural stone walls at the base of the structure are a hint to the mining of Johannesburg on which Soweto was founded. Talented local soccer stars are allowed to engrave their names on the sandstone walls commemorating lock sporting heroes. The internal fence is made of an artistic chain link which mimics traditional African Art patterns.

In terms of *Place making* the Academy only succeeds in *Comfort and Image* by creating an attractive and appealing space using local building materials and recognizing local history by commemorating local sporting heroes. Hard edges limit *Access and Linkages* to other key locations. More variety in *Uses and Activities* are needed that can also be used by the community. In view of these shortcomings the academy does not succeed as a public space.

Youth Development and Sport:

Though the academy combines life skills training with soccer it falls short of achieving PYD by not forming broad based partnerships with schools, the community and businesses and only utilises soccer, a competitive sport whereas activities should also include non-competitive physical activities. The life skills training is limited to HIV awareness and does not deal with all the youth's challenges such as unemployment and skills development. In order to tailor suitable development programs partnerships need to be formed at grass roots level with the community. The academy is a platform for youth to pursue soccer professionally and leave their communities which does not support the aims of this research.

Economic Impact

There are no significant revenue earning services to sustain the cost of running the academy. The academy does not have sufficient infrastructure to provide opportunities for local business to capitalize on the influx of sports tourists. The site is isolated from its context with hard edges preventing potential business opportunities from emerging around the site.

Social Impact

There are no shared communal facilities on the site other than the public change rooms. The design and location of the classrooms and gym facilities are intended for use by the players only. As a result social capital, social inclusion and social mobility is limited to soccer players. The design, layout and provision of activities does not support social interaction which limits the social impact in the community.

Physical Impact

The project had to make use of an existing sports field surrounded by a residential area which limits future development around the site. Hard edges contain the activity on site which could have been used to stimulate business opportunities around the site.

Architectural Response

The climatic and contextual response of the Nike Football academy is appropriate to its site through the choice of materials, simple building form and passive solar control design features. The façade consists of a layering of brickwork infills within a steel frame, sandstone cladding and timber screens providing good solar protection to the hot climate. The glazing on the north façade overlooking the pitch is screened by timber screens. The building has a strong orientation with the soccer pitch with most functions including spaces like the gym opening out onto the field which results in passive surveillance.

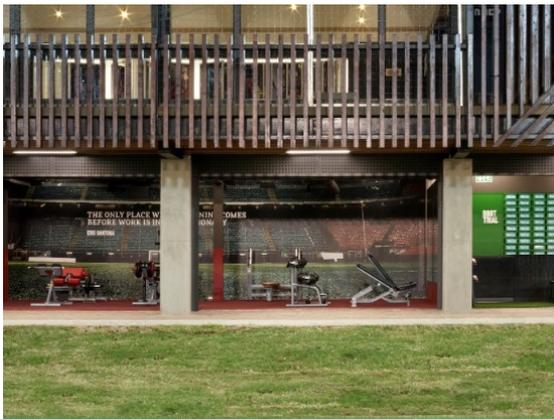


Figure 34: Nike Football Academy Soweto. Image courtesy of inhabitat (2010). Gymnasium opens out onto the field.



Figure 35: Nike Football Academy Soweto. Image courtesy of inhabitat (2010). The building cantilevers to the north shading spaces on the lower level.

The back of the building façade and change rooms face the main road. This is a lost opportunity to create an identity for the site and contribute to the streetscape.

The site does not have sufficient infrastructure to accommodate sports tourists such as shaded seating areas, food kiosks, or toilets near the field, diminishing the experience of observing the game especially on hot days.

The design accommodates for car parking however does not have an adequate drop of point for buses or taxi's which most youth in Soweto would travel by. A drop of area should be created along Chris Hani Main road.

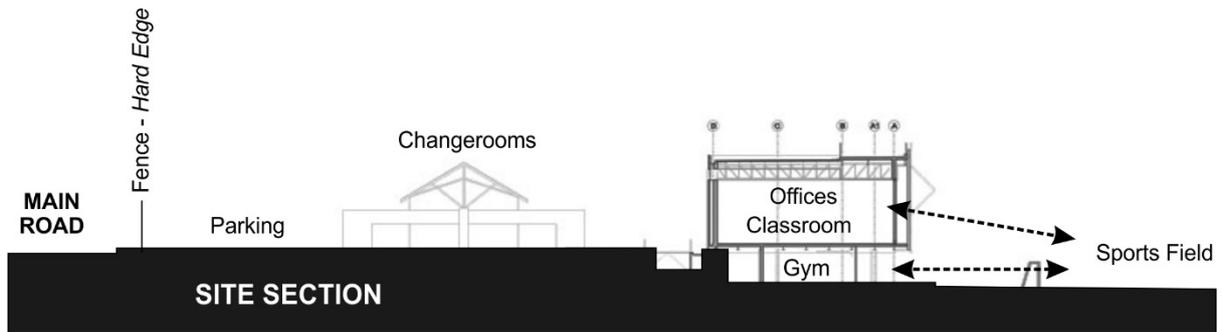


Figure 36: Nike Football Academy Soweto. Image courtesy of archrecord (2015) illustrated by author.

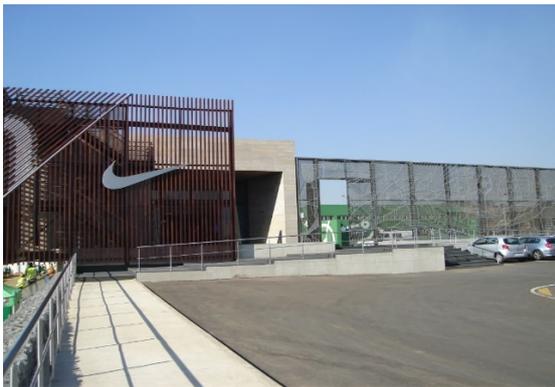


Figure 37: Nike Football Academy Soweto. Image courtesy of skyscrapercity(2010). A better sense of arrival with a drop off area for buses and coaches is preferred.



Figure 38: Nike Football Academy Soweto. Image courtesy of Mcgee (2010). Open seating areas with no shading. Hard edges to surrounding context.



Figure 39: Nike Football Academy Soweto. Image courtesy of Mcgee (2010). The Soccer academy is enclosed with a high fence forming a hard edge to the main street.



Figure 40: Nike Football Academy Soweto. Image courtesy of Rufproject (2010). Player's Lounge overlooking the main pitch.

5.2.7 Conclusions

The Architectural approach to “Place” and climate are key ideas that can be learnt from this precedent. The issues of placelessness of sports space was discussed in chapter 3.

Standard materials are used creatively to create a building that's unique to its place. The simple bold geometric form does not overpower the simple nature of the surrounding houses and shacks. The locally sourced natural materials relate to the context. The timber slats are a simple yet effective solution to shade the north façade of the building. The academy however only accommodates for one sport soccer and there is only 1 classroom provided for learner ships which is located in a private space of the academy. There are no revenue earning facilities and the site does not succeed as a public space. Spatially there is not much that can be gained from this precedent in this research study.



Figure 41: Nike Football Academy, Soweto. Image courtesy of Google Earth (2015) illustrated by author to indicate possible solutions to implement Placemaking.

The image above indicates possible improvements to the Nike Football Academy based on the criteria from the literature review to improve the Social, Economic and Physical impacts of the facility.

5.3 Chapter Conclusions

The section is an analysis and conclusion of both Precedent studies. Ideas that can inform the proposed architectural solution will be discussed.

The Nike Football Academy and OYDC Zambia are both Sports Plus facilities. As a result the sporting infrastructure is predominant over other spaces which is evident in the minimal provision for learning spaces. The aims of this research study are Plus Sport outcomes therefore more non sport spaces are required to address the needs of rural youth.

The physical impact of both these facilities on their surrounding contexts are minimal. This is due to the sites being separated from its context with hard non-permeable edges and having no visual or physical linkages with other key locations as recommended by Bargachi, et al (2010). The sports space should therefore be more permeable, have more points of access and linkages with key locations in its context.

The Nike Football academy has no revenue earning facilities; provides no economic opportunities or communal facilities for the community; has a small learning space which is not inclusive; and only one main sporting activity on site being soccer. Spatially this facility does not have much to offer to this research study. The architectural response to place; climate; and orientation with the soccer field creating for passive surveillance and usability is of importance in this precedent.

The Sporting provisions of the OYDC are suitable for adoption in this research study as they have been designed to an international standard and can accommodate for up to 5000 people (Paramasivan , 2012). The facility supports a community of approximately 100 000 people (OYDC, 2015) which is similar in size to Ndwedwe which has a population of 140 820 as of the 2011 population census (Statistics South Africa, 2014). There are 16 schools with an estimated 1500 – 2500 pupils each (OYDC Business plan, 2010) giving an approximate total of 40 000 pupils in the vicinity of the OYDC. Ndwedwe has 150 schools pupils with approximately 43083 pupils from Grade R to Grade 12 (KZN DOE, 2015). Revenue earning facilities have been provided with the lodge which has a conference facility, kitchen and dining spaces. More spaces are needed to support tourism such as a visitors centre. There

are only 4 classrooms to support learning for a maximum of 120 people at a time which is inadequate considering that the OYDC receives 1000 visitors on weekdays. Considering that the facility supports 17 sporting codes in addition to health awareness, education and skills development more office spaces are required. Fred Kent (2012) of PPS recommends that public parks and squares developed around major public destinations should host a broad range of activities that attend to community needs. The OYDC Zambia provides some communal facilities such as the library, restaurant and classrooms however more activities are required considering the size of the community.

The functions and activities from these precedents that can be considered for the proposed Sports Centre are team sporting activities being Soccer, Rugby, Hockey, Basketball, Netball, and Volleyball. For youth development supporting spaces for educational purposes such as classrooms, a computer room and a reference library are required.

In the next chapter primary observation of sports and youth development facilities will be conducted to identify more design guidelines.

CHAPTER 6: CASE STUDIES

This chapter focuses on primary research and the collection of original data. Local examples of facilities where Sport and Architecture have been used to develop disadvantaged youth were observed first hand and critically analysed against the theoretical framework of this research study. Plus Sport facilities were chosen to identify the functional and spatial requirements to support non-sporting outcomes such as improving education, skills development and creating economic opportunities.

6.1 CASE STUDY 1: Indigo Skate Camp



Figure 42: Indigo Skate Camp. Image courtesy of theskateboardarchives(2010). Professional skateboarder teaching rural youth on the “kidney bowl”.



Figure 43: Indigo Skate Camp. Image courtesy of theskateboardarchives(2010). The skateboard ramp is also used as a stage for traditional dance and music.

6.1.1 Project Background

Dallas Oberholzer, a local former pro skateboarder, inspired by discoveries on his travels to Canada and South America founded the Indigo Skate Camp in 2001 in the village of Isithumba a disadvantaged rural area in the Valley of a 1000 hills, Kwa Zulu Natal, South Africa. He sought to unite young people through skateboarding, mentoring and community development. The rural facility has grown over the years with contributions from private and corporate sponsors and currently also hosts a tourist ambassador program employing 35 youths from the surrounding village.

6.1.2 Justification as a Case Study

The Indigo Skate Camp is an example of a Plus Sport facility which uses the action sport of skateboarding to attract disadvantaged youth with the main focus being on engaging them in developmental activities in a rural context.

6.1.3 Site and Context

The facility is situated in the village of Isithumba, Kwa-Ximba, Valley of a 1000 Hills, Pinetown, South Africa. The context is distinctively rural in nature with most of the residences being the traditional Zulu rondavel. The area is rich in natural tourism assets.



Figure 44: Indigo Skate Camp site context. Image courtesy of Google Earth (2015) illustrated by author.

Access to the site is via the D1004 road which is of the R103 Old Main Road to Hillcrest. The site is located at 29°41'0.37"S, 30°42'7.86"E.

6.1.4 Project Objectives

The Indigo Skate Camp is the founding project of professional skateboarder Dallas Oberholzer who set out to develop sustainable skateboarding environments in the most unusual environments in order to include rural and vulnerable youths into the sport of skateboarding. The objectives of the skate camp are to bring about social change by engaging youth in personal development through the sport of skateboarding preventing drug and alcohol abuse.

6.1.5 Project Description

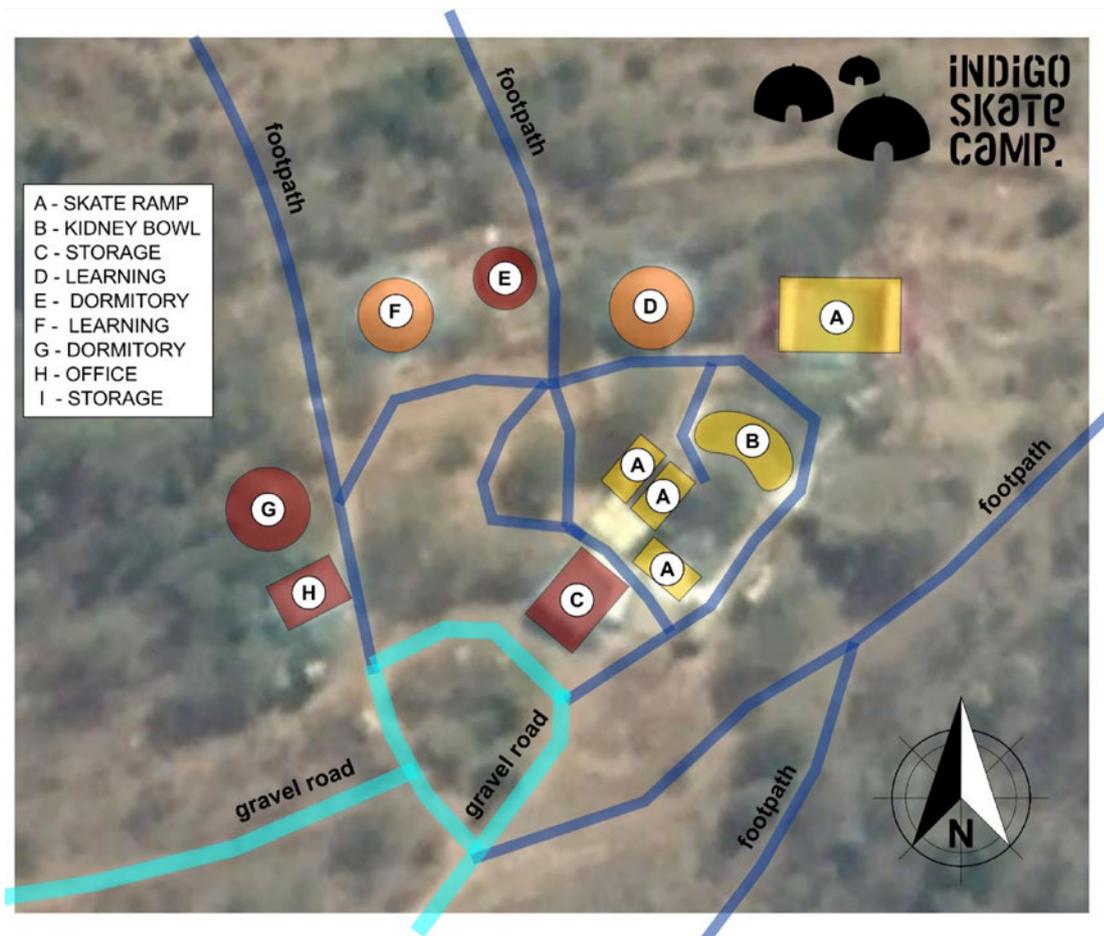


Figure 45: Indigo Skate Camp. Image courtesy of Google Earth (2015) illustrated by the author.

The site is accessed off the D1004 road via a 120m gravel road. There are currently 4 ramps and a “kidney bowl” which are used for skateboarding. Surrounding the camp are rondavels which are used for various activities from accommodation to training.

According to Maswakhe Msomi, the camp manager the camp operates 7 days a week. On weekdays the youth attend after school from 15h00 – 17h30. The program involves skateboarding lessons which are given by himself and the assistant Manager. Art, life skills and practical skills training are provided by volunteers (Msomi, 2015).



Figure 46: Indigo Skate Camp. Image courtesy of skateboardarchives(2010) Youth practicing on the Kidney Bowl



Figure 47: Indigo Skate Camp. Image courtesy of skateboardarchives(2010) Youth practicing on the Skate Ramp.

Youth from surrounding villages are employed as Tourism ambassadors promoting Cultural and Recreational Sports Tourism. For Cultural Tourism visits are arranged to traditional healers, the village headman, the traditional medicine man, and to witness traditional ceremonies which are held most weekends as the area is rich in culture. The camp has integrated Recreational Sports activities such as Mountain biking, Mountain climbing, Quad biking and Hiking with Ecological Tourism. Tourists are treated to Zulu hospitality of good food, story-telling and bush walks. The local community provide traditional meals to tourists and visitors.



Figure 48: Indigo Skate Camp. Image courtesy of Toit (2012) Youth entertaining tourists with traditional dance.



Figure 49: Indigo Skate Camp. Image courtesy of Bremen (2008). Local youth interacting with visiting German youth at the camp (bremen, 2008).

Youth camps are held for visiting youth from outside the community aged 9 to 18 hosted by Dallas Oberholzer, and a team of skateboarders. The youth learn skateboarding skills, nature skills with the wilderness guides, survival skills, sightseeing and exposure to African Culture. In addition local youth get to interact with these visitors.

The camp has created training manuals incorporating life skills. Talented skateboarders from Indigo Skate Camp are groomed to be instructors who take the program to neighbouring villages and provinces. This allows the movement to grow and guide more youths through the sport of skateboarding. (indigo, 2015) (Msomi, 2015) (Hlengwa, 2015)

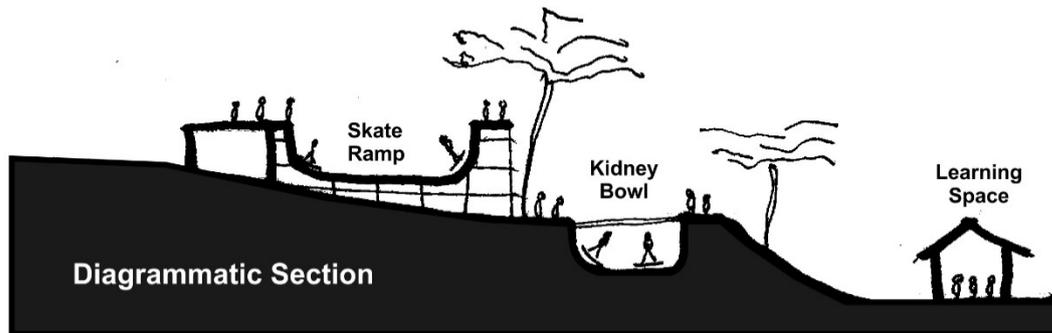


Figure 50: Diagrammatic section through site by author (2015).

6.1.6 Analysis and Presentation of Findings

Concepts & Theories

A multi-level process of Empowerment has been identified. The Skate Camp empowers the youth through skateboarding; teaching important life skills; and developing skills in art, music, dance, film and photography. Youth empower the organisation as camp leaders teaching developmental programs to surrounding villages and schools as well as tourism ambassadors earning revenue for the camp. The community is empowered by the youth and Skate Camp through tourism by providing fresh produce and traditional meals.

The facility falls short of achieving *Place making*. There are pedestrian paths providing *Access and Linkages* to the local villages however the program which is based mainly on skateboarding only operates from 14h30 to 17h30 daily. Skateboarding is more popular amongst males in the village (Msomi, 2015) limiting Socialization experiences on site. A wider range of *Uses and Activities* are required to engage youth from all genders and age groups including the community day and night. Traditional building techniques and local building materials are used to create a space that is unique and appealing achieving *Comfort and Image*. Visiting tourists are treated to traditional dance and music; and Skateboarding activities are viewed against the beauty of the 1000 hills overlooking the river below resulting in an experience that is truly unique and surreal achieving "Place".

Youth Development and Sport

PYD has been achieved. Skateboarding provides the structured physical activity in conjunction with life skills training. The shortfall in the program is that youth only interact with camp management and volunteers in activities. Parents, peers from the community and school teachers should also be involved to foster PYD.

Msomi (2015) advises that the youth develop self-awareness and confidence whilst learning how to skate on the ramp and kidney bowl. They enjoy the interaction with volunteers which gives them an opportunity to learn and practice English. Life skills results in them becoming better individuals.

The Economic Impact

The camp is not a financial burden to their poor parents as equipment is sponsored by companies and private individuals (Hlengwa, 2015). The community is paid for services rendered to the camp from preparing meals to maintenance. Tourism creates jobs in the preparation of traditional meals, arts and crafts (Msomi, 2015). The facility earns revenue from Tourism and Youth Camps.

The Physical Impact

The physical impact is currently minimal. The facility does not attract a lot of visitors to the facility due to having a short program and limited activities. The camp needs to attract a lot more visitors to act as a SAG (Greenberg & Hughes, 2011). This could be achieved by providing more uses and activities.

The Social Impact

Social Mobility is achieved amongst the youth in the program as they become more empowered individuals. The youth get to interact more with one another, volunteers, tourists and other skateboarders resulting in *Social inclusion* and increasing *Social capital*. Females and the community however do not reap the same benefits as there are no shared communal facilities or activities that they could partake in.

Architectural Response

Construction of the camp was a community effort and is composed of a collection of simple rondavels constructed using local labour and materials. The site appears to be a loose collection of buildings constructed randomly. Improvements can be made in the landscaping and external works to create a sense of order about the buildings in the camp. A space is needed to receive tourists and visitors to the site.



Figure 51: Indigo Skate Camp. Image by Author (2015). First view of the camp on entry. A space is needed to receive visitors to the site.



Figure 52: Indigo Skate Camp. Image by Author (2015). Typical Zulu Rondavels that can be found in the rural community. .



Figure 53: Indigo Skate Camp. Image by Author (2015). The lack of safety features is of concern. There are no seating areas for spectators.



Figure 54: Indigo Skate Camp. Image by Author (2015). Dormitory construction displays an approach to place.

The Rondavals used for training are on lower levels from the Sports Spaces. As they form part of developmental activities a closer relationship would have been preferred. The rondavels have small windows limiting natural lighting and ventilation. This limits passive surveillance of the site. Considering the terrain, an amphitheatre linking to the sports space could provide an opportunity to provide seating for spectators, teach more individuals and have passive surveillance of the activities.

6.1.7 Conclusions

The successful inclusion of Tourism at the facility supports the ideas of Hinch & Higham (2011) that Sports Tourism in peripheral locations can work based on their natural resources such as mountain climbing, rafting, and angling rather than access to key markets.

The skate camp is approximately 82km from King Shaka International Airport in a peripheral location successfully attracts tourists. Ndwedwe is much closer at 35km away. This supports the notion of Enterprise Ilembe, the economic development agency for the Ilhembe district to use Tourism for the economic upliftment of rural dwellers by capitalising on their tourism assets (enterprise iLembe, 2011). The inclusion of tourism space in the Sports Centre could stimulate the local economy and empower the youth.

The built form is very simple in nature and can only accommodate up to 50 youth at any given time. Spatially this facility is too small to address the needs of rural youth in Ndwedwe. Skateboarding, however has been proven to work in a rural context and will be included in the Sports Centre as one of the activities.

6.2 CASE STUDY 2: Lungisa Indlela Village (LIV)

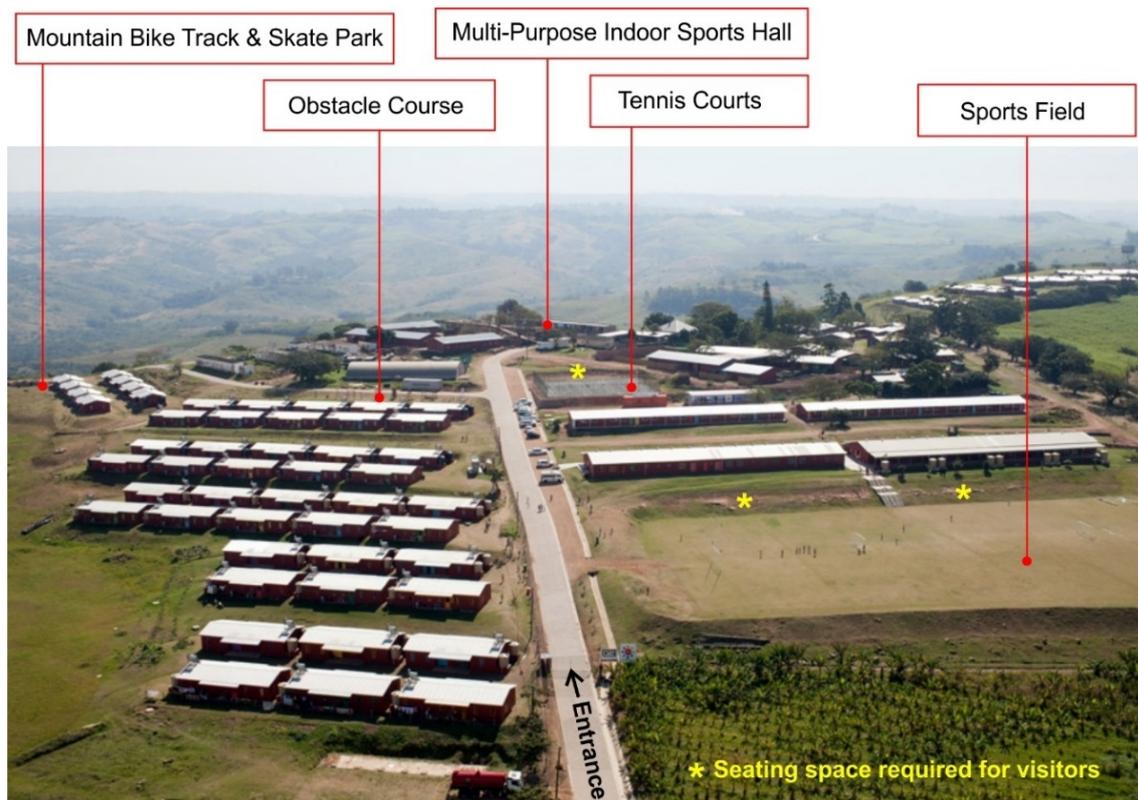


Figure 55: Lungisa Indlela Village. Image courtesy of LIV (2015). Ariel photo illustrated by author.

6.2.1 Project Background

Lungisa Indlela village (LIV) was founded by Tich Smith and his wife Joan Smith in 2009 to address the rising epidemic of vulnerable and orphaned children in South Africa as a result of poverty and the HIV Aids epidemic. They based LIV on the success of the Watoto villages in Uganda which was founded in 1994 to address similar issues. (LIV, 2015)

6.2.2 Justification as a Case Study

LIV is an example of a Plus Sports program. Sport is used to support a developmental program for the youth which aims to create future leaders who can make positive change in South Africa. The facility is situated in a rural community and caters for youth that come from vulnerable and disadvantaged communities most of which are rural.

6.2.3 Site and Context

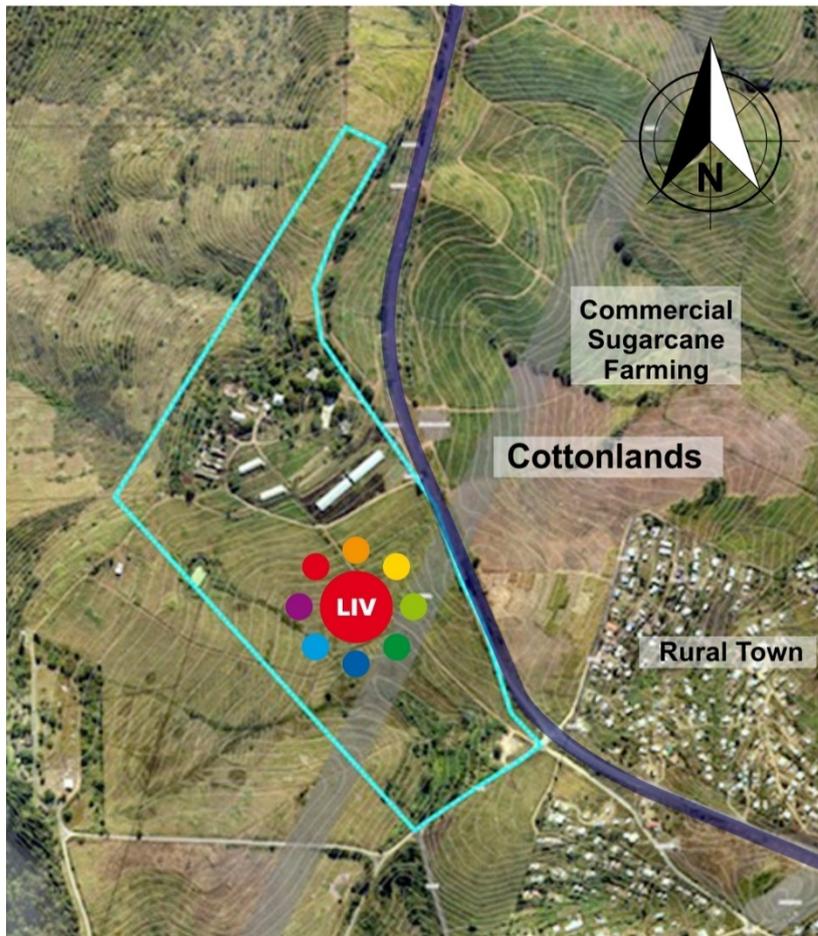


Figure 56: Lungisa Indlela Village. Image courtesy of LIV (2015) Ariel photo indicating the extent of LIV GPS coordinates: 29°34'50.37"S 31°2'53.31"E

LIV is situated in Cottonlands, a rural farming area adjacent to Hazelmere dam in Kwa Zulu Natal. The village is situated on the western outskirts of the rural community and is flanked by indigenous vegetation, the Hazelmere dam and Sugar Cane Farms across the road. Due to the steep terrain the development has been terraced along the slope

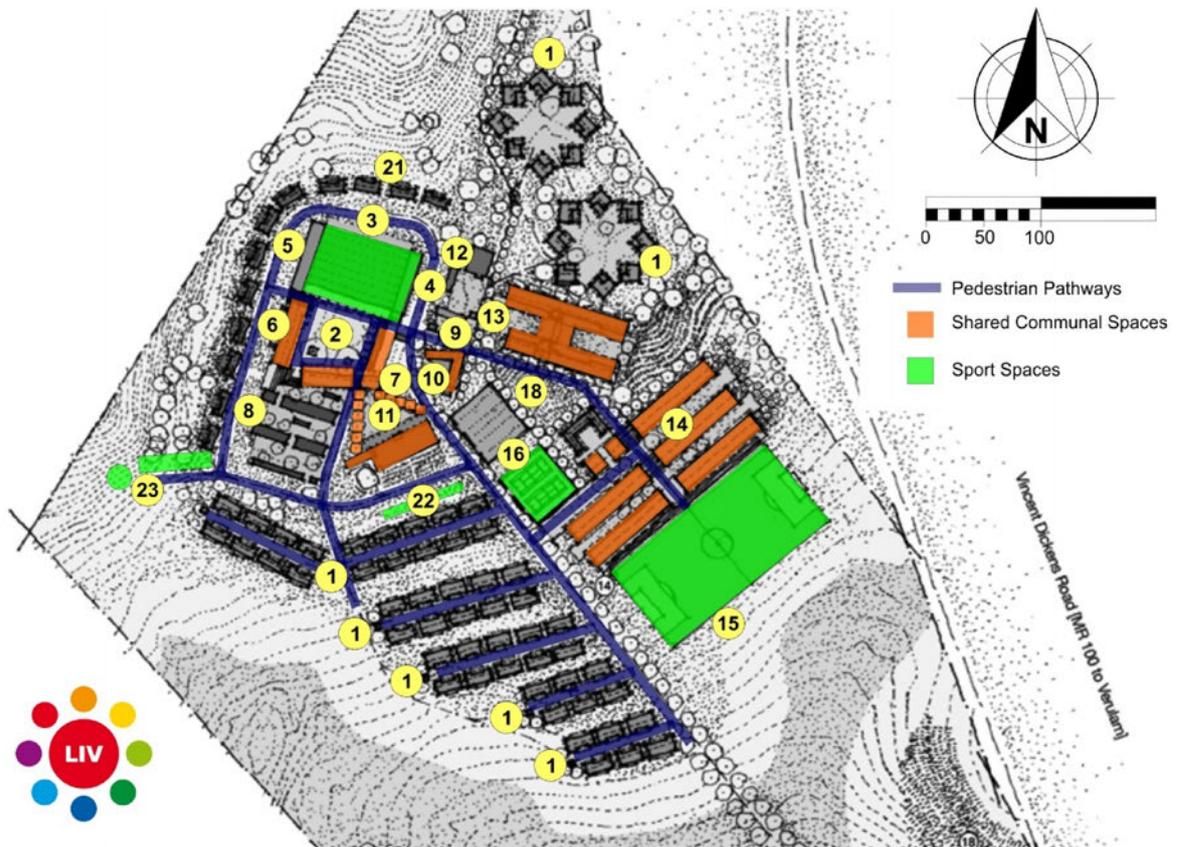
6.2.4 Project Objectives

LIV's main aim is to rescue a child, restore a life, raise a leader and release a star and achieves this by administering comprehensive residential care; promoting excellence in academic and practical skills; imparting family and biblical values; and integrity of character. LIV's founder Mr Tich Smith believes that equipping children with vital life skills and morals, they will develop into an influential generation putting into action changes that are positive in South Africa, Africa, and the world. (LIV, 2015)

6.2.5 Project Description

LIV currently has 150 homes that accommodate up to 1000 children. Each house has a foster mother identified by the local church network and trained by LIV that takes care of up to 8 children. Children from 0 - 12 years are taken into LIV. Once they turn 18, LIV will empower the youth to follow their dreams by means of further education; employment on

the village; or settling back with their families. The facility has schools on site to provide education for the youth from Grade R to 12.



- | | |
|-----------------------------------|--------------------------------------|
| ① HOUSING CLUSTERS | ⑫ MANAGER'S HOUSE |
| ② VILLAGE SQUARE | ⑬ EARLY CHILDHOOD DEVELOPMENT CENTRE |
| ③ HALL / INDOOR SPORTS CENTRE | ⑭ PRIMARY & SECONDARY SCHOOL |
| ④ PASTORAL SUPPORT | ⑮ JOHN SMIT SPORTS FIELD |
| ⑤ CENTRAL KITCHEN & STORES | ⑯ PARKING TENNIS COURTS |
| ⑥ CLINIC | ⑰ AGRICULTURAL PACKHOME & STORES |
| ⑦ ADMINISTRATION & SOCIAL WELFARE | ⑱ AGRICULTURE |
| ⑧ VOLUNTEER / GUEST ACCOMMODATION | ⑲ WETLAND |
| ⑨ SOCIAL WELFARE | ⑳ FACTORIES |
| ⑩ CRAFT PRODUCTION & RETAIL | ㉑ TEACHERS' HOUSES |
| ⑪ MARKET & MARKET SQUARE | ㉒ OBSTACLE COURSE |
| | ㉓ MOUNTAIN BIKE TRACK & SKATE PARK |

Figure 57: Lungisa Indlela Village. Image courtesy of LIV (2015) Site Layout with illustrations by Author

Accommodation is provided for teachers and volunteers on site. The facility currently provides employment opportunities for the local community by growing its own fresh produce and has agricultural pack homes and stores to support this activity. Factory space has been allocated for LIV Business which is also used for skills development and business

training. The Craft production and Market Square are currently in planning phase and will sell fresh produce and handmade items by the local community to the public. The facility has on site medical facilities and a Social Worker unit.



Figure 58 Lungisa Indlela Village. Image by author (2015). Sports Field. No facilities are provided for spectators.



Figure 59 Lungisa Indlela Village. Image by author (2015) Tennis Courts. No facilities are provided for spectators.



Figure 60: Lungisa Indlela Village. Image by author (2015). Obstacle course used for Early Childhood development.



Figure 61: Lungisa Indlela Village. Image by author (2015) Mountain bike track – Youth cannot be observed as the activity is in an isolated part of the site.

LIV has the following Sports facilities:

A Sports field for playing Soccer, Rugby, Hockey and Cricket. Currently one Sport Field is used and the Sports are rotated on different days. The Sports field is supported by change rooms and storage areas in the school block. This space currently lacks infrastructure such as shaded seated areas, public toilets and food kiosks.

A multipurpose indoor Sports Hall is used for sports such as Volleyball, Basketball, Indoor Soccer and Netball as well as Church services. The Hall is hired out for corporate team building events and private sports teams earning revenue for the facility.

There are two tennis court. Seating and shaded areas for spectators are needed to promote activity around this space.

An obstacle course and jungle gym for early childhood development. According to Chester (2015) the sports coach at LIV development of the core muscles at this age is important as it aids in better concentration improving schoolwork (Koyana, 2015)

The Mountain Bike Track and Skate Park has been constructed at the far end of the site which is not ideal as the activity is isolated and the youth cannot be passively observed. They should have been placed near the village square or housing clusters.



Figure 62: Lungisa Indlela Village. Image by author (2015). Village square with park and preservation of historical elements. .



Figure 63: Lungisa Indlela Village. Image by author (2015). Multipurpose indoor sports hall has permeable edge to public space.

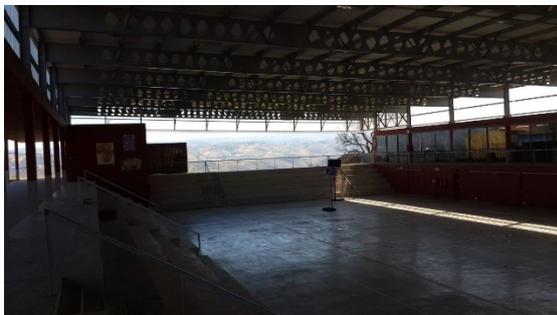


Figure 64: Lungisa Indlela Village. Image by author (2015). The indoor Sports Hall is naturally ventilated and lit.



Figure 65: Lungisa Indlela Village. Image courtesy of LIV (2015). Indoor Sports Hall- Ariel view of site indicating relationship of Indoor sports Hall and Village Square.

Development at the village is ongoing as funds are made available. Future plans for the village are: More Sports fields so that a variety of games can be played at the same time; an athletics track and facilities for other field sports such as javelin and long jump; a fitness gym and a gymnasium and an Olympic sized Swimming Pool.

6.2.6 Analysis and Presentation of Findings

Concepts and Theories

The elements of *Place making* have been identified in the Village Square making it a successful public space. Various pedestrian paths linking sports, communal and private spaces intersect at the village square providing *Access and Linkages*. This provides opportunities for interaction between the youth, teachers and peers improving *Socialization*. This space is bordered by a multi-purpose indoor Sports Hall which is used for Sport, church and assembly; a Hospital; and Social Worker unit providing a variety of *Uses and Activities*. *Place* as well as *Comfort and Image* is achieved by the use of a red ochre colour scheme which is the colour of the surrounding earth and the inclusion of an old water tank and brick kiln in the Village Square preserving the history of the site.

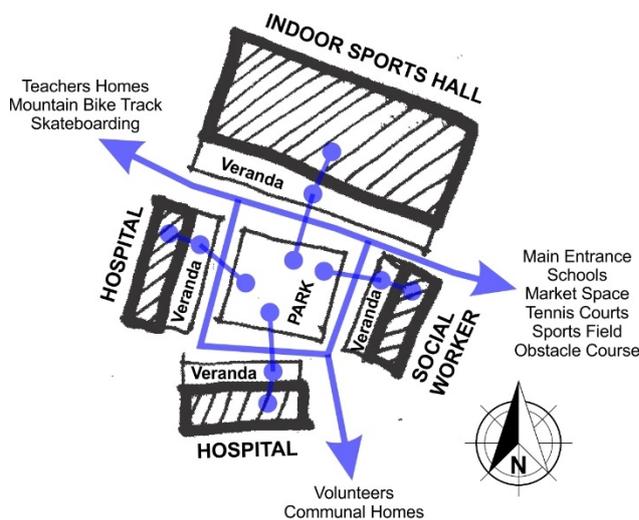


Figure 66: Lungisa Indlela Village - illustration of Village Square area by author (2015) showing elements of Place making.

The diagram above indicates Access and Linkages to key locations in the precinct. The verandas form permeable edges to the buildings and relate to human scale. The PARK is surrounded by a variety of Uses and Activities.

Empowerment

A multi-level process of empowerment has been identified. The youth are empowered by the developmental activities at LIV. The youth and LIV participate in regular community

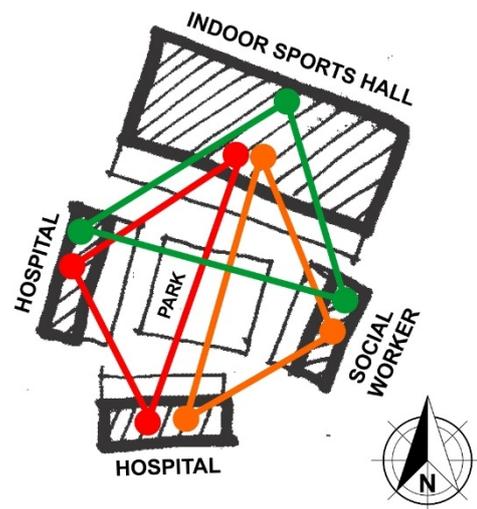


Figure 67: Lungisa Indlela Village - Illustration of Village Square area by author (2015) showing elements of Place making.

The diagram above indicates triangulation between the sports spaces and other facilities used by the community which promotes Socialization.

outreach programs. LIV empowers the community by assisting community volunteers with their studies; providing workshops to women on the weekend to learn skills; assisting Cottonlands school and crèche with food and clothing; assisting the community with subsistence farming; providing a business forum to assist local business people; and opening the clinic to the local community. (Mchunu, 2015) (Koyana, 2015)

Ecological Systems Theory

LIV is a self-contained system and contains all elements of this theory. Spatially, Home, School and Play are located on the same site. The activities of the youth are monitored by the Social Worker unit to optimize their development. In order to replicate this in the proposed Sports Centre activities that encourage participation of parents, teachers and peers are needed and could be co-ordinated by the Social Worker unit. According to (Koyana, 2015) the youth and staff play a variety of sport together ranging from tennis, soccer, rugby and cricket on Saturdays and Public holidays which aids in developing their relationship. Sport is therefore used to foster positive interactions between adults and youths.

Youth Development and Sport

The facility achieves PYD. Sporting activities are seamlessly integrated with education and other developmental activities. Chester Koyana (2015) the Sports Coach at LIV advises that the youth are currently taught Christianity prior to each game. LIV is currently conducting a program with a basketball association called Peace Players where coaches will be taught how to reach valuable life skills during the game.

Sport is used for developmental purposes in the following manner (Koyana, 2015) (Mchunu, 2015):

Basic ball skills are introduced to Youth aged 0 – 6 years for balancing and co-ordination. The jungle gym and obstacle course is used for training. This aids in developing their core muscles which improves their schoolwork by helping them concentrate better. Youth are introduced into the different sporting codes from ages 7 (grade 1) to 9 (grade 3). The youth participate fully in all Sporting codes from ages 10 (grade 4) to 16 (grade 10).

According to (Koyana, 2015) team sports are the best for youth development as they generate team ethos and Ubuntu. It is a great catalyst for children to work together and learn many valuable lessons such as time management, discipline and important life skills.

The importance of the Social Worker unit in Youth Development was identified. According to Sipho Nxumalo (2015) a social worker at LIV their unit plays a core function by facilitating holistic youth development. The Social worker unit co-ordinates a forum of multi-disciplinary professionals which includes the teacher, psychologist, social worker, doctor, I.T, physiotherapist and occupation therapist. The performance of the youth at home, school, sport and their health is monitored. He further advised that Sports is the best activity to produce therapy as children express emotions and vent their frustrations during play which the coach can then reflect to the Social Worker and Parents. The benefits of sports participation he advised was that it was a team activity that can enforce attitudes of teamwork and co-operation as well as provide positive role models. Sport develops the youth socially by teaching them a value system and adherence to the principles of the environment at the time. Supplementary teaching such as team talk is important leading to a well-coordinated individual. Sports teaches youth about winning and losing graciously which aids a child who is struggling at school. "I can't "becomes "I can". " I can" becomes "we can". (Nxumalo, 2015)

A focus group discussion was held with 10 youths at LIV to identify their perception to Sport and development (LIV Focus Group, 2015).

The group was interviewed to identify the type of activities that they participated in during their spare time, after school and on weekends. 6 youths participated in organized sports, 2 youths participated in cycling, and 2 youths played computer games. *Organized sports was identified as being the most amongst the youth.*

Sports participation has resulted in an improved in the academic performance of the youth. 10 youths agreed to more confidence, learning patience and discipline in addition to 4 youths added an improvement in schoolwork.

At Liv Sports participation has been integrated with the school syllabus.

10 youths agreed to 1.5 hours daily during school and on weekends after 14h00. 6 youths identified a need for additional recreational and play facilities.

The opportunity for Social interaction was identified as an important outcome for the youth during Sports participation. "10 youth agreed to the opportunity meet new people and travel, 4 youth added to keep fit and 2 youth added to get a sense of achievement."

The Economic Impact

The Sports facilities earn revenue. The Indoor Sports Hall, tennis courts and sports field are hired out for corporate team building, private games and activities. International Sports Teams visit the school, make use of the facilities and sponsor money and equipment to the program. (Koyana, 2015).

Provision has been made for a Market Space in the near future to take advantage of the pedestrian movement along the route which links all sporting activities providing economic opportunities for the community. This illustrates the idea of Bargachi et al (2010) by capitalising on the movement of people to patronize other facilities.

LIV Business provides a branding platform and assistance for local businesses and entrepreneurs.

The Social Impact

Sport forms an integral part of the development process supporting LIV's core vision. In addition, the youth are given assistance after completing school with tertiary education or skills development. This results in *Social Mobility*.

The focus group discussion identified that youth enjoyed the *Social Interaction* of sport the most. Sports facilities have been integrated with shared communal facilities via a pedestrian friendly network of paths. This promotes *Social Inclusion* as facilities are accessible by all and *Social Capital* is fostered through the interactions as a result of the design. More facilities are required for spectators and visitors to encourage people to linger in spaces longer which will be constructed as funding is provided.

The Physical Impact

LIV was separated with hard edges from its context with one controlled access point for the safety of the children and house mothers. This is due to the natural vegetation and farming space surrounding it for which there is no surveillance. The Sports facilities are situated within this facility containing any positive spill over effects to the surrounding context. The physical impact is therefore minimal.

Architectural Response

The Indoor Sports Hall including the Hospital and Social Worker unit respond to the Village Square with covered verandas providing a transition from indoor to outdoor space. The Indoor Sports Hall is very permeable being open to the Village Square allowing the activities to be observed by a wider audience. The architect has made good use of the topography by using the existing bank for raked seating. The Hall is open on 3 sides making the activities visible from many angles. All public areas are on one level accessed from the Village Square. The lower level which only needs to be accessed by the players is used as the sports space, storage and change room areas. The climatic response is good. The hall is naturally ventilated with openings on three sides. Clerestory windows allow for natural lighting reducing the need for artificial lighting. Hard wearing low maintenance finishes have been used. The floor has a hard wearing grano screed. The walls have been finished in a red oxide

to mimic the surrounding earth in a durable washable product. The building has a simple form which is not imposing and fits in with the surrounding domestic scale structures on site. Chester advises that the advantage of the Sports Hall is that it allows the flexibility to have sports at any time and all weather conditions (Koyana, 2015). The Indoor Sports Hall is used for multiple sports from indoor soccer, volleyball, basketball and netball as well as other activities such as church services and functions.

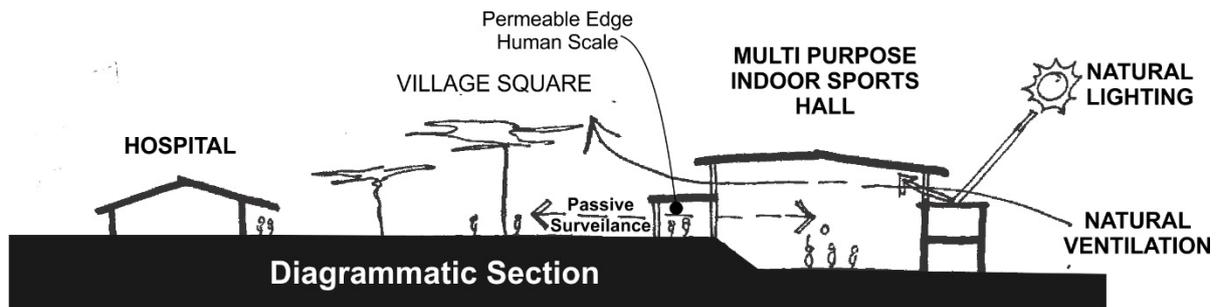


Figure 68: Lungisa Indlela Village. Illustration by author (2015) indicating relationship between the Multi-purpose Indoor Sports Hall with the Village Square.

During the focus group discussion the youth advised that if given the opportunity they would like to have a Gym, Cinema, Wi-Fi, Swimming Pool and games area.

6.2.7 Conclusions

The role that Social Workers could perform in Youth Development was identified in this case study. Due to the socio economic conditions in rural areas such a facility will be very useful in evaluating the youth psychologically and physically; generating a program for their holistic development and enabling positive interactions between parents, teachers and peers. The typology of the Multi-purpose Indoor Sports hall is very practical in a rural context as it can be used for a multitude of community services and not limited to Sport. The need for artificial lighting and ventilation is reduced due to the climatic response further reducing running costs.

LIV business supports entrepreneurship and teaches business skills to the surrounding community as well as providing a platform which new businesses can use to launch their products. This function will be useful to incorporate into the Sports Centre as it will address the needs of job creation and skills development in rural areas. Space has been allocated for a Fresh produce and Arts and Crafts market taking advantage of pedestrian movement along the main route to the Village Square. This supports the idea recommended by Fred

Kent to include Public Markets to create place and provide economic opportunities for the local people and should be included in the Sports Centre (PPS, 2012).

Spatially the facility is sufficient for the 1000 pupils on site. The OYDC Zambia also accommodates up to 1000 visitors on weekdays however has a lot more open courts. In terms of Sporting needs the OYDC will be used for reference as it relates to a community population similar to Ndwedwe. This case study has identified a number of new functions and activities that can be included into the Sports Centre in addition to Sport.

6.3 Chapter Conclusions

The section is an analysis and conclusion of both case studies. Ideas that can inform the proposed architectural solution will be discussed. In the previous chapter it was concluded that more spaces are needed to focus on non-sporting outcomes to address the needs of rural youth. As a result Plus Sport facilities were investigated.

The Indigo Skate Camp is a community based project accommodating up to 50 youth at a time in their programs. Though it is not a professional sports facility it was investigated to identify how the community and youth are involved in the organization in a rural context. It was identified that supporting roles and responsibilities need to be created for the youth and community in the Sports Centre for empowerment and that Tourism can be successful in a rural context for economic upliftment.

LIV is an orphanage that currently accommodates 1000 pupils from Grade R to Grade 12. The project was investigated to identify other support systems for Youth Development as it provides holistic care. The Social Worker unit to guide holistic development; factory space to support LIV business as well as skills development; multi-purpose indoor sports hall that can be used for functions other than sport; and Market space have been identified as support and development systems for the youth and community. Sport is used for development of youth of all ages and genders. Revenue earning facilities are the multi-purpose indoor sports hall and tennis courts. The Market space will also earn in revenue and provides economic opportunities for the local community.

The functions and activities that can be considered from both these examples in addition to Sport are: Tourism spaces; accommodation for volunteers and tourists; kitchen and dining facilities; classrooms and workshops; a market space and the architectural response of the multi-purpose indoor sports hall.

CHAPTER 7: DATA ANALYSIS & FINDINGS

This section will be a summary of information gathered during the interview of key informants based on criteria formulated from the literature review to identify new ideas and to develop a contextual approach to the research problem.

7.1 Data Analysis

Ecological Systems Theory

Buyiswa (2015) and Sindiswancube (2015) confirmed the use of the Social Worker unit to interact with parents and teachers to facilitate Youth Development. *This creates a Mesosystem improving communication between Home and School Microsystems.*

Buyiswa (2015), Sindiswancube (2015), Mandy (2015), Emanuel (2015), Wendy (2015) and John (2015) confirmed that programs to equip teachers and parents to be able to handle youth challenges will improve Youth Development. *Improves Exosystem by involving a setting not directly involving youth. Improves Chronosystem – Parallel development of other systems with the youth over time.*

Empowerment

Buyiswa (2015), Sindiswancube (2015) support compulsory civic duties that the youth can be involved in attending to needs in the rural community. *The youth and organization empower the community.* Buyiswa (2015) recommends the creation of Youth Clubs to take learnerships to outlying areas. *The organization is empowered by the participation of the youth.*

Balram (2015) and Van Heerden (2015) recommend involving the community in the project giving them a sense of ownership. *The community is empowered through the process of participation.*

Gumede (2015), Gwamandu (2015) suggest training the youth to become coaches and program leaders. *The organization is empowered through involvement of the youth in supporting roles.*

Kazee (2015) advised that most government projects have a function referred to as the NYS (National Youth Service) to train and empower youth; and EPWP (Expanded Public Works Program) to train and empower the community during the project. The status quo in rural areas must be followed which involved contacting the local traditional leader or chief as well as municipal councilor to advise them on the project and its objectives. They would also play a part in choosing who will be involved in the project. An idea is to start this process much earlier during design stage so that the community can contribute to the design by including services that the community needs.

Place Theory

Van Heerden (2015) recommends that local materials, labour, methods of construction, building forms and community colours be used. In their Vele Secondary School project local stone masons were used each with their own style adding to the uniqueness. Traditional building materials are vernacular requiring regular maintenance creating an opportunity for the community to re-connect with the building. The youth and community should be involved in the development of the project. At the Vele Secondary school the youth were given disposal cameras and asked to capture any forms and materials that they would like to incorporate into the school. These images were used to inform the design.

Local history

Mhlongo (2015) discussed important historical events in Ndwedwe which most of the youth and community are not aware of.

Johnstone Mfanafuthi (Johnny) Makhathini is regarded by the locals as a hero who was a key youth organizer in and around Durban and rural Kwa-zulu Natal during the liberation struggle for freedom.

The Bambathi Rebellion which started in mid1906 as a rebellion against the harsh policies against the Zulu people at the time is another historical event. Some of the battles between the Zulus and the Colonials were fought in rural locations in Ndwedwe.

Allowance should be made in the public space to pay homage to the history of the area. This can also be used to support Tourism.

Local culture and traditions

According to Mhlongo (2015) , the Nhlankakazi Mountains are steeped in local folklore however the art of storytelling is being slowly lost resulting in stories not being passed down to younger generations. Important local traditions are the reed dance in September and the annual Shembe pilgrimage to the Nhlankakazi Mountains where worshippers camp for two weeks at the mountain. *A space that can support festivity and storytelling needs to be considered.*

Ecology and Wildlife

According to Mhlongo (2015) Leopards have been seen in the Kwaloshe forests. The forests are also an important source of traditional medicines. *A traditional muti-market space could be created which will attend to a cultural need.*

Youth Development

Rural schools are lacking in specialised equipment and services required for the academic development of youth. Mandy (2015), Emanuel (2015), Wendy (2015) and John (2015) suggest providing facilities and training that rural schools are lacking such as computer skills, maths and science to give youth equal opportunities as urban youth. The Sports Centre should integrate specialized facilities that are lacking in rural schools. Buyiswa (2015), Gumede (2015), Gwamandu (2015) currently use behavioural programs prior to the game to teach life skills and support a closer link between learning spaces and sports spaces.

Spaces that cater for Career guidance and assistance with tertiary institutions; as well as skills development were identified. Buyiswa (2015) recommends the concept of a Youth Centre consisting of a library; career guidance; skills training, new business creation, and life skills training. Mandy (2015), Emanuel (2015), Wendy (2015) and John (2015) support the idea of a Youth Centre as rural youth require financial assistance with tertiary education and need guidance on career options. Buyiswa (2015) and Sindiswancube (2015) support the idea of a NYDA office which can assist youth with learner ships, business opportunities and job placements.

Spaces that support skills development and training were identified. Gumede (2015), Gwamandu (2015), Cibane (2015) and Mhlongo (2015) support the idea of skills training to assist youth to find employment or start their own business. The municipality currently provides training in a limited capacity due to a lack of a suitable venue. DSD engages with accredited training colleges as well as corporates to participate in development programs however require a suitable space (Buyiswa, 2015). Mhlongo (2015) advised that skills in Environmental Management, Construction and Tourism are rare skills needed in Ndwedwe.

To address social ills in rural community a Social Worker Unit was identified. Buyiswa (2015) and Sindiswancube (2015) supported the ideas of a Social Worker unit as most rural youth come from dysfunctional homes and require therapy as they are exposed to poverty, child abuse and violence. Mandy, Emanuel and John (2015) support the idea of a social worker unit as teachers are not equipped to deal with this issues. Gwamandu (2015), Buyiswa (2015), Sindiswancube (2015), Emanuel (2015) John (2015), and Wendy (2015), support the idea of a space to deal with subsistence abuse. Sindiswancube (2015) advises that youth are taking alcohol to school creating challenges for teachers.

Facilities for multiple codes of Sport are needed in order to identify and nurture sporting talent amongst rural youth Buyiswa (2015), Gumede (2015), Gwamandu (2015), Cibane (2015), Trevor (2015).

Mhlongo (2015) and Cibane (2015) support the notion that the Municipality provides an integrated support service to the youth and community by including all these services in a Sports Centre.

The Economic Impact of Sports Facilities

The Ilhembe district has been identified as a renewable energy hub and industries that support the green industry and renewable energies are needed (Mhlongo, 2015).

Sustainable technologies should be included into the Sports Centre.

Key informants were interviewed on the inclusions of Tourism at the Sports Centre. At the Indigo skate camp the youth participate as Tourism ambassadors which aids in their development as well as the community (indigo, 2015). Ndwedwe has a lot of tourism assets however there are no facilities to support the industry. A tourism facility is a good opportunity to engage the youth in a constructive activity as well as provide revenue to the Sports Facility. Tourism could provide a link for the Sports Centre to outlying areas. (Mazibuko, 2015). The municipality is currently developing a heritage route called the Johnny Makhitini Legacy project. The municipality does not have a tourism centre to support this route. (Mhlongo, 2015).

A conference facility was identified in the OYDC Zambia as well as LIV. Mazibuko (2015) supported the inclusion of a conference facility as Ndwedwe currently does not have one. The municipality has to book out of the area whenever they host a large function using municipal funds. The facility could be hired out earning revenue.

Due to a lack of recreational and leisure facilities in Ndwedwe the community have to travel out and spend their money elsewhere (Mazibuko, 2015).. A Sports Centre with recreational and leisure facilities could stimulate economic activity (Nguza, 2015). *This supports the idea of using the Sports Centre for the creation of city life used day and night attracting a mix of residential, commercial and dining spaces to the area (AMSCG, 2009).*

Mazibuko (2015) was questioned on the notion of including a Market Space in the precinct. He advised that the Municipality currently has cold storages for produce from local farmers and agreements with local supermarkets to be preferential suppliers. Gwamandu (2015) and Mhlongo (2015) indicated that agriculture is a large industry in Ndwedwe due to the fertile soil and supported the notion of including a fresh produce and crafts market within the Sports Precinct as this could provide economic opportunities for small farmers. Nguza (2015) recommends that provision be made for traditional meals rather than commercial food brands to give locals opportunities as well as create a unique environment.

The Social Impact of Sports Facilities

Gwamandu (2015) advises that there are no Sport and Leisure facilities in Ndwedwe for the youth. Gumede (2015) suggests that a Sports and Leisure precinct would create opportunities for the youth and community to interact in healthy activities. Sports can create local heroes and role models. *A Sports precinct can therefore promote Social Development by including sports and recreational facilities that can be used by the youth and community.*

The Physical Impact of Sports Facilities

Mazibuko (2015) has highlighted the lack of entertainment, accommodation and conference facilities. *According to Hinch & Higam (2011) Sport Spaces should be designed in coordination with entertainment, tourism and service sector interests as they complement the status of one another.* Nguza (2015) has noted that there is a lack of city life and entertainment precincts. *Sport facilities can attract a mixture of commercial, dining, retail and residential, spaces to the area resulting in the creation of city life day and night, AMSCG (2009).*

Kazee (2015) advised that Public buildings tend to have hard edges fenced off from its context to avoid vandalism and theft. Including trading spaces at key entry points could benefit the community. Providing accommodation that can be leased out as commercial or office space could also earn revenue for the state and provide passive surveillance. The Sports Centre could fulfill the needs of the Municipality through the application of the criteria identified in the literature review to achieve Economic and Physical impacts.

7.2 Conclusions

Data analysis of information provided by key informants has resulted in a cultural and contextual approach to the research problem.

The idea of incorporating Social Workers for Youth Development was identified at LIV. Ideas to support this were identified during fieldwork to address youth challenges and provide holistic development. The Social Worker unit has the ability to influence the systems of Ecological Systems Theory by interacting with home, school and community contexts. This function will be fundamental to Youth Development and should be included in the sports Centre. In addition they could aid with subsistence abuse and treat victims of child abuse.

Spaces such as classrooms, workshops, lecture theatres and media centres are required to bridge the gap from school to tertiary institutes and the working world. Youth that do get into tertiary institutions are not adequately prepared due to the poor learning environment in rural schools. The Sports Centre needs to provide facilities and tuition in areas that rural schools are lacking. Most rural youth cannot afford a tertiary education. In order for them to overcome poverty, become financially independent and contribute to the economy they need assistance in skills development and enterprise creation. Skills development is a very broad subject. The skills that are needed in Ndwedwe are in Environmental Management, Construction and Tourism. Supporting small business development is another important function identified during the literature review for youth development. The case study of LIV has identified that this function will assist the local community as well as youth on leaving school. In terms of enterprise creation Ilembe has been identified as a renewable energy hub and industries that support the green industry and renewable energies should be explored.

The idea of using a Market place for “Place making” as well as create economic opportunities for the community was discussed in Chapter 2 as well as in the case study of LIV. Agriculture is a big industry in Ndwedwe. The Kwaloshe forests are a huge source of traditional medicines. These ideas support the notion of including a market space in the public space surrounding the Sports Centre.

Ndwedwe is rich in natural tourism assets. It is a place of folklore and cultural traditions which needs to be rekindled. In addition the place been witness to events of historical importance. The municipality is creating a heritage route however have no venue to support this. The Sports Centre should therefore create a space to support Tourism capitalising on all

these ideas. Supporting infrastructure could include a visitor's centre, lodges, restaurants and dining facilities. A conference facility will benefit the Municipality by saving it from outsourcing as well as compliment the Sports Centre as a Tourist destination by having the ability to host large events.

The Sports Centre would need to function as a Plus Sports facility to develop youth in rural areas. The ideas from these key informants have been coded and summarised to guide the architectural response.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

This chapter summarises the findings of this research study. The conclusions made are presented with design guidelines for the Architectural solution to the research problem.

8.2 Conclusions

The section will summarise the data in response to the key questions at the start of this research study.

What are the current challenges that youth experience in rural areas?

High unemployment as a result of a lack of infrastructure and economic activity resulting in fewer jobs in rural areas (Buyiswa, Sindiswancube, Gwamandu, Mhlongo, 2015).

Due to poverty the youth cannot afford to travel and attend tertiary institutions to develop appropriate skills (Buyiswa, Gwamandu, Mhlongo, Mandy, Wendy, Emanuel, John, 2015).

Due to the impact of HIV Aids over 50% of households are child headed and do not qualify for a child grant to buy food resulting in malnutrition (Sindiswancube, 2015).

Due to poor parenting and a lack of awareness Teenage Pregnancy and HIV are high (Buyiswa, Gwamandu, 2015).

Education: High school drop off rate due to a poor family background, lack of parenting and youth having to travel long distances (Sindiswancube, Mandy, John, Wendy, Emanuel, 2015).

Rural schools lack resources and learning tools resulting in a poor learning environment which is not sufficient for the youth to find employment, become economically active or get into tertiary institutions (Sindiswancube, Buyiswa, Mandy, John, Wendy, Emanuel, 2015). According to Sindiswancube (2015) rural schools lack of infrastructure is being made worse

by increases in enrolment with less classrooms diminishing the learning experience. The parents do not get involved in the children's education.

Subsistence Abuse: Buyiswa (2015) advises that alcohol abuse is high amongst the 18 – 21 year age group due to bleak prospects and a lack of opportunities (Sindiswancube, 2015) (Gwamandu, 2015).

A lack of information and resources with regards to learning materials, tertiary institutions, career guidance and self-development (Sindiswancube, Buyiswa, Mandy, John, Wendy, Emanuel, 2015)

How can Sports be used as a catalyst to develop the Youth in poor rural towns in South Africa?

Sport will be an effective catalyst for rural youth as part of a Positive Youth Development strategy consisting of 3 main elements:

(i) Positive adult, peer, and community relationships: This is an example of making use of local resources and knowledge as well as ensuring that the application of youth development is consistent in all environments concerning the youth. At the same time parents, teachers and community leaders also need to be in a development program to improve their abilities in being able to guide the youth ensuring development also extends to other environments that the youth are immersed in.

(ii) Personal or life skills development: Parents, coaches, teachers, and program directors will develop positive life skills for every athlete based on their individual challenges and needs as they will have first-hand data on the individual. This research study has identified that Youth need support with career choice, tertiary placements, skills development and entrepreneurial activities. These spaces need to be integrated into the sporting program. There needs to be a functional and spatial relationship between the Sports activity and learning spaces.

(iii) A psychological climate focused on learning, autonomy support and mastery:

Sport was identified in the literature as being an excellent activity for Positive Youth Development (Weiss, Wiese-Bjornstal 2009 cited Clark et al 2009, Deakin et al 2005, Scanlin et al 2005, Martens et al 2008, Weis 2008, Wiese-Bjornstal 2009). Analysis of precedent and case studies has indicated that Sports has been successfully used for youth development. The shortcomings in the case and precedent studies were non-competitive physical activities for the community. As this solution will also be used as a public space for recreation and leisure, activities such as jogging and cycling tracks, outdoor gyms , bowls and miniature golf need to be considered.

What are the current strategies of Youth Development?

Youth development in South Africa is currently effected by the NYP (the presidency, 2009) (thepresidency, 2015) and has been criticised for not being effective in addressing youth challenges (hsrc, 2015) (Jobson, 2015). The NYP applies a broad based top down approach providing solutions that are not contextually appropriate without sufficient resources to execute their initiatives.

Positive Youth Development is strategy that emerged in the 1990's and provides a bottom up approach using resources within the community and forming broad based partnerships with schools, parents, community organisations and local businesses. As a result contextually appropriate solutions can be applied. Sport has been identified as an effective activity for Positive Youth Development (Coakley, 2011) (Holt, 2011). Evidence of these components were identified in the analysis of relevant precedent and case studies. This strategy will be applied to the Sports Centre.

How can Sport facilitate Youth Development?

Sports participation results in an improvement in physical fitness, health as well as self-esteem enhancing youth development. Nxumalo (2015) advises that the benefits of Sports participation are that it re-enforces attitudes of teamwork, co-operation as well as providing positive roles models. Koyana (2015) advises that team sports are the best for youth

development as they generate team ethos and Ubuntu providing a catalyst for youth to work together and learn valuable lessons in time management, discipline and life skills.

What is the relationship between Sport and Social Development in rural areas?

A Sports facility can promote *Social Capital* by providing a social hub for the youth and community to meet and network. Gwamandu (2015) advises that there are no Sport and Leisure facilities in Ndwedwe for the youth. Gumede (2015) suggests that a Sports and Leisure precinct would create opportunities for the youth and community to interact in healthy activities. The Sports Centre should integrate Sports and Entertainment facilities for the local community.

Architecturally this is achieved by planning for communal facilities in a public space that's permeable and well interconnected integrating community and social meeting spaces ensuring passive surveillance.

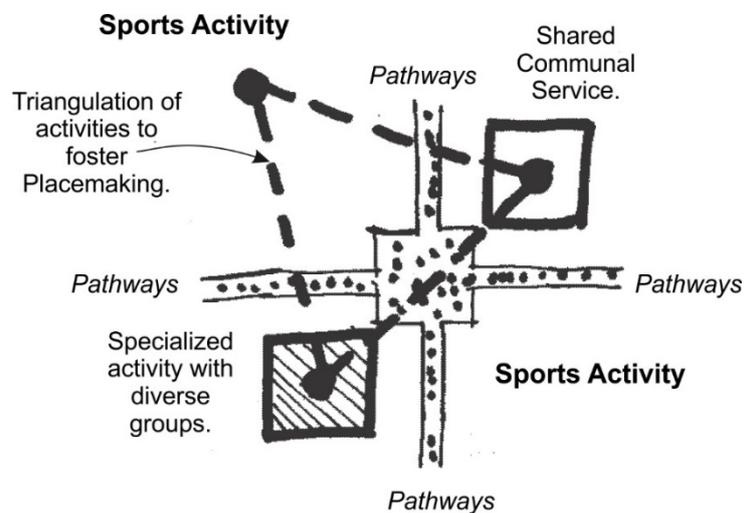


Figure 69: Illustration by author (2015) indicating conceptual arrangement of space to promote cohesion.

What is the relationship between Sport and Economic Development in rural areas?

Sports activities can attract people to a space making it feasible for surrounding developments to occur. In order to achieve this a variety of activities that the community requires needs to be included in addition to sporting facilities.

Economic opportunities can be created for the local community by allowing for market and trade spaces that are integrated with sporting activities within the public space.

Hosting major sports events could attract Event Sports Tourists earning revenue for the facility as well as having secondary economic spinoffs on the local community.

Recreational Sport Tourism can be used to link the Sports Centre to Tourist attractions in the area. This can create opportunities for the Sports Centre to earn revenue; empower the youth to become active participants in uplifting their community; as well as create economic opportunities for the community.

The Sports Centre also needs to be used when there are no Sporting Events . Commercial, recreational and dining facilities need to be considered. In addition the Sport Spaces should be multi-purpose allowing for flexibility in their usage.

A lodge and conference facility allow for hosting events, as well as accommodating visiting sports teams and sports tourists.

What is the relationship between Sports and the Built Environment?

After carefully analysing Precedent and Case Studies the OYDC Zambia was identified as having the most appropriate spatial needs in terms of Sporting codes as it serves a community and youth population similar in size to Ndwedwe.

- Most Sporting codes are open spaces with the exception of the Multi-Purpose Indoor Sports Hall, and Boxing Hall. Non-competitive sports and leisure activities are needed in order to be more inclusive. Ancillary buildings to the Sport Spaces are the change rooms and Administration offices.
- Infrastructure is needed for tourists and spectators to observe the game. This includes shaded seating areas, food kiosks and public toilets in close proximity.

- Shared communal facilities, learning and training spaces need to be integrated with sport spaces via a network of pedestrian paths to promote social cohesion.
- Sports spaces have been criticized for placelessness by many thinkers. The principles discussed in place theory and placemaking need to be incorporated into the design.
- Sports activities attract large numbers of people and can stimulate further development. To achieve this the Sports Spaces should be located in parts of the site where it could have links to key locations as well as stimulate development.

8.3 Conceptual Framework and Design Approach

This section will recommend design guidelines for the Architectural response, Site Selection and Urban Design Response.

8.3.1 Architectural Response

The Architectural response has been established by identifying design principles to the main themes in this research in order to satisfy the aims of this research study.

RESEARCH	FINDINGS	ARCHITECTURAL RESPONSE
Youth Challenges in Rural areas.	Lack of access to information for learning.	- A library, and learning space
	Lack of resources and tools in schools.	- Computer LAN, Laboratories.
	Lack of access to skills development opportunities.	- Workshops, Training Spaces and lecture hall.
	Teachers & Parents require development.	
	Lack of access to career and business opportunities.	- Career Guidance and Business space.
	Subsistence Abuse: Drug and Alcohol	- Social Worker
	Poor family background due to poverty.	- Social Worker

	A lack of awareness on various issues especially HIV.	- A space to address the youth and community – Amphitheatre, public square
	Child Abuse	- Social Worker
Youth Development in South Africa.	Not Successful. Top Down Approach. Solutions are not contextually appropriate. Deficit orientated programs.	- Activity spaces for parents, teacher and community peers. - A variety of activities in addition to sport that the youth could have positive interactions with adults such as Dance, Music and Art.
Current Strategies of Youth Development	Positive Youth Development: Bottom up approach. Community, peers and schools involved in programs = contextually appropriate. Holistic Development.	
Sport and Youth Development	Sports for all activities are recommended as they inclusive of a wider range of the community.	- Rambling – A park for leisure and walks. - Outdoor Activities - Jogging track, braai and picnic areas. - Casual Games - Chess, Put Put, Miniature Golf, table tennis, Darts, Pool. - Dance – Performance area/ stage - Play – Adventure Playground and Obstacle course - Skate ramps and kidney bowl - Mountain Bike track - Outdoor gym
Sport and Youth Development	Effective Youth Development Centres using Sports combine Team Sports with holistic development programs.	- Sports Spaces to be integrated with learning spaces.
	There are 150 schools and 43083 pupils from Grade R to Grade 12 in 2015. The population of Ndwedwe is 140 820. These statistics are similar to OYDC Zambia. The OYDC Zambia supports a community of approximately 100 000 people. There are approximately 40 000 school pupils.	- 1 x Olympic Swimming Pool - 1 x Athletics track - 1 x Hockey Pitch - 9 x open multi-purpose courts - 1 x Football field - 1 x Boxing Ring - 1 x Multi-Purpose Indoor Sports Hall - Change rooms
The Economic Impact of Sports Facilities	Sports Tourism is an effective mechanism of attracting revenue to the Sports Centre and Rural Economy.	- Accommodation for tourists, visitors (sports coaches) and volunteers.
	Ndwedwe is rich in ecological and cultural assets. It is therefore feasible to promote Sports Tourism, Ecological Tourism and Cultural Tourism.	- Visitors Centre - Restaurant and Dining facilities. - Recreational Sports – Storage for equipment, parking for tour buses,

	A conference facility will benefit the municipality as well hired out to earn revenue.	<p>offices for tour guides, storage equipment.</p> <ul style="list-style-type: none"> - Conference facility - Lecture Hall - Boardroom with video conferencing. - Media centre with business services. - Equipment room.
	Providing retail and office spaces could provide revenue for government projects as well as provide a platform for entrepreneurs to start their businesses.	<ul style="list-style-type: none"> - Retail and Commercial spaces need to be allowed for in the design and integrated into the public space to maximise exposure and accessibility.
The Physical Impact of Sports Facilities	Sports facilities are special activity generators, work well in entertainment precincts and can stimulate surrounding development.	<ul style="list-style-type: none"> - The sports centre must be designed as an attraction as part of a larger precinct. - Strong visual and physical links to key locations in the precinct. - A well designed public space with a variety of uses and activities to stimulate activity day and night. - Design of infrastructure to accommodate future development about sports space.
The Social Impact of Sports Facilities	Sports can promote Social Capital by providing a hub for the community to interact with each other	<ul style="list-style-type: none"> - Design spaces to promote interaction between the community and groups with different interests. - Shared communal facilities to be easily accessible and integrated with sports spaces. - Spaces for community organizations.
	Sports can promote Social Mobility	<ul style="list-style-type: none"> - Provide facilities for all professional sports to give youth opportunities to pursue being professional athletes.
	Sports can promote Social Inclusion.	<ul style="list-style-type: none"> - Planning for shared use of facilities. - Public space that caters for multiple users; integrated flexible community services and social meeting places.

		<ul style="list-style-type: none"> - Passive surveillance over the public space. Avoiding conflicts between user groups through user design. - A permeable design with interconnected pedestrian and cycle routes to key locations.
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8.3.2 Criteria for Site Selection

Based on the findings of this research study, the following criteria is recommended for the site selection process:

Accessibility: The site will need to be accessible to the youth and community of the rural district, the majority of which travel by public transport or walk. A centralised location that is accessible by pedestrians and on a main route used by public transport is recommended. The aim is to use the location of the Sports facility as a SAG to attract tourists as well as catalyse future development (Chapin, 2002). As a result the road infrastructure and site needs to be able to accommodate the influx of private vehicles, service and delivery vehicles. Provincial and Main roads are preferred to residential or gravel roads.

Connectivity – To foster place making the site needs to have Access and Linkages to nearby attractions and public transport. The site needs to have existing or potential pedestrian focused permeable connections in close proximity to important locations and public transport.

Urban Development – The Sports facility can be used as a SAG stimulating future development and will need to be designed taking into consideration future entertainment, tourism and service centre interests (Hinch&Higham,2011) as well as residential, commercial, retail and dining spaces (AMSCG, 2009). A site that can allow for all these considerations around the Sports Centre needs to be identified.

Topography - The primary element of a Sports Centre is a sports field. A relatively flat area with an overall dimension of approximately 177m x 95m is required. Sites with gentle

gradients are preferred as steep sites will require extensive earthworks increasing the project budget.

Services - Rural areas have a shortage of basic facilities such as water, electricity and sanitation. There should be sufficient services to support the proposed Sports Centre as well as future development.

8.3.3 Criteria for Urban Design Response

To satisfy the aims of this research study the Sports Centre needs to be able to stimulate future infrastructure development and the rural economy.

According to current literature Sports facilities can attract a critical mass of visitors to a space making future development feasible (Greenberg & Hughes, 2011). Sports facilities can stimulate urban development if a larger development strategy is applied. Consideration needs to be given in the urban planning for sites that could be developed for complimentary facilities being tourism, entertainment and service sector interests (Hinch&Higham,2011) as well as mixed use sites to support commercial, office and residential uses (AMSCG, 2009).

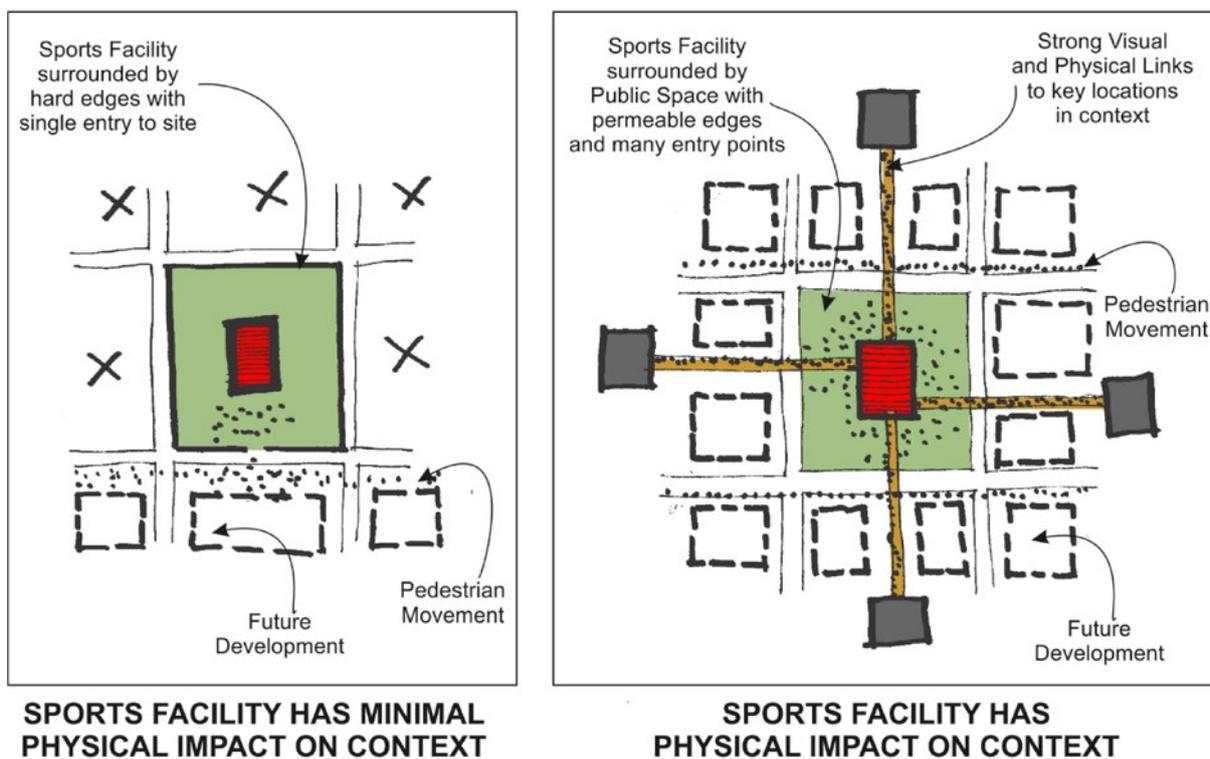


Figure 70: Illustration by author (2015) on the appropriate Urban Design response.

Analysis of precedent and case studies have identified that by enclosing the site with hard edges with only a single entry point will limit the SAG potential of the Sports facility by containing all of the activity. As a result the site should have permeable edges with many points of access allowing the activity to spill over to adjacent sites.

The Sports Centre needs to succeed as a Public Space to attract activity day and night 365 days a year. In order to do so the principles of place making need to be adopted. *Access and linkages* with key locations in the precinct are required. Strong visual and physical connections of sports facilities can also attract pedestrian movement to patronize other facilities en route stimulating development (Bargachi, et al., 2010). Developing a public park and square around the Sports Centre hosting a broad range of *Uses and Activities* attending to community needs can act as a multi-use destination attracting activity and improving social connections (PPS, 2012).

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10 APPENDIX

10.1 Sample interview Schedule



Interview Schedule

Interviewee		Date	
Department		Contact	

1 Opening

A. (Establish Rapport)

Hello. My name is **Sumesh Govender**. I am a Masters in Architecture candidate studying at the University of KwaZulu-Natal, Howard College campus, South Africa.

B. (Purpose)

I am conducting research on a project entitled:

“Sport as a Catalyst for Rural Youth Development: A proposed Sports Centre for Ndwedwe. “

The aim of the study is to investigate how the intervention of a Sporting Program through the Built Environment can alleviate the challenges. I would like to ask you questions regarding ideas and challenges your department has with constructing Sports Facilities in Rural Areas and the potential Youth Development strategies that may be developed around a Sporting Facilities.

C. (Motivation)

Through your participation, I hope to identify new ideas and principles which may be used to formulate an appropriate architectural solution to achieve the aims of this research.

D. (Time Line)

The interview should take about 30 minutes. Are you available to respond to some questions at this time?

2 Body

From my review of current literature the following issues with the Youth have been identified in rural towns in South Africa.

Main Problem:

1. The youth face constraint's to their personal development due to a lack of infrastructure and availability of services in rural areas.

Secondary Problems:

1. Social Deprivation and exclusion amongst the Youth?
2. A lack of infrastructure development and economic opportunities in rural towns.
- 3.

QUESTIONS

Youth Challenges

1. What are the current challenges of the youth in Ndwedwe with regards to their personal development?
2. What are the essential services that the youth need to develop themselves however are lacking in Ndwedwe?

Youth Development

3. What are the current mechanisms of Youth Development?
4. What type of services do you think will aid in Youth Development?

Sport and Youth Development

5. Is Sport used for developmental purposes? Explain
6. What type of Sporting facilities do the youth need in Ndwedwe? Economic Impact
7. What type of recreational facilities is there a need for in Ndwedwe?
8. What are the major industries in Ndwedwe?
9. What type of informal business activities are there in Ndwedwe?

Social Impact

10. What type of communal facilities do the youth and community need in Ndwedwe?

Physical Impact

11. What type of business and commercial services do the community need in Ndwedwe?
12. What type of services do you think will work well with the Sports Centre?

Empowerment

13. What type of activities can the youth and management of the sports centre undertake to uplift the local community?
14. What type of roles can the youth undertake to provide support to the Sports Centre?

Place Theory

15. Are there any places or events that are of ecological, cultural or historical importance in Ndwedwe?

General

16. Are there any other ideas and thoughts that you would like to share on this research?

Transition:

Thank you for your input into the research questions. Let me briefly summarize the information that I have recorded during our interview.

3 Closing

Researcher to read through the answers with the interviewee and confirm the answers given.

Thank you for affording me the time to conduct this interview.

Would it be ok for me to contact you should I have any queries or additional questions?

If you have any more ideas that you would like to contribute to the research please don't hesitate to contact me. A copy of the dissertation will be provided to you to include in your Library.



10.2 Sample Consent form

Built Environment and Development Studies

College of Humanities,

University of KwaZulu-Natal,

Howard College Campus,

Dear Participant

INFORMED CONSENT LETTER

My name is **Sumesh Govender**. I am a **Masters in Architecture candidate** studying at the **University of KwaZulu-Natal, Howard College campus**, South Africa.

I am conducting research on a project entitled: **Sport as a Catalyst for Rural Youth Development**. The aim of the study is “**To investigate how the intervention of a Sporting Program through the Built Environment can alleviate the challenges that the Youth face in their personal development in rural towns in South Africa.**”_Through your participation, I hope to identify new ideas and principles which may be used to formulate an appropriate architectural solution to achieve the aims of this research.

Please note that:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person, but reported only as a population member opinion.
- The interview may last for about 1 hour and may be split depending on your preference.

- Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only.
- Data will be stored in secure storage and destroyed after 5 years.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalized for taking such an action.
- The research aims at knowing the challenges of your community relating to resource scarcity, peoples' movement, and effects on peace.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:

	willing	Not willing
Audio equipment		
Photographic equipment		
Video equipment		

I can be contacted at - Email: sumeshgovender@gmail.com; Cell: 083 777 1569

My supervisor is **Mr Lawrence Ogunsanya** who is located at the **School of Built Environment and Development Studies, Howard College campus** of the University of KwaZulu-Natal.

Contact details - Email: Ogunsanya@ukzn.ac.za; Tel: **031 260 2050**

You may also contact the Research Office through:

P. Mohun

HSSREC Research Office,

Tel: 031 260 4557 E-mail: mohunp@ukzn.ac.za

Thank you for your contribution to this research.

Please write your address below if you wish to receive a copy of the research report.

.....

DECLARATION

I.....

(Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

.....

.....

10.3 Ethical Clearance



8 July 2015

Mr Sumesh Govender 961113080
School of Built Environment and Development Studies
Howard College Campus

Dear Mr Govender

Protocol reference number: HSS/0382/015M

Project title: Sport as a catalyst for Rural Youth Development: A proposed Sport Centre for Ndwedwe.

Full Approval – Expedited Application

In response to your application received on 20 April 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.



Dr Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: Dr M Mkhize, Dr Pearl & Mr L Ogunsunga
Cc Academic Leader Research: Dr C Sutherland
Cc School Administrator: Ms R Naicker

Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

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10.4 Gatekeepers Consent



education

Department:
Education
PROVINCE OF KWAZULU-NATAL

Enquiries: Nomangisi Ngubane

Tel: 033 392 1004

Ref.2/48/448

Mr S Govender
PO Box 26452
VERULAM
4340

Dear Mr Govender

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **"SPORTS AS A CATALYST FOR RURAL YOUTH DEVELOPMENT: A PROPOSED SPORTS CENTRE FOR NDWEDWE"**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 15 June 2015 to 31 July 2016.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Connie Kehologile at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report / dissertation / thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

Nombika Secondary School

Mabanya Secondary School

Head of Department: Education

Date: 19 June 2015

KWAZULU-NATAL DEPARTMENT OF EDUCATION

POSTAL: Private Bag X 9137, Pietermaritzburg, 3200, KwaZulu-Natal, Republic of South Africa ...dedicated to service and performance

PHYSICAL: 247 Burger Street, Anton Lembede House, Pietermaritzburg, 3201. Tel. 033 392 1004 beyond the call of duty

EMAIL ADDRESS: kehologile.connie@kzndoe.gov.za / Nomangisi.Ngubane@kzndoe.gov.za

CALL CENTRE: 0860 596 363; Fax: 033 392 1203 WEBSITE: WWW.kzndoe.gov.za



sport and recreation

Department:
Sport and Recreation
PROVINCE OF KWAZULU-NATAL

OFFICE OF THE HEAD OF
DEPARTMENT

Private Bag X 9141
PIETERMARITZBURG, 3200
Tel: (+2733) 897 9417
Fax: (+2733) 8979422

Date: 01 June 2015

To: University of KwaZulu-Natal Research Office: Ethics

mohunp@ukzn.ac.za

Cc: Sumesh Govender

sumeshgovender@gmail.com

Re: Gatekeepers Permission

I hereby give permission on behalf of the "Department of Sports and Recreation, Province of Kwa Zulu Natal for Sumesh Govender, a Masters student in the School of Built Environment and Development Studies to interview staff and use the data collected for his Masters dissertation titled "Sports as A Catalyst for Rural Youth Development: A proposed Sports Centre for Ndwedwe".

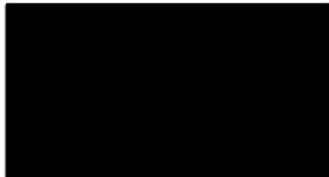
I understand that the dissertation will acknowledge the Department in the research; the department will be given an opportunity to review the information prior to submission of the research; consent forms will be provided prior to conducting any interviews; and a copy of the research will be provided to the department on completion.

Regards

Signature

Name

Position



J. BALMAN

GENERAL MANAGER



09 April 2015

To whom it may concern

Sumesh Govender, Student Number: 96 111 3080 a Masters in Architecture student in the School of Built Environment and Development Studies formally requests permission to interview staff in your institution/department and use the data collected on / use the data produced by your institution. He would like to use this data for his Masters dissertation entitled: "Sport as a catalyst for Rural Youth Development: A proposed Sports Centre for Ndwedwe ". The dissertation will acknowledge the institution/department and the information will be shared with the institution/department if requested.

Thank you and Kind regards

[Redacted Signature]

Lawrence

Supervisor

Department of Architecture

School of Built Environment and Development Studies, Howard College, University of Kwa Zulu Natal

Email: Ogunsanya@ukzn.ac.za

Tel: 031 260 2050

Cell: 071 427 2693

Permission to use Ndwedwe Municipality data Granted by:

Name : [Redacted] Cibane

Signature : [Redacted]

Date : 12/06/2015

NAME OF DEPARTMENT: Office of the Municipal Manager

NAME OF INSTITUTION: Ndwedwe Municipality



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

09 April 2015

To whom it may concern

Sumesh Govender, Student Number: 96 111 3080 a **Masters in Architecture** student in the School of Built Environment and Development Studies formally requests permission to interview staff in your institution/department and use the data collected on / use the data produced by your institution. He would like to use this data for his **Masters** dissertation entitled: **"Sport as a catalyst for Rural Youth Development: A proposed Sports Centre for Ndwedwe"**. The dissertation will acknowledge the institution/department and the information will be shared with the institution/department if requested.

Thank you and Kind regards



Lawrence Ogunsanya

Supervisor

Department of Architecture

School of Built Environment and Development Studies, Howard College, University of Kwa Zulu Natal

Email: Ogunsanya@ukzn.ac.za

Tel: 031 260 2050

Cell: 071 427 2693

Permission to use Indigo Skate Camp data Granted by:

Name: MAZWAKHE M. SOMI

Signature:

Date: 24 July 2015

NAME OF DEPARTMENT: Camp Manager

NAME OF INSTITUTION: Indigo Skate Camp



09 April 2015

To whom it may concern

Sumesh Govender, Student Number: 96 111 3080 a Masters in Architecture student in the School of Built Environment and Development Studies formally requests permission to interview staff in your institution/department and use the data collected on / use the data produced by your institution. He would like to use this data for his Masters dissertation entitled: "Sport as a catalyst for Rural Youth Development: A proposed Sports Centre for Ndwedwe ". The dissertation will acknowledge the institution/department and the information will be shared with the institution/department if requested.

Thank you and Kind regards

Lawrence Ogunsanya
Supervisor
Department of Architecture
School of Built Environment and Development Studies, Howard College, University of Kwa Zulu Natal
Email: Ogunsanya@ukzn.ac.za
Tel: 031 260 2050
Cell: 071 427 2693

Permission to use LIV Village data Granted by:

Name : Carita McNirie

Signature : [Redacted]

Date : 13 May 2015

NAME OF DEPARTMENT: Marketing

NAME OF INSTITUTION: L2V Village