

Assessment of food security-related projects of the Student Rag Community Service Potchefstroom Campus, North-West University

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SUMMARY

Food security is a global concern, experienced at a household level in South Africa (SA). The country experiences income inequality with a high unemployment rate. Many that are employed live under the international poverty line. The Potchefstroom area in the North-West Province of SA has a high unemployment rate. The Student Rag Community Service (SRCS) is a student driven non-profit organisation (NPO) of the North-West University (NWU) that is actively involved in socio-economic development of communities within this area. Some community programmes attempt to address food security, but it was uncertain which SRCS projects address such programmes. Unsustainable programmes may lead to greater food insecurity. Much funding has been used for SRCS projects and if unsustainable, funds were not optimally utilised. Archived documentation of implemented SRCS projects were not stored in a system that supported easy reference. Programmes were not assessed against clear sustainability indicators (SI), thus the sustainability thereof was uncertain. Thus, the research question was: Which of the SRCS projects addressed food security through their activities and programmes and were these projects sustainable?

The study aimed to assess the food security-related SRCS community projects to promote sustainable development. A case study was done to assess this in its real-life content. The mixed methods strategy was used through the three data collection phases. Further, a non-probability sampling method and the triangulation design were used to compare data. Firstly, the available archived documentation (September 2007 until August 2011) was compiled in an electronic database. Data from the most recent term were scrutinised (September 2010 until August 2011) and food security-related projects (21/48) were identified and those with feeding schemes (5/21). These projects mostly address the themes: food and nutrition, hygiene and infrastructure. Secondly, these projects were visited and community project members were interviewed to assess their experiences with the SRCS's project involvement and their opinions towards sustainability. Lastly, the SRCS project leaders' (n=20), of the previous term (September 2012 until August 2013), knowledge and understanding of project sustainability were assessed through a group administered questionnaire.

Qualitative data were thematically analysed and quantitative data were statistically analysed. Results indicated positive and negative expectations of community project members. Students indicated that community project members always or often participate and have sufficient skills and competences, but this was not indicated by community project members. Exposure or awareness was believed to increase project capacity. Available funds influenced the ownership and participation of community project members. Statistical analysis indicated a relationship between capacity building, empowerment and production of own food sources. Although some

community project members and SRCS project leaders were able to define sustainability and agreed upon SI, these were not implemented or measured at projects. Within the study, SI based on the livelihood assets from literature, were used to assess projects. Some activities created dependence without focusing on the development of assets. Study limitations included a language barrier between the SRCS and the community, and the accessibility of project leaders after the ending of the annual SRCS term. The study might improve current and innovative SRCS projects to overcome poverty and promote food security.

OPSOMMING

Voedselsekerheid is 'n globale bekommernis, veral op 'n huishoudelike vlak in Suid Afrika (SA). Die land ervaar inkomste ongelykheid met 'n hoë werkloosheid syfer. Heelwat werkers lewe onder die internasionale armoedelyn. Potchefstroom in die Noord-Wes provinsie van SA het 'n baie hoë werkloosheidssyfer. Die Studente Jool Gemeenskaps Diens (SJGD) is 'n student gedrewe nie-winsgewende organisasie (NWO) van die Noord-Wes Universiteit (NWU) wat aktief betrokke by die sosio-ekonomiese ontwikkeling van hierdie gemeenskap is. Sommige gemeenskapsprogramme poog om voedselsekerheid aan te spreek, maar dit is onseker watter SJGD projekte die programme aanspreek. Onvolhoubare programme lei tot verhoogte voedselonsekerheid. Heelwat fondse is al bestee aan SJGD projekte en wanneer dit onvolhoubaar is, word fondse nie optimaal aangewend nie. Die sisteem waarin argief dokumentasie van geïmplementeerde SJGD projekte gestoor was, kon nie maklik as verwysing gebruik word nie. Daar was nie duidelike volhoubare indikatore (VI) gebruik met die aanspreek van programme nie, dus was volhoubaarheid onseker. Daarom is die navorsingsvraag soos volg: Watter SJGD-projekte spreek voedselsekerheid deur hul aktiwiteite en programme aan en is hierdie projekte volhoubaar?

Die studie het gepoog om voedselsekerheid-verwante projekte van die SJGD te ondersoek om volhoubare ontwikkeling van gemeenskapsprojekte te bevorder. 'n Gevallestudie is uitgevoer om die werklikheid te assesser. Die gemengde metode strategie was gebruik met die data versameling uitgevoer in drie fases. Verder, is 'n nie-waarskynlike steekproefmetode en driehoekige ontwerp gebruik om data te vergelyk. Eerstens, is die beskikbare argief dokumentasie (September 2007 tot Augustus 2011) saamgestel in 'n elektroniese databasis. Data van die mees onlangste termyn is gebestudeer (September 2010 tot Augustus 2011) en voedselsekerheidsverwante projekte (21/48) was geïdentifiseer asook daardie projekte met voedingskemas (5/21). Hierdie projekte het meestal die volgende temas aangespreek: voedsel en voeding, higiëne en infrastruktuur. Tweedens, is die projekte besoek en gemeenskapslede is ondervra om sodoende hul ervarings rakende SJGD se projekbetrokkenheid te assesser asook hul opinies teenoor volhoubaarheid. Laastens is die SJGD projekteleiers (n=20), van die vorige termyn (September 2012 tot Augustus 2013), se kennis en verstaanbaarheid van projekvolhoubaarheid geassesseer deur 'n groep geadministreerde vrae.

Kwalitatiewe data is tematies en kwantitatiewe data is statisties geanaliseer. Resultate het positiewe en negatiewe verwagtinge van gemeenskapslede aangedui. Studente het aangedui dat gemeenskapslede altyd of gereeld deelneem en dat hul voldoende vaardighede en bekwaamhede het, maar dit was nie aangedui deur die gemeenskapslede nie. Daar word geglo dat blootstelling en bewusmaking projekkapasiteit sal verhoog. Eienaarskap en deelname was

afhanklik van beskikbare fondse. Die statistiese analise het 'n verhouding tussen kapasiteitbou, bemagtiging en produksie van eie voedselbronne aangedui. Alhoewel sekere gemeenskapslede en projekteleiers volhoubaarheid kon definieer en op VI besluit, is hierdie nie geïmplementeer of gemeet by projekte nie. In hierdie studie, is VI gebruik wat gebaseer is op die lewensvatbare bates vanaf literatuur, om projekte te assesser. Sommige aktiwiteite het afhanklikheid geskep sonder om op die ontwikkeling van bates te fokus. Tekortkominge van die studie het onderandere 'n taalgrens tussen SJGD en die gemeenskap, en die toeganklikheid van projekteleiers aan die einde van die jaarlikse SJGD termyn ingesluit. Die studie sal moontlik huidige en innoverende SJGD projekte verbeter om armoede te oorkom en voedselsekerheid te bevorder.

KEYWORDS

Community projects

Sustainable development

Sustainability indicators

Food security

Vegetable gardens

Community participation

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LIST OF ABBREVIATIONS

ASC	Academy of Sustainable Communities
AUTHeR	African Unit for Transdisciplinary Health Research
CE	Community Engagement
CYD	Child and Youth Development
DHET	Department of Higher Education and Training
HREC	Health Research Ethics Committee
ECD	Early Childhood Development
HEI	Higher Education Institutions
IDP	Integrated Development Plan
IE	Institutional Ethnography
IFSS	Integrated Food Security Strategy
MDGs	Millennium Development Goals
MOU	Memorandum of Understanding
NPO	Non-profit Organisation
NSNP	National School Nutrition Programme
NWU	North-West University
OP	Outreach programme
SGB	School Government Body
SD	Sustainable Development
SI	Sustainability Indicators
SRCS	Student Rag Community Service
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
U	Unidentified
VA	Vulnerable Adults

CONCEPT CLARIFICATION

The following section clarifies several concepts used within this study that are essential to understand. Concepts are described as used within the Student Rag Community Service (SRCS) organisation. The following concepts were described and clarified:

Community engagement: Interaction and involvement of university students within poverty stricken communities through programmes and activities carried out at projects.

Community project members: Teachers, volunteers, management and caretakers involved at community projects (includes the contact person).

Community projects: Identified underprivileged organisations such as schools, day care and disability centres, and old-aged homes in the surrounding and township area of Potchefstroom.

Community contact person: Community project members identify a community member, who serves as a project representative and mediator who communicates actively and regularly with the SRCS. All project visits are arranged and communicated through this person.

Needs assessment: Projects' needs are determined through a project visitation where discussions are held with community project members, subject specialists (includes SRCS consultants and researchers) and leaders (management) from the SRCS. Identified needs are used to develop programmes and activities that will be carried out within the SRCS term.

Process report: The document compiled by the SRCS project leader (student) after the implementation of an activity at the community project. It outlines the process followed when the activity was conducted and is used to reflect on and evaluate the activity.

Programmes: Plans with set aims and objectives based on the needs identified through the project needs assessment. There are usually three programmes with different focus areas.

Project leaders: The SRCS student representatives, usually student hostel leaders or potential leaders previously involved in community projects.

Project target group: The groups of children and/or elderly people at the projects with which the SRCS work.

SRCS term: SRCS projects run over two years from September until August of the next year. Archive documentation includes interim reports and final project portfolios at the end of each term.

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND MOTIVATION

1.1.1 Background

Food security is a global concern, but also an issue for South Africa. Although, the country's production capacity made it food secure at a national level, some households continue to experience food insecurity due to income inequalities (Altman *et al.*, 2009a:345). According to Koch (2011), 14 percent of the population are vulnerable to food insecurity and 25 per cent of children six years and under are stunted. High food prices are a constant challenge experienced in South Africa (McDonald, 2010:12; Ruysenaar, 2013:219-249) and contribute to food insecurity and food emergencies (Taylor, 2013:761). Although, high food prices affect all South Africans, it predominantly affects the urban population more than the rural (Taylor, 2013:761) due to the upward trend in urbanisation (Koch, 2011). Despite the area, low income consumers tend to spend most of their income on food.

The Tlokwe City Council (2010) indicated in their Integrated Development Plan (IDP) that Potchefstroom has a high rate of unemployment. Statistics South Africa (2013) indicated some employed individuals are still living below the international poverty line. Hendricks (2014) indicated that social grants have an impact in reducing poverty and hunger among households, but social grants do not alleviate poverty. In 2011 about 15 million people in the country received social grants against 3.9 million in 2001 (Statistics South Africa, 2013). According to Go *et al.* (2009:1), the rate of poverty increases more rapidly than the rate of employment opportunities, leading to inadequacies in dealing with the unemployment problem. Many employment opportunities have been created, but these are not sufficient to meet the demand (Statistics South Africa, 2013).

Globally, many community engagement projects have been implemented. In South Africa community engagement (CE) has been formalised as an important focus area of Higher Education Institutions (HEI) (Akpan, *et al.* 2012:1; Maistry & Thakrar, 2012:59). Researchers and students' involvement contribute to the socio-economic development of communities and promotes their social and civic responsibility. The Student Rag Community Service (SRCS) is a student driven non-profit organisation (NPO) of the North-West University (NWU), Potchefstroom, South Africa, that has been actively involved in community projects since 1981 (Scheppel, 2011). Many funds have been invested in community projects over years. This study focused on the SRCS projects located in the township and informal areas surrounding Potchefstroom. These communities have high incidences of unemployment and suffer from poverty. Poverty is associated with food insecurity and is seen as a major cause thereof

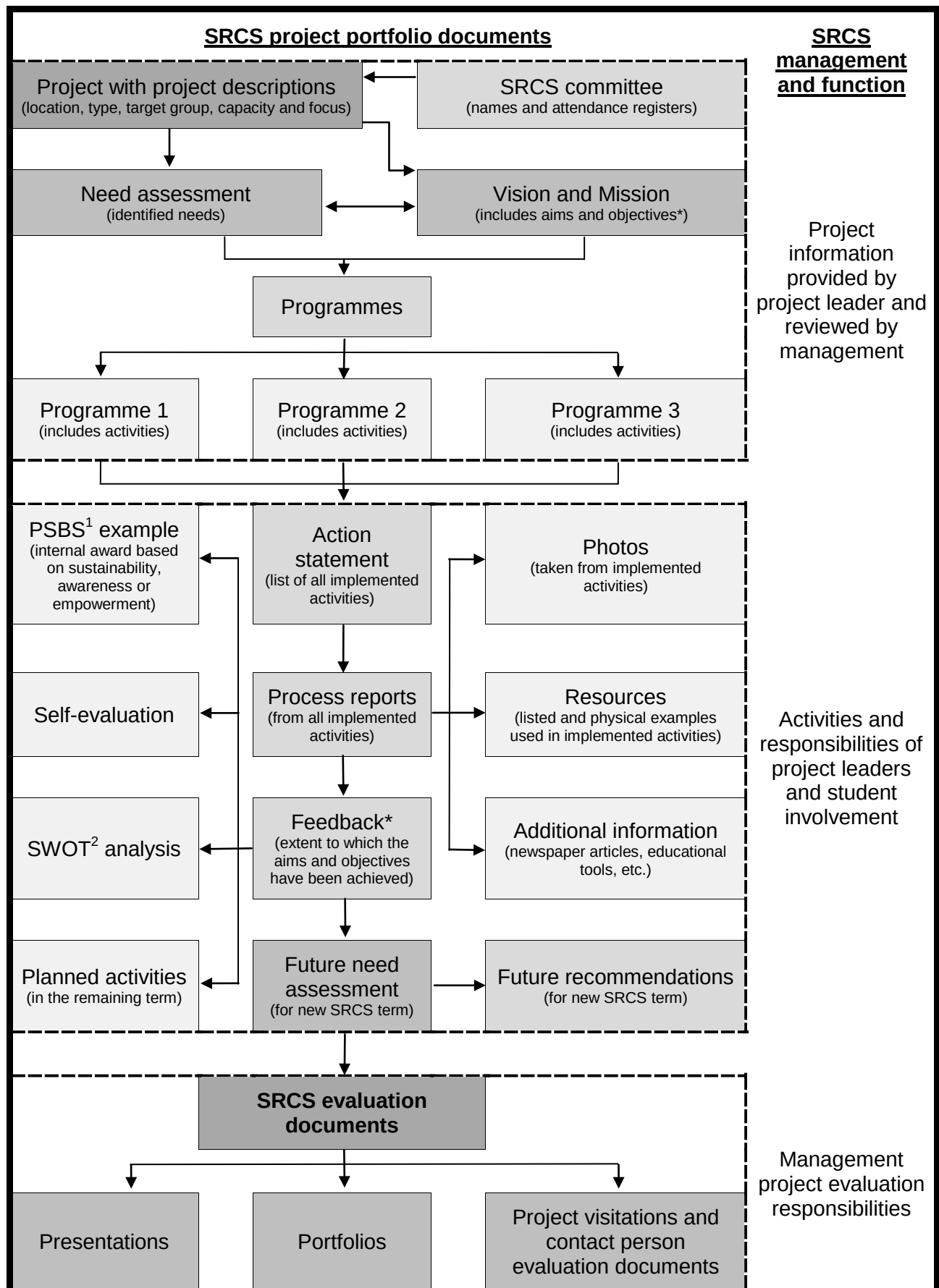
(Du Toit; 2011). Thus the focus of food security-related community programmes implemented by the SRCS.

Students involved in the SRCS activities are enthusiastic, creative in the planning and implementation of projects, and the acceptance and support of community project members has resulted in a growing organisation (Scheppel, 2011). The purpose of the SRCS is to give hope and inspire change within the community (Weyers & Herbst, 2010:5). The mission of the SRCS includes:

- Establishing and encouraging hope through the identification of the communities' needs.
- To follow a universal vision by all the involved projects.
- To obtain and maintain sustainable changes in the community.
- To establish change in order to create opportunities.
- To encourage volunteer work.

The SRCS's focus is mainly on poverty, focusing on low-income community project members (Weyers & Herbst, 2010:6). Further focus is drawn to the three SRCS pillars namely sustainability, empowerment, and awareness of the community projects in the evaluation thereof, to promote "self-help" in the community (Weyers & Herbst, 2010:6). The target groups include children, adolescents and vulnerable adults such as older people; women; individuals with HIV and Aids; and individuals with disabilities. Projects include programmes and activities at a variety of day care centres and crèches; schools; shelters; old aged homes; and contact projects.

Each SRCS project has a project leader and a supporting committee selected from students who are community engagement volunteers. These volunteers mostly represent student hostels and their involvement in community engagement may contribute to their hostel participation marks. Yearly, at the beginning of a student council term, new project leaders and committees are allocated to the ongoing or new projects. Thereafter, a needs assessment is done at each project together with the SRCS project leader, social workers and community project members (usually includes the contact person). The SRCS's needs assessment implies a project visit, discussions and observations. These are further used to develop project aims and objectives, and programmes to ensure that needs are attended to and fulfilled (Figure 1.1).



¹Psychosocial Behavioural Sciences; ²Strengths, Weaknesses, Opportunities and Threats

Figure 1.1 Schematic operational explanation of the Student Rage Community Service (SRCS) portfolio (September 2010 until August 2011)

CHAPTER 1: INTRODUCTION

Developed programmes are evaluated by the SRCS consultants who are all social workers. Activities are planned based on the programmes and after the implementation of each activity feedback is given to the SRCS through a process report. This report is used by the project leader to reflect on the implemented activity and by the consultants to give input throughout the term. After each term, project leaders are also required to complete a project portfolio which mostly consists of basic project information, programmes and process reports, feedback and self evaluations (Figure 1.1). This information is used to evaluate the overall performance of the project and for record keeping purposes.

These evaluations are done by SRCS members and subject specialists in the field of social services. Detailed record keeping of yearly reports by the project leaders ensure continuity. In order to ensure continuation of knowledge transfer, archives and databases must be kept for future reference (Ruuska & Vartiainen, 2005:374). Annual portfolios and evaluations of projects are documented and stored in the Institutional Archive and Museum (NWU).

1.1.2 Motivation

South Africa is food secure at a national level, but still experiences household food insecurity as a result of poverty. The country aims to halve poverty between 2004 and 2014 through the Integrated Food Security Strategy (IFSS), aligned with the United Nations Millennium Development Goals (MDGs) by 2015, which aims to eliminate hunger, malnutrition and food insecurity among low-income households (Jacobs, 2009:410; Koch, 2011). Community project members that suffer from household food insecurity suffer from malnutrition as their livelihoods and well-being are restricted by the micronutrient deficiencies and other allied factors that degrade their health, particularly following the development of conditions such as obesity and overweight (McDonald, 2010:153). Alternately, poor ingestion of healthy food results in under nutrition (Oldewage-Theron *et al.*, 2006:802), making community project members nutrition insecure which have further consequences.

Households can obtain access to food in several manners based on the available community resources (Kuzwayo, 2008:171). Resources may include livestock, household or small-scale agricultural land for vegetable garden development, school feeding schemes and soup kitchens, and supermarkets and street vendors. Some of these resources are initiated through community projects. It is important that community project members have the knowledge to sustain available resources and the safe keeping of food (Kuzwayo, 2008:171). This may also include the knowledge, skills and competences of food preparation to prepare safe and nutritious foods.

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Vegetable gardens may address food security as own food sources can be produced and the micronutrient intake of the community project members might increase. According to Altman *et al.* (2009a:345), vegetable gardens may also lead to income generating projects. Employment opportunities through entrepreneurship address food security as household income increases. However, unsuccessful and unsustainable vegetable garden projects may lead the household to greater food insecurity in the future (McDonald, 2010:150). Furthermore, when such agricultural activities become meaningless and problematic, it will be deserted (Faber *et al.*, 2011:23).

The concern arises that CE programmes and activities are not assessed against clear indicators to monitor the success of the projects (Pienaar-Steyn, 2012:41). Although the SRCS have completed many projects in the past, of which include food security-related activities or programmes, it is uncertain which SRCS projects address food security and whether they are sustainable. When new project leaders are allocated to community projects, after each student council term, they are often unaware of previous years' activities. This may result in programme unsustainability when the group separates (Ruuska & Vartiainen, 2005:374). The unawareness may be a result from SRCS archive documentation that cannot be used as easy reference.

Several surveys have already focused on food security in South Africa. However, there appears to be a gap in the knowledge relating to the sustainability of food security-related community projects, especially in Potchefstroom surrounding rural and township areas, where the SRCS community projects are located. The enormous need occurs for more localised studies to interpret the cause and implications of household food insecurity within different contexts and at different levels (Altman *et al.* 2009b).

Therefore, there was a need to assess the project activities and programmes done by the SRCS, especially those related to food security which may improve current projects and initiate innovative developments. This assessment is in line with the vision of the SRCS: it is based on community needs; it would assist food security-related programmes to work towards a universal vision, and the outcomes would lead to sustainable changes from which opportunities may emerge.

1.2 PROBLEM STATEMENT

Food security is a major concern globally and in South Africa, particularly poverty-stricken households and leads to community project members suffering from malnutrition. This includes the community in the rural and township area surrounding Potchefstroom where the SRCS community projects are located. It is important to determine on which food resources projects

rely and if community project members have the knowledge to sustain these resources. When food security-related activities and programmes are sustainable it may address food security, if not it may lead to greater food insecurity for community project members. Over the years funds have been invested in community projects by the SRCS, but the sustainability of the projects has not been measured with definite indicators and it is uncertain which projects address food security and if these are sustainable. If projects are not sufficiently carried over between the SRCS terms, due to the difficulty to access previous terms archived data, knowledge may be lost which may lead to unsustainable projects and funds may be wasted. Funding may also be lost in the future when funders are not assured of the success and sustainability of the projects. The need for localised studies indicates the research gap relating to the assessment of food security-related activities and programmes within community projects, especially the SRCS projects. Thus the research question for this study is: Which of the SRCS projects addressed food security through their activities and programmes and were these projects sustainable?

1.3 AIM AND OBJECTIVES

1.3.1 Aim

The aim of the study was to assess the food security-related projects of the Student Rag Community Service Potchefstroom, North-West University to promote sustainable development of such community projects.

1.3.2 Objectives

Phase one

1. Scrutinise available SRCS projects' documentation stored in the Institutional Archive and Museum (NWU) from the past four terms (five years), September 2007 until August 2011, by compiling an electronic database of the projects.
2. To identify the community projects which address food security in their programmes and/or activities by identifying themes with further identification of projects with feeding schemes for assessment.

Phase two

3. To assess the community project members', from the food security-related projects with feeding schemes, experiences with the involvement of the SRCS at their projects by interviewing them.
4. To assess the community project members', from the food security-related projects with feeding schemes, opinions towards sustainability by interviewing them.

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Phase three

5. To assess the SRCS project leaders' knowledge and understanding of project sustainability, of the projects they were involved in, through conducting a group administered questionnaire.

1.4 STUDY FRAMEWORK

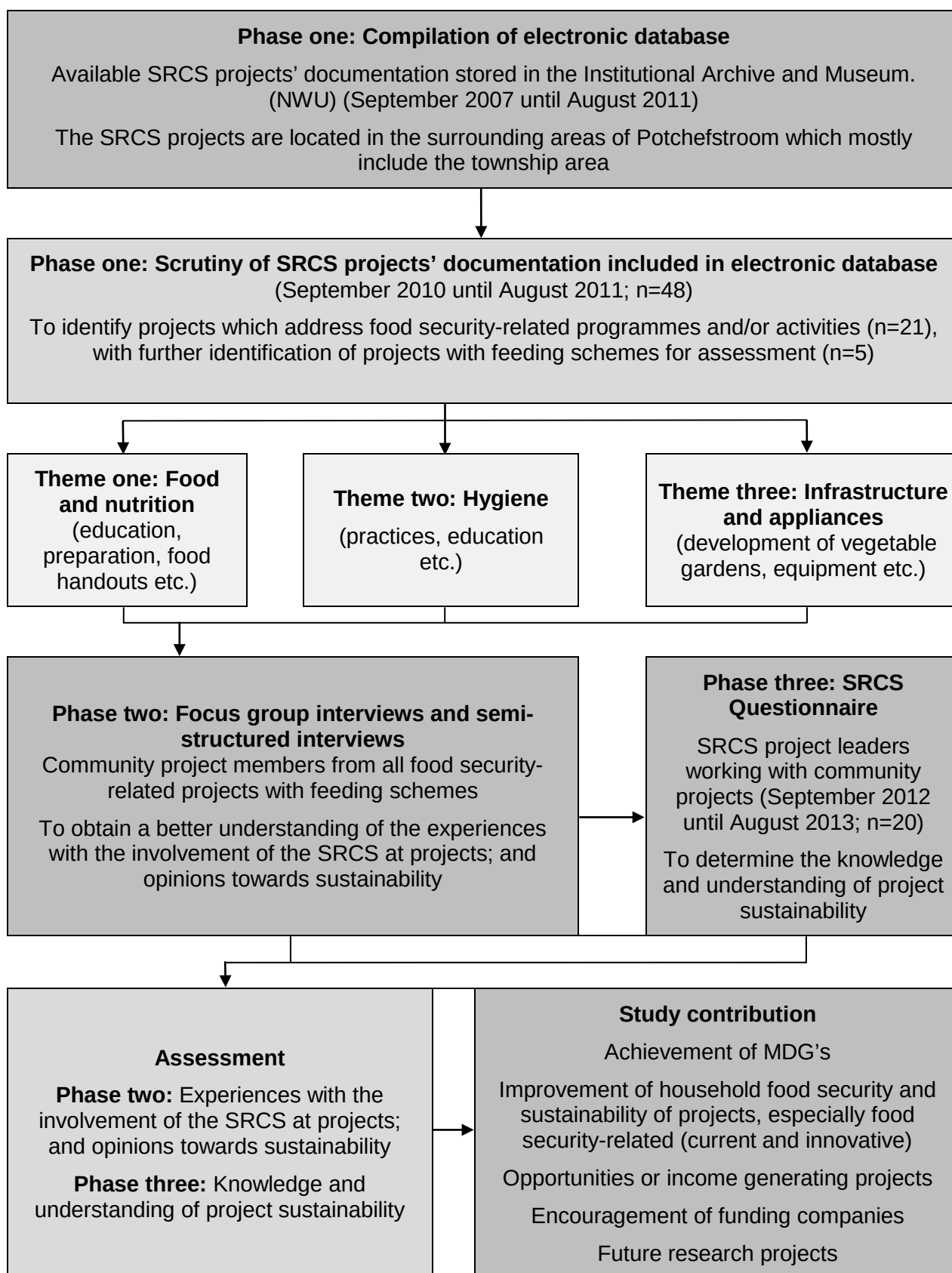


Figure 1.2 Study framework for the assessment of the food security-related projects of the SRCS

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1.6 CONTRIBUTIONS

The accomplishment of the aim of the study may contribute to the achievement of the United Nations Millennium Development Goals (MDGs) and future sustainable development goals. It may also contribute to the improvement of household food security in South Africa. The results of this study can be used as a foundation for the planning and implementation of current, on-going and innovative community projects (David & Sutton, 2011:300). Thus, the sustainability of the SRCS projects, especially those that are food security-related, may be improved. This may reduce poverty, food insecurity and malnutrition in similar communities (Oldewage-Theron *et al.*, 2006:803). Further, opportunities may also arise from sustainable projects for income generating projects within the Potchefstroom area. When households become food secure this may also assist them to deal with the death of a parent or adult due to AIDS (Gill, 2010:280) or other illnesses as it may reduce some of the expenses. This research may encourage companies to be more involved in community development as the finances provided by them will be assured of delivering sustainable projects with valuable contributions towards the community. This study also emphasises the need of more localised studies regarding the functionality and sustainability of vegetable gardens and food security-related activities and programmes within community projects.

Preliminary results of this study were presented at the Community Engagement Symposium, 10 and 11 March 2014, Vanderbijlpark.

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2.1 INTRODUCTION: GLOBAL FOOD SECURITY CHALLENGE

Globally, food security causes distress in international systems, countries and communities. This concern arose since the world food crises in 1972-74 (Maxwell & Smith, 1992). The core challenge surrounding food security is to ensure that people have sufficient access to food (Kuzwayo, 2008:163; McDonald, 2010:12; Du Toit, 2011), independent of the origin, be they produced locally, imported, or donated (Sasson, 2012). Food security can be defined as the availability of adequate and sustainable supplies of basic foodstuffs at all times, and the ability to physically and economically access such foodstuffs by all community members (Kuzwayo, 2008:163; Labadarios *et al.*, 2009; McDonald, 2010:15; Du Toit, 2011). Thus, sustainable food security refers to access of available food, at all times, through food production (Swaminathan & Bhavani, 2013:383). According to Hussein (2002:629), definitions of food security mainly include the aspects availability, access for everyone, consumption quality and quantity, and utilisation.

The United Nations Millennium Development Goals (MDGs) address food security with the first aim to eliminate extreme poverty and hunger by 2015 (Statistics South Africa, 2010). Good progress has been made with regards to the proportions poverty rates which have been halved between 1990 and 2010, but the concern of rising levels of extreme poverty remain in the Sub-Saharan Africa (Statistics South Africa, 2013). Literature also indicated that most low- and middle income countries will not accomplish the first MDG by 2015 (Uduku, 2011:60).

Food security is addressed through the seventh MDG, “integrate the principles of sustainable development into country policies and programmes reverse the loss of environmental resources” which relates to communities. Food security needs to be accomplished to assure good health and nutrition for communities (Kuzwayo, 2008:162). Since the fourth MDG, “reduce child mortality”; the fifth MDG, “reduce maternal mortality”, and sixth MDG, “combat HIV/AIDS, malaria and other diseases”, have an impact on the healthy lives of community members (Statistics South Africa, 2013), these were also related to food security, as poor health or the need to cope with the loss of a household member compromises their food security status.

2.2 FOOD SECURITY IN SOUTH AFRICA

Before South Africa became a democratic country in 1994, inequalities occurred as South Africans’ human rights were violated, poverty increased, and social and economic deficiency occurred (Labadarios *et al.*, 2009). Thereafter, inequalities were eliminated in areas such as education, health, employment, human wellbeing and rights, and access to services and

infrastructure (Statistics South Africa, 2013). Many improvements have been made but, South Africa still experiences poverty, unemployment, rapid increases in food and fuel prices, high energy tariffs, as well as interest rates (South Africa, 2008; Labadarios *et al.*, 2009). As a Sub-Saharan country, in comparison to other countries, South Africa experiences the greatest extremes of income inequality (Altman *et al.*, 2009a:345; Faber *et al.*, 2011:22; Statistics South Africa, 2013).

Food security at a national level is the ability for a country to manufacture, retain, import and sustain food for all people in the country (Labadarios *et al.*, 2009). Therefore, at a national and international level the primary concern is to ensure reliable and sufficient food supplies (Maxwell & Smith, 1992). At a community level, food security allows the population in the community to attain a safe, culturally suitable, nutritionally adequate diet through sustained access to food (Labadarios *et al.*, 2009).

Household food security depends on effective distribution of food and effective functioning of food markets (Altman *et al.*, 2009a:346) that provide food to community members so that they can have access to food in their households (Labadarios *et al.*, 2009). Food availability refers to the availability of physical food products in sufficient quantities and depends mostly on the storage, infrastructure and markets available in the community (Swaminathan & Bhavani, 2011:383). Access to available foods depends on community members' physical location and economical resources. According to Maxwell and Smith (1992), individual and household food security emphasise access to these food markets, vulnerability of the population and their rights.

Although South Africa seems to be secure at a national level, households in several areas are insecure (Altman *et al.*, 2009a:345; Altman *et al.*, 2009b; Faber *et al.*, 2011:22). The country is one of the 189 United Nations member states which are committed to the MDGs. The South African government aligned their outcomes; "Vibrant, equitable and sustainable rural communities with food security for all", "A long and healthy life for all South Africans" to address the mentioned MDGs related to the food security challenge (Statistics South Africa, 2013). South Africa is challenged to increase household consumption levels; capacity limitations; increase in infrastructure; inflation; currency volatility; selection of sectorial economic strategies; 'second economy' interventions that creates several opportunities; investment in science, research, technology and development programmes; and the alignment of national, provincial and local spatial planning (South Africa, 2008). The government has increased public spending in social programmes such as: school feeding schemes; social grants; health services free for children (between 0-6 years), pregnant and breastfeeding women; public services; and agricultural related programmes (Hendricks, 2014). South Africa's MDGs report indicated that

although levels and dept of poverty decreased the level of inequality remains high due to the wealthiest five percent of the country (Statistics South Africa, 2013). In addition, the country is almost independent in all major food products and has the ability to import food products when there are scarcities (Du Toit, 2011). The proportion of imported goods from developing countries and least development countries in South Africa increased from 2002 to 2011 (Statistics South Africa, 2013). Furthermore, land reform transferred land to previously disadvantaged communities to overcome inequalities, but limited bulk foods have been produced to sustain the local supply (Hendricks, 2014).

It is evident that food security is still affecting a large proportion of South Africa's consumers (Kuzwayo, 2008:164). The frequency of hunger and starvation that was always experienced has decrease from 2.3 per cent in 2002 to 0.7 per cent in 2011, whereas chronic hunger often experienced decreased from 4.4 per cent in 2002 to 1.9 per cent in 2011 (Hendricks, 2014). Further, the frequency of hunger sometimes experienced halved from 16.4 in 2002 to 8.7 per cent in 2012. Households in South Africa rely on food hawkers and markets to provide access to food in exchange for capital (Altman *et al.*, 2009a:359; Kallmann, 2011:210). These sources dominate the agric-food value chains and their prices may be incredibly high, making it unaffordable (Altman *et al.*, 2009a:359). When households do not have sufficient funds to afford the adequate quantity of food, it could become problematic, making them more vulnerable towards food insecurity than before.

The Bill of Rights (South Africa, 1996:1255) supports every consumer's right to adequate food and water supply (Hussein, 2002:631; Du Toit, 2011). According to Rogerson (1996:169), the black townships in South Africa, which include informal settlements, lack social infrastructure and have deprived facilities. Although informal settlements provide shelter to many people in developing countries such as South Africa, the socio-economic factors are not sustainable (Wekesa *et al.*, 2011:244). Niesing (2012:12) also stated that poverty in South Africa is more amongst African people, but it is not restricted to a specific race. Community members are constantly relying on the government to bring structural change in deprived areas to overcome food insecurity (Altman *et al.*, 2009a:345). The high unemployment rates make the low income households vulnerable to the national policy choices and politics (Altman *et al.*, 2009a:346). According to Pereira *et al.* (2014:339), an adaptive food policy should not only focus on production, but also the sustainable livelihoods of community members.

At a household level links are created between food and nutrition, rural development and environmental sustainability. South Africa is one of 36 highly vulnerable countries, which are listed by the World Health Organisation (WHO), concerning malnutrition (Faber *et al.*, 2011:21). Malnutrition includes both under- and over-nutrition, and these numbers amongst adults and

children have degenerated in South Africa. Children are mostly vulnerable as large numbers suffer from stunting as a malnutrition disease (Faber *et al.*, 2011:21). Nutrition security can only be achieved through a food based approach in an economically and social manner. Foods nutrient absorption of community members is important towards food availability and relates to safe water, hygiene and sanitation, health care, food and nutrition knowledge and training (Swaminathan & Bhavani, 2011:384).

Furthermore, South Africa is experiencing the most rigorous HIV epidemic (South Africa, 2008). According to Altman *et al.* (2009b), there are negative connections amongst food security and AIDS/HIV. Other diseases such as diarrhoea, tuberculosis and malaria that are high in Sub-Saharan Africa (Naylor, 2014:190) also have similar connections. When a family member is lost due to sickness, additional outcomes such as medical and funeral costs will reduce the ability for the household to purchase food (Faber *et al.*, 2011:28). Generally in South Africa quality health care services are not available to everyone (Niesing, 2012:12) and private health care services which may provide higher quality health care tend to have higher tariffs.

2.3 VULNERABILITY FACTORS ASSOCIATED WITH FOOD SECURITY

Vulnerability can be described as the inclination to be exposed to risks and the ability to control and survive these risks whenever they are experienced (Hussein, 2002:629; Brinkmann *et al.*, 2010:154S). According to Faber *et al.* (2011:23), factors such as the loss of crops, water scarcity, the loss of a household member due to illness, rising food prices and the global economic turndown contributes to the vulnerability towards food security. Community members can be exposed to both external and internal factors which influences their food security status.

Furthermore, literature identified external factors that may contribute to food insecurity which is also related to sustainability of projects supporting household food security. Some of these aspects include:

- Global economic crisis and rising food prices (McDonald, 2010:12; Faber *et al.*, 2011:23; Gregory & Coleman-Jensen, 2011)
- Climate change and treacherous weather events (Sasson, 2012; Faber *et al.*, 2011:23; McDonald, 2010:12; South Africa, 2008)
- Income and unemployment rate (Niesing, 2012:11; Bartfeld & Dunifon, 2006:921)
- Deprived health and nutrition (Niesing, 2012:11)
- Limited access to resources (Niesing, 2012:11)

Poverty is seen as the main cause of household food insecurity resulting from limited access to capital that is causing insufficient supply and variety of food (Du Toit, 2011;

Oldewage-Theron & Kruger, 2011:425). Unemployment is concurrent with poverty which has the same effect and limits food supplies. This results from inadequate work opportunities and the lack of resources in the community. The lack of resources and limited access to food can be used as indicators of poverty (Niesing, 2012:11). The social impact of unemployment can change the needs of a household drastically (Wekesa *et al.*, 2011:244). Studies have found that only a fifth of households spend enough of their income on food to obtain adequate and nutritious food (Altman *et al.*, 2009a:352).

Communities living in informal settlements are usually more vulnerable towards food insecurity as they are suffering from poverty and have limited resources to feed themselves (Sasson, 2012). They mostly rely on subsistence from the informal economy (Wekesa *et al.*, 2011:244) and within the dynamic environment they are exposed to risks (Faber *et al.*, 2011:23). Community members may also experience internal factors affected by different socio-demographic factors which directly impact households' food security status. These aspects include race, gender, income, level of education and household size (Zain & Naing, 2002:411).

Community members' skills can be associated with academic achievement and cognitive abilities (Tan *et al.*, 2014:272). Beside from the project community members, parents from children might also not have good literacy skills (Tan *et al.*, 2014:273). Although limited capital also causes an insufficient variety of food, this may also be caused by a lack of food and nutritional knowledge related to aspects such as food decisions and preparation. Within a study done by Gundersen and Garasky (2012:1865) there is a relationship between finance management skills and food security which also affected members' confidence to manage these. These skills limit the negative impact from an economical crisis and identify possible saving opportunities. Sustainable community projects may support community members to develop coping strategies and interventions that will overcome risks and food insecurity in communities and households. Food security needs to be sustainable, but to support sustainable community projects a conceptual framework for this study was composed (Figure 2.1).

2.4 SUSTAINABILITY

Sustainability is a challenging concept. It is a long-term approach that demands the continuation of benefits, implemented programmes and the availability of resources within a project so that they are also part of the livelihoods of future generations even after the developing organisation is no longer involved (Mog, 2004:2140 & Niesing, 2012:20). Van Niekerk (2006:35-36) states that there are four main areas of sustainability which are nature (earth, biodiversity and ecosystems), life support (ecosystem services, resources and the environment), community

(cultures, groups and places) and human factors (human ability, skills and knowledge). In addition and for the purpose of this study, Bell and Morse's (2008:97) concept of sustainable development, "defined activities carried out by defined people with a defined end point in mind at a defined cost and over a defined period of time" was included.

Sustainable development (SD) ensures social, environmental and economic services to everyone without interfering with the feasibility of the ecological and community services on which these services rely (Guy & Kibert, 1998:40). It is important to understand how communities unite with their resources in their social and physical environment in a certain time frame (McCullum *et al.*, 2005:278). Ndeke (2011:16) also described SD as a "commitment to living within the earth's carrying capacity" or "social development where concerns like resource use, pollution, biodiversity and meeting local needs are crucial". The South African government defines sustainable development in the National Environmental Management Act (NEMA), (Act No.107 of 1998) as it is globally accepted and defined by the Brundtland Commission. Sustainable development is defined as the combination of social, economic and environmental factors that are used in the entire process to ensure that it benefits current and future generations (South Africa, 2008). Thus, sustainable development entails the justness within and between generations and retains the integrity of natural, financial and human capital (South Africa, 2008). South Africa uses A National Framework for Sustainable Development as a basis for strategies, programmes and interventions to ensure a more sustainable direction (South Africa, 2008).

2.4.1 Sustainable development in community projects

The community-based participatory research can be used to determine community needs and assets. The research ensures that proper planning can be conducted and that funding can be allocated to local community projects (Lazarus *et al.*, 2014:149). The lack of proper planning may lead to unsustainable futures (Holm, 2014:808). Background information needs to be obtained from the community members and the physical project within its environment before the conduction of the need assessments so that a situation analysis can be created. This is supported by Hussein (2002:641) who states that an understanding of community members' experiences should be obtained before developing programmes. Needs identification from community members provides project ownership (Holm, 2014:808).

In the study done by Lazarus *et al.* (2014:158) the researchers obtained information through the participation of youth, adults and supporting organisations to implement projects and ensure development. Community assets and needs were identified through workshops, questionnaires, interviews and community engagement processes. Community asset mapping is done through

plotting physical assets in the community area (Lazarus *et al.*, 2014:149). These assets may include buildings and structures, health services, community members' strengths, educational services and projects, community organisations, governmental services, religious organisations, natural environment, economy and employment opportunities (Railton Foundation and Stellenbosch University, 2010:7). After the assets and needs have been identified, recommendations were made by the supporting organisation within a community meeting from which priority actions were further identified.

Another study done by Kloppers (2014) based on corporate social responsibility also made use of a participatory process and mapping. When needs were decided upon, an agreement should be entered, such as an memorandum of understanding (MOU), with the community and the supporting organisation that clarifies the roles within the projects, including an exit strategy that allows withdrawal and indicators to measure success. This is also supported by Holm (2014:808) who states that partnerships should be created with an exit strategy that ensures sustainability. Lazarus *et al.* (2014:158) highlighted the importance of developing a relationship and partnership with communities which is a challenge to sustainable community development due to past dominations and inequities.

Participation is seen as the most important aspect of the implementation of sustainable community development in community projects. The basis of participation of community members needs to be decided and clarification would be required within the process where all community members are involved, especially when responses are beyond limits (Cornwall, 2008:272). Typology of participation can be summarised as follows (Cornwall; 2008:272; Pretty, 1995:1252):

- Manipulative participation: Community representatives are on an official board, but do not have power.
- Passive participation: Community members are being informed on decisions made without considering community members' responses.
- Participation for material incentives: Community members participate to receive food, cash or other necessities.
- Functional participation: Community members participate through interaction and shared decision making to meet specific project objectives. This occurs after major decisions have already been made by the supporting organisation.
- Interactive participation: Community members take ownership and form part of group discussions to develop action plans to ensure sustainable development. Interdisciplinary methodologies are being used that focus on multiple perspectives and implement learning processes.

- Self-mobilisation: Community members take control over resources and initiate to partake without the supporting organisation. Supporting networks are formed, especially with the support of government and NGOs.

The last two participatory categories, interactive participation and self-mobilisation, promote participation processes and allow community members to have ownership over their resources. Interactive participation would take place during the implementation of community projects, whereas self-mobilisation would be the ideal outcome after the supporting organisation has withdrawn from the community project and the project becomes sustainable.

According to Bell and Morse (2008:79), the Academy of Sustainable Communities (ASC) considers the following as important aspects of sustainable communities:

- Governmental participation and leadership in the management communities.
- Transport, connectivity creating work opportunities and health services.
- Accessible public, private and voluntary services.
- Safe, environmentally friendly, living environment.
- Successful and growing local economy.
- Well developed infrastructure with community culture and activities.

These aspects can also be seen as barriers to achieve sustainability within community projects.

A study done by Trier and Maiboroda (2009:824) where community members' perceptions and attitudes towards sustainability were explored, indicated that interview and focus group responses gave them in-depth information based on social aspects of sustainability. The focus moved from technology aspects to social aspects of sustainability. Dedication in the small community supported the community members' social consistency. Basic skills might need to be developed, to promote connectivity and relationships, to become sustainable (Trier & Maiboroda, 2009:824). Supporting organisations should fulfil the role of a motivator, instead of a facilitator, and promote community ownership (Trier & Maiboroda, 2009:830). Awareness was created that influenced the community members to adapt their own livelihoods that promote sustainable development.

2.4.2 Sustainable livelihood assets and associated groups

Successful community projects should respond to both the community's present and long term health and natural needs (McDonald, 2010:150; Hoxmeier & Lenk, 2003:94). Needs assessment identifies the inaccessible resources, whereas livelihoods assessment identifies the accessible resources (Van Niekerk, 2006:103). Need assessments enable one to identify differences between communities, strengths and cultural uncertainties (Fletcher *et al*, 2013). Furthermore, livelihoods on their own may compromise assets needed to live, but when

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livelihoods are sustained assets become available for the future (Morse *et al.*, 2009). Thus, sustainable livelihoods can be defined as the capacity of communities to generate and maintain their means of living, improve their well-being and that of future generations (Butler & Mazur, 2007:606).

The sustainable livelihood approach has been used since 1990s to eliminate poverty and promote economic growth that benefit the poor (Morse *et al.*, 2009). It broadens the focus from agricultural activities to diverse strategies (Hussein, 2002:641). It is used by Non-governmental organisations (NGOs) to measure food security (Hussein, 2002:640). Activities or interventions, assets and rights can be used to identify economic, social and physical aspects related to livelihoods (Singh & Gilman, 2000:2). This approach has also been used to determine project sustainability and perceptions of community members within this study, as well as in other community based studies (Van Niekerk, 2006:103; Niesing 2012:25).

This approach uses the following five assets to facilitate community development programmes (Morse *et al.*, 2009; Niesing, 2012:14) (Figure 2.1):

- Human capital
- Social networks and systems
- Physical infrastructure
- Natural resources
- Economic and financial capital.

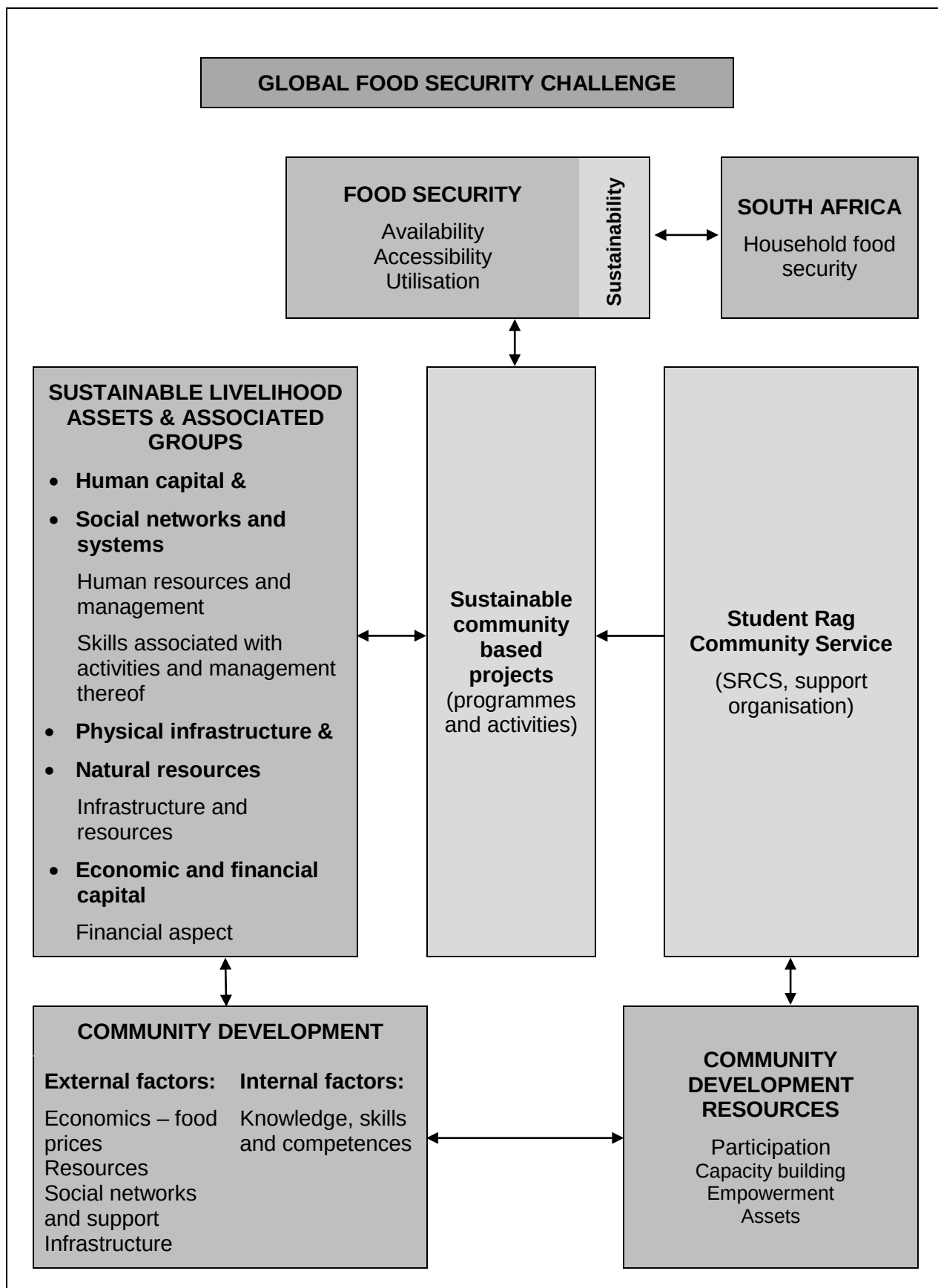


Figure 2.1 Adapted from Singh and Gilman (2000) and Niesing (2012:73) a theoretical framework for factors contributing to sustainable community projects

2.4.3 Sustainability indicators

Sustainability indicators (SI) are quantifiable or describe the effectiveness of a method (Niesing, 2012:32). Further, SI allows communities to assess their needs and identify resolutions to meet needs. According to Ndeke (2011:22), an indicator's meaning depends on whether it is used in social, ecological, environmental or institutional measurements. A balance should be maintained between these measurements (Niesing, 2012:32). Researchers, from various disciplines, have developed several types of SI that may be used to determine projects' sustainability and may be of a qualitative or quantitative nature. Sustainability indicators can be described against the livelihood assets. These indicators should be in relationship with the identified assets, but will vary between projects depending on the community projects' needs.

In the study done by Niesing (2012:47-49) 26 sustainability indicators were identified (Table 2.1). These indicators were grouped according to four sustainability livelihood assets related groups, excluding natural resources (Figure 2.1):

- Human resources and management
- Skills associated with activities and management thereof
- Infrastructure and resources
- Financial aspect.

Table 2.1 Livelihood assets with associated sustainability indicators

Sustainable livelihood assets related groups	Sustainability indicators (Niesing, 2012:47-49)
Human resources and management	1. Number of people generating an income in the project 2. Productive capacity of the project members 3. Conflict management within the project 4. Clear leadership roles within the project 5. Support for the project provided by facilitator/support organisation 6. Using social networks to the advantage of the project 7. Childcare during working hours 8. Other institutions provide cultural support to the project 9. Other institutions provide religious support to the project
Skills associated with activities and management thereof	10. Available skills for income-generating activities in project 11. Training opportunities for the project members 12. Improvement of business skills of the project members 13. Innovative and creative abilities of project members 14. Continuous support in project management from the support organisation 15. Skills assessment of project members 16. Skills evaluation of new members when joining the project 17. LIFEPLAN[®] training for new members when joining the project 18. Integrating traditional skills when developing products sold by the project
Infrastructure and resources	19. Transport opportunities to markets when buying stock and selling products 20. Availability of communication facilities (like internet and telephone facilities) to the project 21. New product development for products sold by the project 22. Access to markets for selling products made by the project
Financial aspect	23. Saving opportunities for the project 24. Sources of credit for the project 25. Another source of income except income generated by the project 26. Financial record keeping in the project

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Constraints experienced towards community livelihoods can be reduced through grassroots programmes (Lindenberg, 2002:315), but require communities to take responsibility for the sustainability of their livelihoods. They should have self-reliance, be creative in the use of resources, and work together when planning and implementing programmes (Butler & Mazur, 2007:608). Supporting organisations should follow common goals to sustain communities' livelihoods.

This study assessed the sustainability of community projects. Assessments assist with the determination of sustainability and assist both the organisation and the community members to improve programmes (Chalker-Scott & Tinnemore, 2009:1135-1136). Assessors may be independent from the organisation, but honest and objective assessment is essential to achieving sustainability. Assessments should focus on the priority areas, including funders' priorities (Chalker-Scott & Tinnemore, 2009:1137). Assessment of the programmes of community projects can be done through the use of sustainability indicators that are discussed within the following section below.

2.4.3.1 Human resources and management

The human capital represents community members' knowledge, skills and competences (DFID, 1999). Communities contribute skills to perform tasks that improve their livelihoods (Van Niekerk, 2002:42). Supporting organisations drive skills transfer through community programmes, which allow development of the human capital. Programmes should involve all community members to prevent lower skilled individuals to become disadvantaged (DFID, 1999). This can be done through clarifying leadership roles and responsibilities within communities.

The project framework should include a goal and objectives of the project and clearly outlines activities that may flow from it (Bell & Morse, 2008:99). Within this framework, individuals and groups operate in different roles and levels of responsibility. Community leaders are responsible for the planning, they act on behalf of themselves and the wider society which is directly involved within the project (Bell & Morse, 2008:100). Community members that have obtained the knowledge and skills, from programmes and activities, should be granted opportunities to support neighbouring communities (DFID, 1999). This would further promote skills transfer within their community. In addition, Niesing (2012:32) also indicated that a lack of education is a barrier to sustainability. The support provided to a project mainly depends on the needs and livelihood assessment as previously discussed.

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In a food related study done by McCullum *et al.* (2005:283) it was suggested that supporting policies should rather give community members the ability to purchase nutritious food than making them dependable on charitable food sources. Furthermore, solutions to overcome food insecurity must be developed through strategies that are sustainable towards the community as well as their environment (McDonald, 2010:148). To improve the lives of the most deprived communities it is important to create partnerships with communities to address needs. These will enable organisations to provide assistance to achieve objectives such as the provision of clean water and adequate sanitation, participation in decision making, basic housing, and proper nutrition (Lindenberg, 2002:315).

2.4.3.2 Skills associated with activities and management thereof

Human capital is grown through community members training by obtaining relevant knowledge and skills, and having access to health care services including proper infrastructure (DFID, 1999). Relevant knowledge and skills address their current and future objectives to improve their livelihoods. Focus should be on the communities' strengths with further focus on capacity building, training and resource development (DFID, 1999). This can be done by first assessing the skills of community project members. Research based on a food-security related project indicated that when community members obtain an understanding of the impact of vegetable gardens on nutrition, programmes tend to be more sustainable (Faber *et al.*, 2011:25). Supporting organisations should always promote the use of creative abilities which may also become saving opportunities for community projects. Furthermore, the development of projects should consider the communities traditional skills and indigenous knowledge (Van Niekerk, 2006:103). Traditional knowledge and skills are vital as they promote pro-environmental behaviours and sustainable food consumption. According to Braun and Beckie (2014:54), outmigration, and poor social and physical infrastructure has led to limited traditional food skills and knowledge.

2.4.3.3 Infrastructure and resources

The infrastructure and resources of a community project form part of the physical capital (DFIF, 1999) (Figure 2.1). Infrastructure refers to access and affordable transport to community members, safe buildings or housings, sufficient water supply and sanitation, and access to affordable energy (DFID, 1999), which may also include the development of vegetable gardens. The socioeconomic disadvantages of the lack of transportation and nearness of stores are related to food insecurity (Sadler *et al.*, 2013). Programmes that include activities related to vegetable gardens development are often challenged by the sustainability thereof in the long term (Laurie & Faber, 2008:209). Small scale farming, such as vegetable gardens, can make a

potential contribution to the household food security (Altman *et al.*, 2009a:346), but it is rare that such projects are sustainable when funding is withdrawn (Butler & Mazur, 2007:609). Resources include obtaining the necessary equipment and necessities to manage community project programmes successfully. Without proper infrastructure and resources, communities may become unproductive in the development of natural resources and human capital as most of their time may be spent on meeting basic needs, production and accessing markets.

2.4.3.4 Financial aspect

The economic and financial capital refers to the financial resources available to community members (DFID, 1999) (Figure 2.1). Financial resources are the projects funds and may include access to cash as well as credit, and the regular flow thereof. Economic factors are used as reference to evaluate economical growth, increase in income per capita, and inequality between income groups (Lindenberg, 2002:302). According to Niesing (2012:73), funding organisations will mostly provide financial capital as contribution. Non-governmental organisations (NGOs) also have an important role in community development as they have access to funding (Sutherland *et al.*, 1999:385; Butler & Mazur, 2007:610) and may also include non-profit organisations (NPOs). These organisations may create saving opportunities for the community projects which would be positive towards the project financial stability. Programmes such as small-scale and subsistence agriculture may enhance the income and/or saving of communities to meet requirements (Altman *et al.*, 2009b; Du Toit, 2011).

2.4.4 Community development resources

2.4.4.1 Participation

Community engagement in the early stage is the foundation for successful and sustained engagement (Fletcher *et al.*, 2013). According to Paul (1987), participation is an active process by which groups direct developing projects with the purpose of improving well-being with regards to income, personal growth, self-reliance and other values. Participation is effective when all the stakeholders are actively involved in the planning, implementation, and evaluation of community programmes. Participation can be seen as the essential component of the social development within communities (Niesing, 2012:14) (Figure 2.1). Communities can take control and responsibility of their own situation and actions to ensure sustainable development.

Bell and Morse (2008:100) introduced institutional ethnography (IE) which includes the participant observation which gives community members the opportunity to give opinions and ideas based on their perceptions. An indication of the functionality of an institution and a better

understanding of the activities conducted may result from IE. Participatory approaches are required to identify community members' needs as well as priorities (DFID, 1999). With this approach Niesing (2012:15) suggests a bottom-up approach to encourage community participation. With this approach community members identify their own needs, find a solution, and have confidence to make a difference. It is especially followed when a previous top-down approach did not succeed (Fraser *et al.*, 2006:115). It is indicated that programmes do not necessarily need to be initiated through a bottom-up approach, but community members should be the drivers of the project (Fraser *et al.*, 2006:126).

Community participation entails the authority over assets and influencing activities to improve wellbeing (Niesing, 2012:15). Community members should be aware of their assets to ensure proper development. Community participation should be supported by the organisations through the provision of assistance such as childcare and transport (Niesing, 2012:16), should it prevent communities from participating. Community projects that involve agricultural activities may be abandoned when community members experience small scale farming as problematic or meaningless (Faber *et al.*, 2011:23). Opportunities for supporting organisations for food and nutrition-related activities may arise which may encourage participation and increase livelihoods (Butler & Mazur, 2007:607).

Community participation in informal non-school-related activities can take place at school facilities which is supported as it improves the relationship between the school and the local community (Uduku, 2011:61). The community may, therefore, contribute to the school structure and maintenance of buildings over which the school will have ownership.

2.4.4.2 Capacity building

Community capacity building is the development of assets and strengths to improve livelihoods. This may be influenced by negative factors such as: ignorance of the community members, lack of skills, illiteracy limitations, lack of ownership, insufficient needs assessment, lack of commitment, and lack of management skills (Niesing, 2012:18) (Figure 2.1). Therefore, it is recommended that a bottom-up approach should be followed with community development, but community participation will have a limited role when building capacity. This implies that tasks may be shared with the community, but some of the tasks should remain the project's responsibility. This will include the monitoring (Paul, 1987) such as the progress made towards sustainability or development of assets. Capacity building is successful when community ownership consists of programmes and when communities are independent from supporting organisations (Niesing, 2012:17).

2.4.4.3 Empowerment

According to Niesing (2012:16) empowerment build human capacity in disadvantaged community members which enable them to exercise responsibility and take ownership over their situations. Empowerment gives the community the ability to improve skills that will assist them to overcome poverty associated with food security. Development activities empower community members to initiate actions independently that will contribute to their development (Paul, 1987). Community powers that ensure empowerment to develop communities and their livelihoods includes the following (Niesing, 2012:16):

- Power over personal decisions and life opportunities.
- Power over definition of need.
- Power over resources.
- Power over ideas.
- Power over economic activity.

2.4.4.4 Assets

Assets may include resources that create livelihoods and are referred to as economic, social and environmental factors which are dimensions of sustainability (Van Niekerk, 2008:16). Niesing (2012:14) (Figure 2.1) further breaks down these economic and social assets into human capital, social networks and systems, natural resources, physical infrastructure and economic and financial capital. These assets may be owned or managed by community members. It is a challenge for rural communities to gain access to livelihood assets (Academy of Nutrition and Dietetics, 2013:590), but when they do gain access to these assets and are using it productively, it reduces poverty and supports sustainable growth (Niesing, 2012:14). Within community projects, assets can be provided by stakeholders who may include land for vegetable gardening and buildings (Niesing, 2012:73). In an economic crisis community members may sell their assets as a coping strategy, resulting in a decrease in available food, land, and/or farming and household assets (Academy of Nutrition and Dietetics, 2013:590).

2.5 FOOD SECURITY-RELATED PROGRAMMES AND ACTIVITIES

Supporting organisations may assist community projects to overcome factors which make them vulnerable towards food insecurity. Differentiation between the supporting organisation and community projects may include age, gender, religious conviction, culture and traditions, and socio-economic status and history (Fletcher *et al*, 2013). Differences should be considered as these may lead to barriers experienced between the parties.

Many possible solutions can be identified when food security is understood, but the solutions need to be properly managed (McDonald, 2010:148). Vegetable gardens are often implemented at community projects, but when there are a food crises, without interventions communities tend to avoid investment in agricultural projects (Sutherland *et al.*, 1999:364). Although, sustainable vegetable gardens may be a solution, it is not the only solution (Oldewage-Theron *et al.*, 2006:803). Activities should include combinations of agriculture and non-farmer activities. Within this study three main themes were identified to group food security-related programmes and activities namely food and nutrition; hygiene; and infrastructure and appliances.

2.5.1 Food and nutrition

Implementation of sustainable community projects is important to ensure food security. The community members' dependence of specific non-perishable foods influences their micronutrient intake due to their lack of growing their own produce (Pereira *et al.*, 2014:339). Communities suffering from poverty tend to lower their food consumption to a limited variety and lower quality of food (Altman *et al.*, 2009a:347; Faber *et al.*, 2011:22), compromising their food and nutrition security. According to Guilbault *et al.* (2014), food production and preparation knowledge and skills have been lost over one or two generations, which might have resulted from the decline in locally prepared food and increase in retail stores.

Community ownership of food systems can be seen in activities such as (Butler & Mazur, 2007:607; Guilbault *et al.*, 2014:46):

- Increase in production and market opportunities.
- Development of educational programmes and production of food sources.
- Food preparation skills to manage health and wellness, as well as saving and employment opportunities.
- Investing in infrastructure such as kitchens and farming areas.
- Utilizing vegetable gardens.
- Development of entrepreneurial skills.
- The engagement of external community members (parents, farmers, schools, etc.).
- Supportive policies.
- Innovative activities such as training in medical vegetable production.

Traditional food practices would include activities such as vegetable garden maintenance, cooking and processing skills (Braun & Beckie, 2014:54).

2.5.1.1 Consumer education and training

Furthermore, consumer education and training through community programme activities may improve food consumption of a variety of safe and nutritious foods. Training sessions may also enable community members to obtain skills such as food handling and preparation, menu planning, as well as knowledge of food and nutrition. Programmes should target and develop young people, but not necessarily exclude older people, and use schools as a platform to implement interventions. Even though a larger population of older people are developing vegetable gardens they are only a small fraction of the population that consists of more young developers (Altman *et al.*, 2009b). This may ensure that skills transfer takes place between generations. Quality assurance must be carried out for developed educational programmes and should not be scattered but have an education structure (Chalker-Scott & Tinnemore, 2009:1133).

2.5.1.2 Feeding schemes

The government and development organisations assist schools, mostly in rural areas, to operate feeding schemes (McEvan, 2013:122). Feeding schemes contribute to the achievement of two of the United Nations MDG's, such as the reduction of extreme poverty and hunger and halving the proportion of the global population suffering from malnutrition (Uduku, 2011:60). According to the Society for Nutrition Education (SNE, 2003:64), food provided to children should be appealing, nourishing, and culturally relevant; it should promote children's health, well-being and education. Schools with feeding schemes encourage parents to enrol children in school and it encourages regular attendance (McEvan, 2013:122; Academy of Nutrition and Dietetics, 2013:592).

Nutritious foods may assist in children's physical and cognitive development, which may improve the performance of children's education, and improve nutrition and prevent malnutrition (Uduku, 2011:60; Academy of Nutrition and Dietetics, 2012:592; McEvan, 2013:124). According to Uduku (2011:60), feeding schemes influence the parents and residence in the local community and the benefits of childhood nutrition may multiply. Some feeding schemes also include take-home rations and supplements which can be fortified food (Uduku, 2011:60; McEvan, 2013:125). To ensure that beneficial nutrition services are provided, programme developers should consult dietetic professionals and nutrition education professionals. These professionals have the expertise and skills to improve the health and well-being of children (SNE, 2003:64).

2.5.1.3 Food handouts

In severe cases, such as the study done in eastern Sudan, food handouts have relieved the food crises and saved lives (Pantuliano, 2007:S82). Foods were distributed in rural areas, but did not always reach the most vulnerable and resulted in such communities moving to town to prevent them from becoming disadvantaged from such handouts. Food handouts had little impact on food security and resulted in community members becoming dependent on supplies (Pantuliano, 2007:S82). The researcher explained that this result was not caused by the supplies, but by the support organisations and government that did not achieve the long term aim for sustainable development. It was recommended that an exit strategy is developed for the provisions of food supplies and that support should rather focus on development such as education (Pantuliano, 2007:S88).

2.5.2 Hygiene

Food security-related programmes and activities based on hygiene may focus on food hygiene, personal hygiene, as well as handouts to assist with the implementation and sustaining the projects. The study done by Nakininge *et al.* (2009:192) implemented related activities such as:

- Personal hygiene improvement such as hand washing facilities.
- Water supply and sanitation to improve the quality of water used.
- Handouts at health units.

As discussed, training related to these aspects can also be conducted through project programmes. Hygiene handouts such as posters can be used at projects to create awareness among community members. Moreover, the handouts may create a similar outcome as that of food handouts.

2.5.3 Infrastructure and appliances

In this study, infrastructure activities refer to the development of buildings and vegetable gardens to assist with the operation of feeding schemes. Whereas appliances, refer to the necessities and equipment needed to simplify and successfully implement food security-related activities as discussed. The implementation of food and nutrition related activities require from a project to own several appliances and equipment to simplify and successfully implement activities. These may include basic appliances such as a kettle and a microwave; and equipment such as cutlery, utensils, pots, stove, refrigerator and freezer.

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Approaches to address food security involve the increase in the supply through the production of food and improving access through sustainable livelihoods within community projects (Hussein, 2002:629). Food production is also a component of the sustainable goals of numerous cities and towns throughout the world, where vegetables gardens are being encouraged and protected (Domene & Saurí, 2007:288). The development of vegetable gardens does not necessarily ensure food security, but it may serve as additional source of food especially amongst low-income households (Thornton, 2009:19).

Vegetable gardens can be linked to community project activities (Laurie & Faber, 2008:2100) and should consist of a diversity of crops including cold- and warm-weather crops. This will improve the variety of food consumed (Altman *et al.*, 2009b; Faber *et al.*, 2011:22), and ensure the availability thereof throughout the year (Faber *et al.*, 2011:24). Vegetables may include those that are especially high in vitamin-A such as carrots, butternut, sweet potatoes, pumpkin, and green leafy vegetables such as wild-growing leaves and spinach (Faber *et al.*, 2011:24). A study done by McAleese and Rankin (2007:664) found that when garden developing activities as well as nutrition education are done, the consumption of vegetable and fruit increases. According to the Academy of Nutrition and Dietetics (2013:592) gardens at schools can extend to communities and it creates awareness of good nutrition.

2.6 CONCLUSION

Food security is a global concern especially for communities suffering from poverty. South Africa is secure at a national level, but is insecure at a household level. Factors that affect the vulnerability towards food insecurity include external as well as internal factors. Community projects can mostly influence the internal factors experienced by community members. Sustainability ensures that resources are also available for the future. This requires one to consider the important aspects of sustainability and to measure the progress made towards sustainability with the use of sustainability indicators. These measurements should be balanced between the different livelihood assets. Four groups related to these assets were identified and included: human resources and management; skills associated with the activities and management thereof; infrastructure and resources; and financial aspect. The SI are introduced with related to these groups. Furthermore, participation, capacity building, empowerment and assets are important community development resources needed for sustainable community projects. As this study focused on food security-related programmes these were discussed according to the themes: food and nutrition; hygiene; and infrastructure and appliances.

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CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

The following chapter describes the research methodology used within the study. The overall methodology of the study is provided followed by the methodology of the different phases later in this chapter. The methodology consisted of the research approach; sampling; data analysis; credibility and trustworthiness or validity and reliability; and ethical considerations.

3.2 RESEARCH STRATEGY AND DESIGN

This study consisted of a case study that was done for the assessment of the SRCS community projects. This type of study was suitable as the researcher wanted to investigate a specific phenomenon, the food security-related SRCS projects and the sustainability of the SRCS projects in general, within its real-life content (Nieuwenhuis, 2010b:75). Case studies are especially useful when assessing projects or programmes over a time period as detailed information can be collected (Figure 3.1) (Creswell, 2014:14).

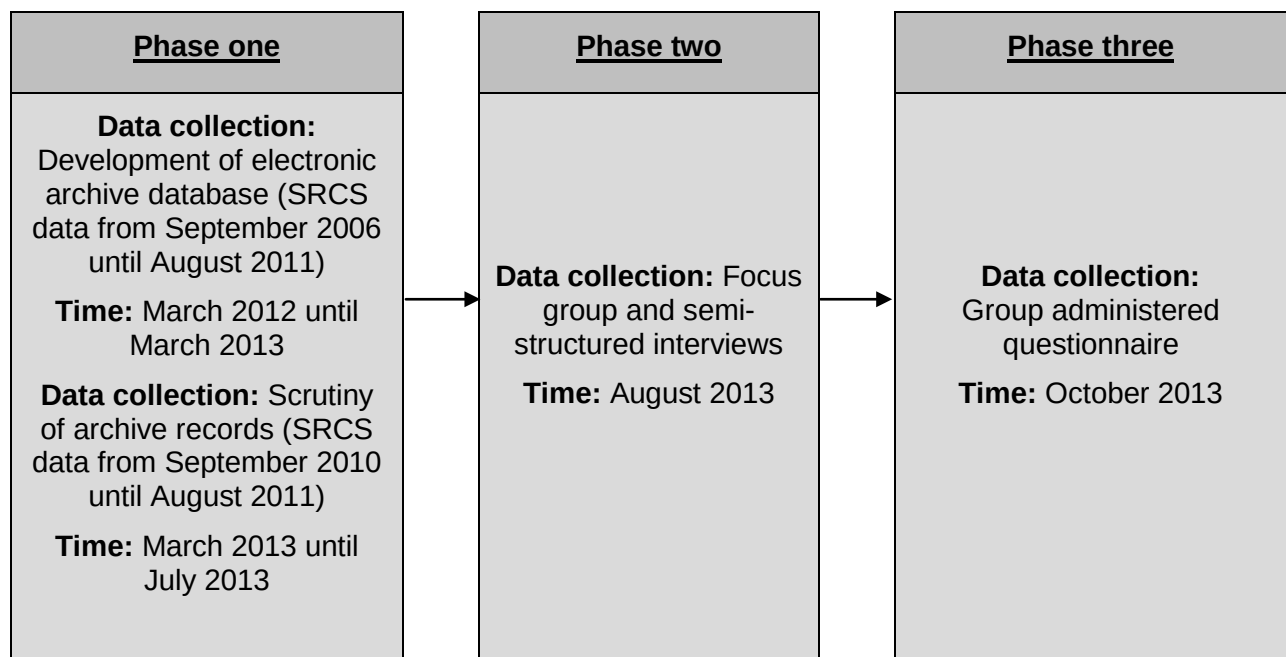


Figure 3.1 Data collection timeframe

The use of different data collection methods is vital with the conduction of a case study (Nieuwenhuis, 2010b:75). Thus, the research strategy mixed methods was followed. This strategy included a combination of quantitative and qualitative research methods and data

(Cresswell, 2014:3; David & Sutton, 2011:294; Ivankova *et al.*, 2010:262). The data collection methods for case studies include the assessment of portfolio documents (phase one), interviews (phase two) and a survey questionnaire (phase three) (Nieuwenhuis, 2010b:76). The obtained data were mostly qualitative, but also included quantitative data. Thus, qualitative and quantitative methods were necessary to analyse the data, which resulted in a more elaborate approach that presents a deeper understanding of the data (Ivankova *et al.*, 2010:263).

Mixed methods research inaugurated from the late 1980s and early 1990s, and was used by researchers in study fields such as assessment, education, sociology, health sciences, and management (Cresswell, 2014:217). This study explores the use of mixed methods in the field of assessment, management, and health sciences. Assessment entails the evaluation of the SRCS community projects in order to effectively manage and improve the non-profit organisation (NPO) on an annual basis. The research focus, food-security related community projects, is further included in the field of consumer sciences which forms part of the health sciences. Mixed methods research requires prevalent data collection and is time-intensive to analyse the different types of data (Cresswell, 2014:218). According to Punch (2005:240), Cresswell (2014:218) and Guthrie (2010:45), the mixed methods strategy eliminates the disadvantages and limitations of the different methods. In practice the “mixed methods” strategy is more complex and develops innovative research procedures (Cresswell, 2014:218).

The researcher used inductive reasoning for the mixed methods strategy as the research focused on the specific, such as the food security-related SRCS projects, and then moved to the more general, the sustainability of the SRCS projects (Delpont & De Vos, 2003:52). Specific occurrences in the data were used to draw tentative generalised conclusions about the SRCS projects. The researcher reasoned creatively and incorporated scientific knowledge (Delpont & De Vos, 2003:53). As this study is a case study, generalisation was not the purpose (Nieuwenhuis, 2010b:76) but to obtain a better understanding of the SRCS projects’ sustainability.

Throughout the case study, the mixed methods were used to obtain data of the SRCS projects’ objective where the quantitative as well as the qualitative instrument were suitable. The quantitative instrument was used to quantify the previously implemented projects’ (2010-2011) activities as well as the current SRCS project leaders’ responses (2011-2012), which include numeral data from pre-determined responses. Secondly, where the qualitative instrument was most valuable to the study subjective, the instrument was used to qualify community project members’ perceptions and opinions from emerging responses (Cresswell, 2014:15; Guthrie, 2010:46; Ivankova *et al.*, 2010:263). The procedures expanded the mixed methods as the data

obtained from the one phase were used to sample projects and support data obtained from the emerging phase (Figure 3.2).

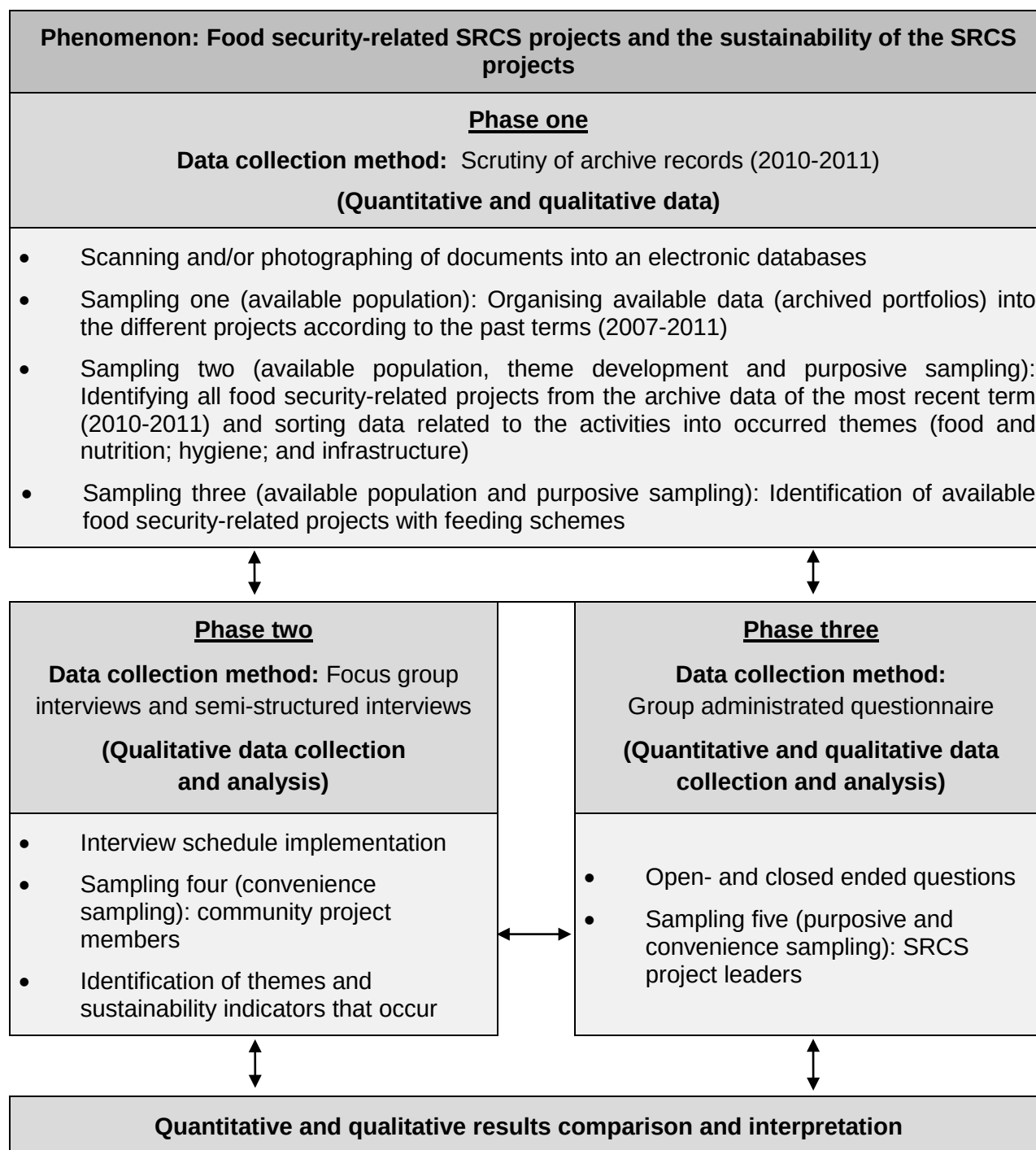


Figure 3.2 Mixed methods design applied in this study

Thus, the data from the one method were used to explain or interpret data from another method in which other types of questions were explored (Creswell, 2014:15). When the data were integrated a more accurate reflection was obtained.

Furthermore, the triangulation mixed method design was used (Figure 3.2). This design was suitable as the researcher collected both quantitative and qualitative data during the different phases of the research about the specific phenomenon. At the same time (term), the data could be integrated, compared and contrasted (Cresswell, 2014:15; Ivankova *et al.*, 2010:268). The disadvantages of the use of triangulation are that it is challenging to collect, to analyse and to compare the different databases (Ivankova *et al.*, 2010:269). In this study, the data were collected in three phases in which a background and foundation were created from a compiled archival database (phase one), and the collected data from the interview transcriptions (phase two) and questionnaires (phase three) were compared. The advantage of such comparisons is that the validity of the data increases.

A pragmatic worldview was used to collect data as the researcher assumed that a more complete understanding of the research problem could be obtained (Cresswell, 2014:19). The mixed methods provided two different ways of viewing the world (Nieuwenhuis, 2010a:51). The qualitative research described and understood the phenomenon as it naturally occurred and the quantitative research focused on the measurement of the phenomenon. Thus, the researcher took ontology as well as epistemology in consideration (Nieuwenhuis, 2010a:52). Ontologically the reasoning was more focused on the methods used in the research and the relationship between the research and the community, including the SRCS organisation. Epistemology focused on how community project members and the SRCS project leaders know the reality of sustainability by exploring their experiences. The research was conducted with a post-positivist perspective which is suitable with a pragmatic worldview (Nieuwenhuis, 2010a:65). This perspective considers the concerns of an interpretivist which is more objective and quantification, but also focuses on the aspects from a positivism, which is more subjective and qualification. Thus, the researcher focused on the systematically proved results as well as attitudes, experiences, and perceptions from individuals.

3.3 SAMPLING

The study was conducted in three different phases in which the non-probability sampling method was used throughout. This sampling method was appropriate as no random selection of the population took place (Ladher & Botha, 2012:89; Maree & Pietersen, 2010c:172), however projects were selected according to the purpose of the study. The purpose slightly varied between the different phases, but all contributed to the achievement of the aim of this study which was to promote sustainable development of community projects. The researcher operated through the SRCS organisation, thus had access to the whole population which included: all the SRCS documentation of the past terms, their community projects and the SRCS project leaders.

3.4 DATA ANALYSIS

The qualitative and quantitative data obtained from the different phases, were first analysed separately within the phase and thereafter further interpreted and compared to the data from the other phases (Creswell, 2014:222). Throughout, the researcher used inductive data analysis to identify the multiple realities from the data (Maree & Van der Westhuizen, 2010:37). Further, the researcher acted as an interpretivist to obtain the best possible understanding of the phenomenon. The challenge with using the mixed methods strategy is to unify accurately and interlink the data. When divergence in the data occurred, the researcher referred back to the data analysis and further inspected the data to seek for information within the data that may resolve the differences (Cresswell, 2014:223). The data analysis of each phase is provided under the specific descriptions.

3.5 CREDIBILITY AND TRUSTWORTHINESS

A literature study was conducted and it was clear that sustainability of community based projects lacked continuity. In addition, the literature indicated that a project may become unsustainable leading to greater food insecurity when a supporting organisation withdraws from a project. This research was done in such a manner that it can be repeated and would deliver similar results (Babbie, 2010:150). The sustainability of the SRCS projects that was intended to be assessed will be more accurately reflected (Babbie, 2010:153), but there may be some threats to validity. When the sample sizes are not the same the qualitative data may be limited towards the quantitative data (Cresswell, 2014:223).

The research mostly consists of qualitative data which are referring to the credibility and trustworthiness of the data and can be ensured by the use of different sources of data from the triangulation method (Kawulich & Holland, 2012:243; Nieuwenhuis, 2010b:80; Nieuwenhuis & Smit, 2012:137). Thus, the data from the different phases were analysed, individually and back-and-forth to ensure the validity and reliability of the quantitative data and the credibility and trustworthiness of the qualitative data obtained through the different phases. The trustworthiness was also ensured by the confirmation that the data were derived from the research activities and not only from the interpretation of the data (Kawulich & Holland, 2012:243).

The original forms of the data were kept that ensured the transferability of making similar interpretations and conclusions (Kawulich & Holland, 2012:243). Well-validated conclusions could be drawn after the conduction of this study, as the quantitative and qualitative data were compared (Ivankova *et al.*, 2010:268). The researcher followed-up on the conclusions that were diverse which increases the validity thereof (Creswell, 2014:223), but because the people

included in the samples were not the same (project leaders and community project members) and had diverse roles within the community projects, the differences do not compromise the validity of the study. The use of different concepts in the different data collection methods makes integration difficult (Creswell, 2014:223), but there were specifics that could be compared.

3.6 ETHICAL CONSIDERATIONS

With the commencement of the study the researcher identified the research problem that benefitted the participants, their community projects and the SRCS organisation (Cresswell, 2014:93). The study forms part of social research which, according to Punch (2011:276), is more likely to intrude peoples' lives. Therefore, the researcher presented the research proposal to a group of researchers and specialists in the School of Consumer Sciences (NWU) and the African Unit for Trans-disciplinary Health Research (AUTHeR), who further gave suggestions to improve the research approach. The research proposal of this study was further reviewed by the Health Research Ethics Committee of the North-West University (HREC, NWU) (Creswell, 2014:95) and ethical approval was granted after all the ethical aspects were considered (NWU-00040-13-A1).

The researcher operated through the SRCS, a non-profit organisation of the North-West University (NPO002-000, NWU), as an independent researcher and obtained permission from the NWU archive department (phase one) and relevant individuals as required. The NPO enabled the researcher to gain access to the community project members (phase two) and the SRCS project leaders (phase three).

3.7 PHASE ONE

3.7.1 Research approach

Within the first phase of the study (Figure 3.2) the researcher collected and used qualitative and quantitative archive data to create a background of each of the SRCS projects, their activities and programmes that were carried out. The quantitative approach was suitable as a logical and objective process was carried out with the use of numerical data gathered in an open and direct manner (Lune *et al.*, 2010:284; Maree & Pietersen, 2010a:145; Rousseau, 2003:23;). The rationale of a quantitative approach was to develop a structure for the collection and the analysis of data (David & Sutton, 2011:204). The quantitative data that were obtained included demographics of the projects and information on the programmes and activities that were carried out. This data were further used to identify the SRCS projects whose documentation were included in the NWU archives, from September 2006 until August 2011; the projects

addressing food security; and more specifically from these projects, projects with feeding schemes (Figure 3.2).

The qualitative data from the NWU archive include subjective information as reported by the SRCS project leaders, for evaluation, and the community project contact person, during evaluation. This information is included in their official reports and can, therefore, be investigated as qualitative documents for this study (Creswell, 2014:190). This approach was suitable when additional information were required to explain the data from phase two and three. The archive collected data was non-scientific and included primary and secondary data which were compiled by previous project leaders for assessment purposes only. Primary data included process reports, personal correspondence, evaluation documents and photos, whereas secondary data included newsletters and newspaper articles (Guthrie, 2010:100). The researcher mainly focused on the primary data as the secondary data had limited validation (Guthrie, 2010:100).

3.7.2 Sampling

During phase one the researcher developed an electronic data base from all the SRCS projects' (population) documents available in the NWU Archives from the past six years which included five terms, from September 2006 until August 2011. The population included day care centres, pre-schools, primary schools, secondary schools, and contact projects which collaborate with other projects. Purposive sampling was used as a certain purpose was kept in mind (Maree & Pietersen, 2010c:178). The researcher decided which group of individuals should form part of the study to achieve the aim of the study (Strydom & Venter, 2003:207). For the purpose of this study the projects from the most recent SRCS term (2010-2011) were sampled with the use of an inclusion criterion of only food security-related projects which were determined by first identifying themes of food related activities that were carried out. These themes that addressed food security included food and nutrition; hygiene; and infrastructure and appliances.

Purposive sampling continued with the sampling of all the food related projects with feeding schemes. The projects with feeding schemes were suitable as these projects mostly addressed the themes as identified and serving food is one of the projects' daily activities. All the identified projects have been used for further assessment, thus there was no study sample for this phase, but the whole population was being used. The sample is not representative of all the SRCS projects, but it is representative of the projects that are food related and have feeding schemes.

3.7.3 Data collection

During the first phase of the study, the researcher developed an electronic data base of all the available SRCS projects documentation stored in the NWU archive (September 2006 until August 2011). The archive documentation consisted of portfolios and evaluation forms that were compiled after each term by each project leader. The researcher used this data to compile an electronic database through scanning and/or photographing the documents. Documents that were unable to be scanned were photographed. The electronic database makes the data more easily assessable and practical for the conduction of research projects or the preparation of future project activities and programmes.

The data collection method was further purposed to identify the community projects which address food security in their programmes and/or activities, as well as those with feeding schemes for further assessment. Thus, this phase forms the foundation for the rest of the study, as well as future research and can, therefore, be seen as the desk study from which some challenges may emerge. Documents may be stored away and can be difficult to measure their completeness, but it was still beneficial as one of the research techniques in this study (Guthrie, 2010:100). When this phase was carried out, the researcher complied with the procedures and policy of the NWU archive department when working with the documentation.

3.7.4 Data analysis

The SRCS archive data from phase one that included data from September 2006 until August 2011, were organised according to the project names and different terms. The documents from the most recently stored SRCS term (September 2010 until August 2011) were further studied and focus was drawn to food related activities which were also the research topic of the study. From all the activities done at the community projects during this term, the researcher identified food security-related themes which frequently occurred. Thus, thematic analyses were done with the collected SRCS data as from the purpose of the study. The themes related to food security included: food and nutrition; hygiene; and infrastructure or appliances. Projects with feeding schemes were sampled from this analysis for further assessment in the second phase.

Data included in the portfolios for assessment at the end of each term were useful as it identified the recent aspects addressed, personal experiences and situations, as well as the background of what has been done at the community projects (Guthrie, 2010:99). Data were also further scrutinised when the results of the different phases were compared and interpreted to provide valid reasons for the findings.

3.7.5 Validity and reliability

Numerous possibilities for research projects may occur with a large range of the available data (Guthrie, 2010:100). In this study the available data were stored in archives in the form of portfolios which consisted of both primary data and secondary data. Primary data included process reports, personal correspondence, evaluation documents and photos and were carefully analysed for validity and reliability (Guthrie, 2010:100). The available data was non-scientifically purposed and collected for the SRCS organisation (Guthrie, 2010:101). Even though this data is non-scientific, the data were objectively evaluated by consultants trained in the field of social work.

Secondary data, such as newsletters and newspapers, may have limited validity but participants (phase two) and eyewitnesses can add validity of reportage (Guthrie, 2010:100). Further, the archive data gathered may be incomplete as the filing process may be work in progress and misfiling may occur (Guthrie, 2010:101). Thus, the researcher captured the data from the terms of which the filing of the data were concluded. The files that have been misfiled were remedied in the electronic data base under the relevant terms. Further, the researcher also conducted interviews (phase two) which gives the available archive data more validity (Figure 3.2).

The misinterpretation of data was prevented as the researcher was not selective towards the interpreted data (Nieuwenhuis, 2010b:83). Thus, the researcher included all the archival data (September 2006 until August 2011) in the electronic database and further studied all the data from the most recently stored term (September 2010 to August 2011) and from this term the sampled food related projects, including those with feeding schemes.

3.7.6 Ethical considerations

During the first phase, the researcher complied with the rules, procedures and all aspects included in the policy of the NWU Archive Department when collecting data from the archive documentation. The compiled electronic database was passed on to the NWU archive department which is responsible for storing all the previous SRCS documentation. Thus, researchers and SRCS project leaders now have easy access to the electronic data base which may assist them in future research and planning of projects. The researcher treated the data as confidential and only used the data for research purposes.

3.8 PHASE TWO

3.8.1 Research approach

During the second phase of the study a qualitative approach was carried out (Figure 3.2) with the conduction of focus groups and semi-structured interviews. This approach could not give precise findings, but an emerging reality was described and analysed (Nieuwenhuis & Smit, 2012:138). The qualitative data collection methods were appropriate as they were used in combination with other quantitative methods, during phase one and three (Figure 3.2), in the interpretation of the data (David & Sutton, 2011:119; Guthrie, 2010:118; Nieuwenhuis & Smit, 2012:134).

3.8.2 Sampling

All the available food security-related projects with feeding schemes (population), identified in phase one (purposive sampling), were further used in the second phase. The non-probability, convenience sampling method was used as all available and active community project members that wished to partake were invited. This method was suitable as the participants were easily and conveniently available (Laher & Botha, 2012:92; Maree & Pietersen, 2010c:177). People that were available and willing to participate were sampled (Ladher & Botha, 2012:89). In this study the projects selected for the assessment included schools and centres which followed a specific programme as provided from the government. Thus, the use of convenient sampling made it possible for the researcher to prevent any interference with projects' daily routines and to ensure that participants have a positive attitude towards the research that optimised the collected data. It is required that the researcher interact with the participants to avoid bias. The disadvantage of using this sampling method is that it is still susceptible towards a non-response bias (Ladher & Botha, 2012:89).

3.8.3 Data collection

In the second phase of the study, focus group and semi-structured interviews were conducted with the identified projects' community members. The purpose of this method was to assess their experiences with the involvement of the SRCS at their projects. Further the methods were used to assess the community project members' opinions towards sustainability. The method used was determined by the community project members available and involved at the projects during the visit. Thus, in some cases where there was only one representative from the project, a semi-structured interview was conducted. The same structured interview schedule was used with the conduction of focus groups where more participants were available. These data collection methods were effective as questions could be explained to community project

members who found it difficult to understand (Maree & Pietersen, 2010b:158). Furthermore, these methods have the highest response rate and it is not problematic if the interview schedule or questions are lengthy. Assistance was given to the participants who found it difficult to understand certain concepts (Maree & Pietersen, 2010b:158), but no manipulation of the data took place.

Interview arrangements were made through the SRCS organisation who communicated the times and dates to the community project members as convenient for them. The SRCS project leaders often communicated and visited their projects and thus have created and increased the trustworthiness between the organisation and the community. Therefore, the community project members had a positive attitude towards the research and this simplified the access to the community projects.

The semi-structured interview required participants to answer predetermined questions and allowed participants to explain their responses (Creswell, 2014:14; Nieuwenhuis, 2010b:87). These questions introduced and defined the direction of the information needed (Nieuwenhuis & Smit, 2012:134) and included unstructured and open-ended questions as the researcher identified new, relative emerging lines as they occurred (Cresswell, 2014:190). Similar to this method, the focus group interviews provided rich and detailed data through a range of responses (Nieuwenhuis, 2010b:90). Participants were also asked the same set of semi-structured questions on which they built on each other's responses and debate or argue about (Nieuwenhuis & Smit, 2010:135).

The focus group interview questions were kept to a minimum including four main questions, which elicited the views and opinions of participants (Creswell, 2014:190). With the conduction of these methods, a translator assisted the researcher and community project members where translations were needed to exclude the possibility of the language barrier, which could lead to misunderstandings. A natural flow of the interviews were created, standard introductions and conclusions were made and participants were granted the opportunity to ask questions (David & Sutton, 2011:120; Guthrie, 2010:120).

The interviews were conducted with the use of an interview schedule which consisted of an opening, body and a closing which served as guidance and prevented the researcher from getting side-tracked (Nieuwenhuis & Smit, 2012:133). All the interviews were audio-recorded for transcription purposes after consent was given from the participants. In the opening of the interview, the researcher and the translator were introduced, the purpose of the study was explained, gratitude for participation was revealed, the participants were informed of the duration of the interview, confirmation of signing of a consent form was done, and participants

were given the opportunity to ask questions before the commencement of the interview. The body of the interview contained questions based on the SRCS's involvement; skills and competences; sustainability; and important aspects of sustainability. The closing of the schedule concluded the interview and provided another opportunity for questions.

Observations, such as the behaviour of the interviewees, were captured in the researcher's field notes (Guthrie, 2010:112) for which a column was provided on the interview schedule and transcript (Creswell, 2014:95). The researcher observed verbal and non-verbal behaviour (Nieuwenhuis, 2010b:86). After the observation period had passed, the details were filled in between the notes as to what had been observed while these were still fresh in the memory of the interviewer.

3.8.4 Data analysis

Shortly after the conduction of the interviews in phase two, the researcher transcribed the responses from the audio-recordings. Thematic analysis was conducted and was suitable as the researcher wanted to understand the study phenomenon (Figure 3.2) by investigating the different community project members' experiences towards the phenomenon (Kawulich & Holland, 2012:231). Thematic analysis was done with this qualitative data as from the purpose of the study and the theoretical context (Kawulich & Holland, 2012:228). Thus the researcher made use of literature proven sustainability indicators to identify the themes and recognised the aspects related to these themes. These were identified from the transcriptions by the researcher and two different independent researchers. These themes were also further used in the development of the group administered questionnaire (phase three) (Figure 3.2).

3.8.5 Credibility and trustworthiness

This phase forms part of a mixed methods approach which ensures the trustworthiness of the obtained data (Nieuwenhuis, 2010b:80). With the sampling of the projects (phase one) for the conduction of the focus group interviews and the semi-structured interviews (phase two) (Figure 3.2) a criteria was used to sample the study population. This increases the validity of the study as the selected projects and participants form part of a group with specific characteristics (Neuman, 2007:118) which include only food related projects with feeding schemes and their involved community project members. As the description of the participants were critical, the study is externally valid towards the sample and this means that the results could be generalised towards the population (food related projects with feeding schemes) (Maree & Van der Westhuizen, 2010:37). The observations and field notes were made during phase two which also improves the validity of the data found in the previous phases

(Guthrie, 2010:108). The researcher and two independent researchers separately selected and compared themes as they occurred in the interview transcriptions. The trustworthiness of the data is thus increased when the correct interpretation thereof is ensured (Nieuwenhuis, 2010b:86).

3.8.6 Ethical considerations

The researcher compiled a consent form which informed the participants about the aim and contribution of the study, duration of the interviews, and also ensured them of their anonymity and privacy. The consent form was also used to gain the permission of the participants, regarding any invasion of their privacy (David & Sutton, 2011:47). No incentive was given to participants as it is in contradiction with project sustainability.

Feedback was given to the SRCS community project members whose projects were visited, in writing and explained by visiting the project for the second time, and further feedback will be given to the SRCS organisation in a formal meeting, for future development and improvement of community projects. The data which included the consent forms, the interview schedule and field notes, audio recordings, and transcriptions were stored according to the regulations of the North-West University, Potchefstroom.

3.9 PHASE THREE

3.9.1 Research approach

Within the third and final phase of the study, a quantitative and qualitative approach was implemented through the use of a group administered questionnaire. The questions consisted of a quantitative part, with set responses, and a qualitative part, that obtained additional information required (Maree & Pietersen, 2010b:161).

3.9.2 Sampling

In the last phase, purposive and convenience sampling continued to sample the SRCS project leaders. The sample included all the conveniently available SRCS project leaders from the past term (2012-2013) that have been responsible for the involvement of the SRCS at community projects.

3.9.3 Data collection

In phase three of the study data were collected with the use of a group administered questionnaire. This questionnaire was aimed to assess the past term's (September 2012 until August 2013) project leaders' knowledge and understanding of project sustainability. With the group administered questionnaire a group of respondents were brought together and were requested to complete the questionnaire individually (Mentz, 2012:101). The advantage of using this method is that it is convenient to collect the data simultaneously from a group of respondents. The researcher is also ensured of the responses of those present and the researcher is able to clarify uncertainties within the questionnaire to the respondents if it occurs (Mentz, 2012:101).

The disadvantage of using this method is that it is seldom that a group of respondents can be brought together at the same time (Mentz, 2012:101). The researcher electronically invited the previous SRCS project members through an e-mail scheduled meeting. The SRCS also communicated this to the project members through a text message sent via an automated system (Impi). The ideal setting for conducting such a questionnaire is at a university (Mentz, 2012:101). Thus, in this study the researcher conducted the questionnaire in one of the NWU seminar rooms. Another disadvantage of this method is that the researcher is unable to obtain additional or clarified information from the respondents (Mentz, 2012:101). Thus, the researcher made use of the mixed methods approach to eliminate this disadvantage. A combination of close-ended and open-ended questions were included. Close-ended questions consisted of four point Likert scales which facilitated a set of responses (Maree & Pietersen, 2010b:167). The close-ended part of the questions included the phrases: "Please provide a reason for your answer" and "Please specify". This gave respondents the opportunity to clarify why they have chosen or have not chosen a specific response.

3.9.4 Data analysis

In phase three, quantification was done on the close-ended questions and qualification on the open-ended questions of the questionnaire (David & Sutton, 2011:120). The quantitative data obtained from the questionnaire were analysed through the programme Statistical Package for Social Science (SPSS) together with the assistance of the Statistical Consultation Services (SCS) of the NWU. Descriptive statistics included frequencies, percentages, means and standard deviations (Maree & Van der Westhuizen, 2010:39). Further relationships were determined by the Spearman's correlation coefficients and p -values (2-tailed).

3.9.5 Validity and reliability

After the researcher had compiled the group administered questionnaire in the last phase, it was screened by the SCS of the NWU to ensure the face validity and analysability thereof. In addition to this, the questionnaire was also reviewed by two subject specialists which contributes to the internal validity of the questionnaire (Maree & Van der Westhuizen, 2010:37), increasing the validity of the study valid (Maree & Van der Westhuizen, 2010:39). External validity was obtained through the specific criteria to sample respondents, SRCS project leaders from the term 2012 to 2013, and the content, sustainability aspects and food related projects (Maree & Van der Westhuizen, 2010:37). In the questionnaire the respondents were also requested to provide specifications and reasons for their answers which also increased the validity thereof (Guthrie, 2010:131). Close-ended questions as well as open-ended questions were asked in the questionnaire, thus the answers thereof were more reliable (Guthrie, 2010:110). The triangulation mixed methods design also increased the reliability as the qualitative and quantitative data from the different phases were compared, and conclusions and interpretations were made (Maree & Pietersen, 2010:38).

3.9.6 Ethical considerations

During the last phase of the study the SRCS project leaders were requested to complete a group administered questionnaire. Participation within this phase of the study was voluntary and respondents could withdraw from the study at any stage. An informed consent form was completed by each respondent that voluntarily agreed to partake in the questionnaire. The consent form included the title of the study, the aim of the study as well as that of the questionnaire. Respondents were also informed of the research procedures. The collected data were handled and stored confidentially and only members of the research study had access to the data. The published data, from the dissertation, does not contain any personal information, thus ensures respondents of their anonymity. Respondents were also informed of the approximate duration of the completion of the questionnaire (15-20 minutes). The contact details of the research group (researcher and supervisors) were provided which respondents could contact should they require more information. The researcher gave feedback to the management of the SRCS organisation through means of a study presentation.

3.10 CONCLUSION

Within this chapter, the researcher included the strategy developed for the study data collection processes. The specific phenomenon namely the SRCS food security-related projects with feeding schemes and the sustainability of the SRCS projects in general were investigated. Research mixed methods with inductive reasoning and a triangulation design were used. A

pragmatic worldview was further used to obtain an understanding of the research problem. Ontology and epistemology were considered with a post-positivist perspective. The researcher gave an overview of the study approach, sampling, data analysis, credibility and trustworthiness, and ethical considerations. Thereafter these were also discussed in detail for each of the three study phases as both qualitative and quantitative methods were being used. Where qualitative data were obtained the credibility and trustworthiness were explained, and with quantitative data the validity and reliability were explained.

The phase one archive data, developed in an electronic database, that were based on the programmes and activities were used to identify the food security-related projects with feeding schemes. These projects were further investigated in phase two. The quantitative data included numerical data gathered from implemented programmes and activities, and identified needs. The qualitative data included project demographics, and feedback provided on programmes and activities. The results from the focus groups and semi-structured interviews in phase two were further used to develop the questionnaire in phase three. Both open- and close-ended questions were included to ensure that responses were clarified.

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CHAPTER 4: RESULTS AND DISCUSSION

4.1 INTRODUCTION

Assessment of the sustainability of food security-related projects of the Student Rag Community Service Potchefstroom, North-West University was conducted in three phases namely: compilation of an electronic database, and identification of food security-related projects (phase one); assessment of community project members' experiences with the SRCS's involvement in the projects and their opinions of project sustainability (phase two); and the SRCS project leaders' knowledge and understanding of project sustainability (phase three). The results from these phases are discussed in this chapter.

The first phase provided the researcher with information based on the SRCS projects over five years, including four terms. This was used to compile an electronic database for future reference and for this study to identify food security-related projects from which five projects with feeding schemes were identified to be assessed. These projects were selected based on their food security-related programmes and activities, including their daily food preparation function. The second phase was based on these identified projects where the researcher visited the projects and held focus groups or semi-structured interviews with the involved community project members at the projects. To assess further the findings in phase two, the researcher carried out a group-administered questionnaire. All three phases were used to obtain an overview of the SRCS's sustainability of community projects.

4.2 PHASE ONE: ELECTRONIC DATABASE AND FOOD SECURITY-RELATED PROJECTS

In the first phase of the study there were two objectives that were addressed. The first objective was to compile an electronic database from the available SRCS projects' documentation stored in the Institutional Archive Museum (NWU) for four terms (five years), from September 2007 until August 2011. This database forms the foundation of the study. The second objective was to identify those community projects which address food security in their programmes and/or activities with further identification of projects with feeding schemes. The following section will discuss the results from the research that was performed to achieve these two objectives.

4.2.1 Compilation of an electronic database

All the available SRCS projects' data stored in the Institutional Archive and Museum (NWU) were compiled into an electronic database by scanning hardcopy documents into the intended Portable Document Format (PDF). Documents that could not be scanned, due to their format,

were photographed. The collected data consisted of five years' SRCS documentation including four SRCS terms (September 2007 until August 2008; September 2008 until August 2009; September 2009 until August 2010; and September 2010 until August 2011). All the scanned documents were titled and organised according to their content and the term to which they belong.

The collected data were unprocessed and consisted of SRCS project portfolios and evaluation documents. Portfolios were compiled by the SRCS project leader after each term for assessment purposes and for their record keeping rather than for research purposes. Standard assessment documents were used which were compiled and administered by the SRCS management and consultants. These assessment documents did not have specific measurements which made it difficult to identify successful, sustainable and/or specific types of projects. As an outcome of this study, the electronic database may be used for future research, which may emerge from several subject fields.

This study focused on the electronic archive data from the most recent SRCS term (September 2010 until August 2011) due to the extent of all the documents. Data of 48 community projects were captured. The portfolio information mostly used as foundation came from the project with project descriptions, need assessments, vision and mission statements, and the programmes which included the project activities (Figure 4.1). This information was included under the specific phases as being used.

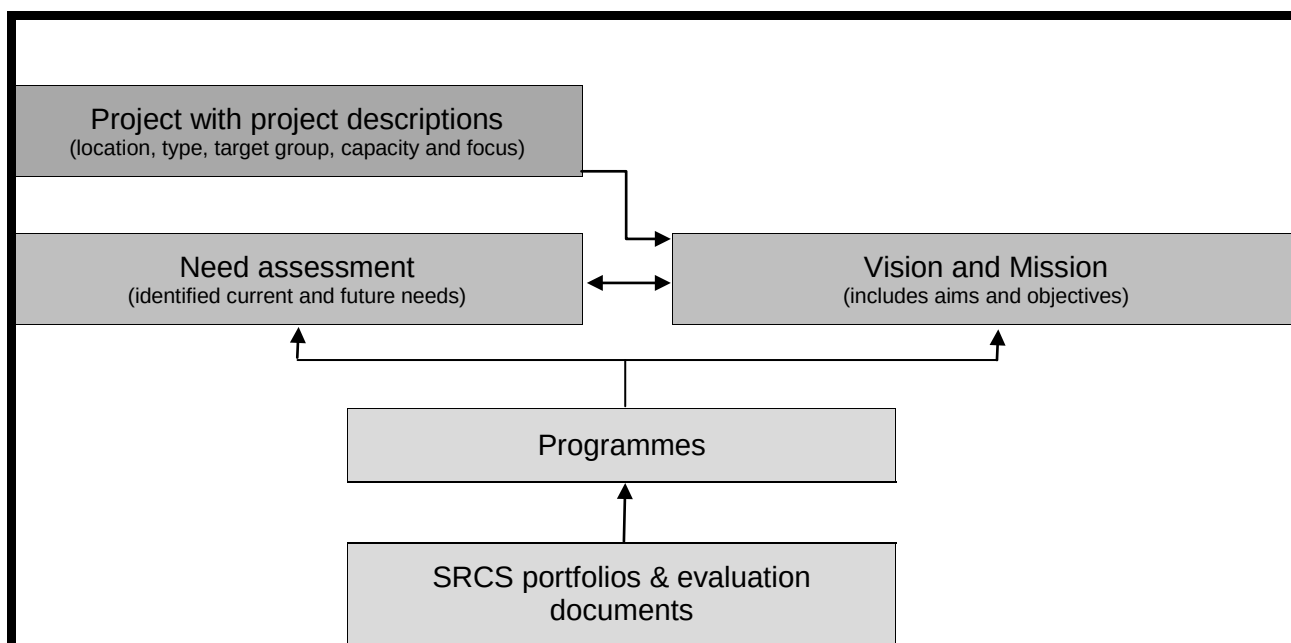


Figure 4.1 Information from project portfolios and evaluation documents used as project data

4.2.2 Scrutiny of an electronic database and identification of food security-related projects

Since some of the SRCS programme activities address food security, the assessment of the sustainability on such projects became vital. This study firstly focused on the sustainability of community projects with a further focus on food security-related projects, as from the motivation from this study such projects, when unsustainable lead to greater food insecurity in the future. The 48 projects' documentation were scrutinised and 21 food security-related projects (44%) were identified according to the relevant activities and/or programmes carried out at the projects.

These projects' activities addressed the following related to food security: food and nutrition; hygiene; and infrastructure and appliances. Furthermore, food security-related projects with feeding schemes were identified as one of their daily activities is the provision and preparation of food. When such projects are unsustainable, the basic need for food cannot be maintained. Seven projects with feeding schemes (7/21) were identified where students are actively involved on a weekly basis. Five of these projects (5/7) implemented feeding schemes at their school or centre and students visited projects. Two projects (2/7) were not included in the assessment, because they were consultation programmes function mainly in a supportive capacity.

Feeding scheme projects' community members are involved and one or two meals are served daily. It was indicated that food supply came from vegetable gardens (14/21), food hand-outs (16/21) and nearby supermarkets (21/21). There was no specific information included with regards to the functionality of the feeding schemes as the projects were driven by the projects themselves and not initiated, but supported by the SRCS.

The total activities of the 21 food security-related projects as well as the descriptions of the target group and activities of the five identified feeding scheme projects that were included in the study are tabulated (Table 4.1). The student activities at the food security-related projects (n=21) are mostly associated with personal hygiene (17); food hand-outs (16); improvement or development of buildings (15); vegetable gardens (14); hygiene hand-outs (12) and smaller equipment or structure fixture or detachment (12).

Table 4.1 Summary of activities and needs associated with food security-related projects with feeding schemes

Feeding scheme projects (n=5)	Programmes Project target group (count)	Food security-related activities and needs														
		Food en nutrition					Hygiene				Infrastructure/ Appliances					Count
		Food preparation skills	Menu adjustments/planning	Nutrition education	Feeding scheme	Food hand-outs	Food hygiene: safe use of water	Food hygiene: food handling procedures	Personal hygiene: hand washing and cleanliness	Hygiene hand-outs (basic necessities)	Cutlery and crockery	Furniture (food preparation/storage/dining)	Equipment (detached and fixtures)	Improvement /development of buildings	Improvement/development of vegetable gardens	
	Total activities indicated by all food security related-projects (n=21)	1	9	6	7	16	2	7	17	12	6	7	12	15	14	
A	Physical improvement and hygiene Children 6 years or younger (n=110) Early Childhood Development, Day Care Centre		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		11
B	Education and hygiene School children (n=960) Child and Youth Development, Primary School				✓	✓		✓	✓		✓			✓		6

Table 4.1 Summary of activities and needs associated with food security-related projects with feeding schemes (continues)

Feeding scheme projects (n=5)	Programmes Project target group (count)	Food security-related activities and needs														
		Food en nutrition					Hygiene				Infrastructure/ Appliances					Count
		Food preparation skills	Menu adjustments/planning	Nutrition education	Feeding scheme	Food hand-outs	Food hygiene: safe use of water	Food hygiene: food handling procedures	Personal hygiene: hand washing and cleanliness	Hygiene hand-outs (basic necessities)	Cutlery and crockery	Furniture (food preparation/storage/dining)	Equipment (detached and fixtures)	Improvement /development of buildings	Improvement/development of vegetable gardens	
C	Project grounds renovation and tariffs improvement Children 6 years or younger (n=75-100) Early Childhood Development, Pre-Primary School		✓		✓	✓			✓				✓	✓	✓	7
D	Physical, hygiene and recycling School children (n=100-105) Child and Youth Development, Primary School				✓	✓			✓	✓			✓	✓	✓	7
E	Physical environment and health Disabled individuals nine to 39 years (n=1-25); Child and Youth Development & Vulnerable Adults, Day Care Centre				✓	✓			✓			✓	✓	✓	✓	7

The SRCS projects mainly focus on interaction with children. The five projects within the feeding scheme's target group focused on Early Childhood Development (ECD) (2), Child and Youth Development (CYD) (3) and Vulnerable Adults (VA) (1) (Table 4.1). The ECD projects included a day care centre and a pre-primary school. The day care centre's target group (n=110) and pre-school's target group (n=75-100) was children who were six years or younger. The CYD projects included two primary schools whose target groups were school children (n=960; n=100-105). One of the projects was focused on CYD and VA as their target group was disabled individuals between the age of nine and 39 years (n=1-25). The summary indicated that feeding scheme projects' programmes frequently included food security-related activities (Table 4.1). The detailed summary of the different activities and needs of each of the feeding scheme projects is included and discussed in the next section (Table 4.2).

4.2.3 Food security-related project descriptions: setting the scene

The information of the five projects with feeding schemes was obtained from the annual portfolios stored in the archives and compiled by each SRCS project leader. It included the project description and other information such as the project size, target group, facilities, and needs.

Project A

Project A was a Day Care Centre located in Promosa, the township area just outside Potchefstroom. The centre was managed by a local church that also sponsored the project building. Further, the centre cared for 110 children ranging from babies to children six years of age.

Project B

Project B was a primary school located in Ikageng and had 960 learners from grade R to seven. The learners were all Setswana speaking and came from underprivileged households in the area. The infrastructure of the project was in a poor condition and required maintenance. The project implemented programmes based on the feeding scheme, leadership, life orientation, sport development and recycling. The children had a great need for love and acceptance.

Project C

The project was a ten year old pre-primary school (2011) located in Ikageng, Potchefstroom. The SRCS had been involved at the school for the past four years. The school was managed by three teachers and a person who prepared food. All teachers were informally trained and frequently attend further training sessions. There were about 100 Setswana speaking children between three and six years old in the school. The children spend most of their time at the

school where they received two meals daily from the feeding scheme. Most of the school's income was spent on food and groceries. Student involvement addressed needs such as emotional, social, spiritual and physical needs, although the main focus was on the school's infrastructure. The school structure is a brick building that consisted of three classrooms, boys' and girls' bathroom, office, storeroom and kitchen, all covered with a temporary roof which needed continuous upgrading. The 2011 project leader indicated the poor condition of the school's vegetable garden. There was also a lack of grass on the school playground. The school ground had a few trees and a fence around the school.

Project D

In the archive documentation (2011) the project leader described project D as a primary school with 100 to 105 learners that monthly received one thousand rand government subsistence. The school implemented the prescribed Department of Education curriculum. The classroom to learner relationship was 1:35 which was seen as sufficient. The kitchen had limited facilities to prepare food, but the feeding scheme provided children with one meal daily. The bathroom was in a poor condition and needed attention. Further, the outside area had much potential for physical development. The school was secured with a wired fence around the school, but there were no burglar bars at the windows.

Project E

Project E was a Day Care Centre, for children and adults with mental, emotional and physical disabilities. The centre was established by local community members from Ikageng, in the township area on the outskirts of Potchefstroom. Fourteen community volunteers were involved at the project and received no remuneration. Each volunteer had a specific role (care giver, accountant, cleaner or bus driver), but they all had a responsibility to take care of the children and adults. Minimum resources were available for food preparation. On average 22 disabled children and/or adults were accommodated. Daily transport was provided for them.

4.2.4 Identified programmes, activities and needs

The SRCS used the outcomes of the projects' needs assessment to compile the programmes for the specific term. The identified programmes and activities for the 2010/2011 term and the future needs for the 2011/2012 term, for the food security-related projects with feeding schemes, are indicated in Table 4.2.

Table 4.2 Food security-related programmes and activities implemented, and needs for new SRCS term for projects with feeding schemes (phase one) (n=5)

Project	Food security-related programmes	Food security-related activities and needs		
		Food and nutrition	Hygiene	Infrastructure and appliances
A	Physical improvement and hygiene	Operation of a feeding scheme Food hand-outs (canned foods)	Addressed personal hygiene Provision basic necessities (chemicals)	Improvement of bathroom and vegetable garden Provision of food preparation equipment Provision of a refrigerator
B	Education and hygiene	Operation of a feeding scheme Food hand-outs (porridge) Nutrition education Need for improved menu	Food hygiene: safe use of water and food handling procedures Awareness of personal hygiene and maintaining a healthy body	Provision of furniture (tables and chairs) Provision of mobile washing bins, stove and urn. Need for cutlery and crockery Need for geyser
C	Project grounds renovation and tariffs improvement	Operation of a feeding scheme Food hand-outs	Provision of basic necessities	Improvement of the sewerage system (new septic tank) Improvement of vegetable garden (low cost vegetables and fencing) Provision of baby chairs Need for kettle, microwave and garden equipment

Table 4.2 Food security-related programmes and activities implemented, and needs for new SRCS term for projects with feeding schemes (phase one) (n=5) (continues)

Project	Food security-related programmes	Food security-related identified themes (from activities)		
		Food and nutrition	Hygiene	Infrastructure and appliances
D	Physical, hygiene and recycling	Operation of a feeding scheme (needs improvement) Food hand-outs (canned and other foods)	Personal hygiene: hand washing Provision of basic cleaning necessities	Operation of a vegetable garden Need for cutlery Need for improved kitchen, eating area and toilets
E	Physical environment and health	Operation of a feeding scheme Foods hand-outs (canned and other foods) Need for improved menu	Personal hygiene: hand washing and personal cleanliness	Provision of refrigerator Improvement of school building Vegetable garden extended and maintained Need for stand for washing basin

CHAPTER 4: RESULTS AND DISCUSSION

Since the criteria included projects with feeding schemes all projects operated feeding schemes, but the SRCS was not directly involved within the feeding schemes. The SRCS's involvement was based on food security-related activities such as to food and nutrition; hygiene; and infrastructure and appliances (Table 4.2). These activities included food handouts; personal and food hygiene; provision of necessities and equipment; and improvement of buildings and surroundings.

Yearly at the SRCS's Canned Food Day event a multitude non-perishable foods are collected to be distributed at identified projects. Food handouts might have created expectation of the reoccurrence with every visit. Personal and food hygiene activities were related to: hand washing; personal cleanliness; personal health; the safe use of water; and food handling procedures. Furthermore, as the need occurred the SRCS provided projects with basic operational necessities, equipment and furniture. The improvement or development of buildings were often initiated by the SRCS's activities, but also outsourced to local businesses. In such cases the community project members were supportive, but not actively involved in the actual activities.

Some skills and knowledge transfer might have occurred with the implementation of these activities where community project members were involved. A gap occurred as these were not measured by using any scientific method for assessment. Thus the effectiveness and sustainability were uncertain from the archive documents. Furthermore, from these implemented activities future needs occurred such as menu improvement; nutrition education; basic necessities and equipment; and improvement of buildings (Table 4.2).

Although all five these projects had feeding schemes none of them addressed or identified food preparation skills in their needs assessment and also did not evaluate or mention the community project members' skills. This is seen as part of the human capital in the sustainable livelihood assessment (Niesing, 2012:47). Thus, there is a need that the assessment approach assesses community project members' skills to determine whether there is such an associated need.

Activities and needs raised a concern within this study that community project members are dependent and that expectations are created. The needs assessment process only focused on the inaccessible resources which did not make provision for future needs and should be reviewed by the SRCS to fulfil basic needs which promote sustainable development. According to a study done by Van Niekerk (2006:1033), a sustainable approach is to involve community project members to identify assessable resources through the livelihood assessment, instead of a limited focus on inaccessible resources.

4.2.5 Phase one: conclusion

The five years, which included four SRCS terms, of archive data presented extended but not necessarily comparable information on the different SRCS projects and their implemented programmes and activities. The researcher was able to compile an electronic database which outlined the available portfolio and evaluation information that can be used for future research projects. In this study 48 SRCS projects were scrutinised which included 21 food security-related projects which addressed the themes: food and nutrition; hygiene; and infrastructure and appliances. Five of the food security-related projects were identified as projects with feeding schemes to be further assessed. Archive data included basic information with regards to the implemented programmes and activities, but the impact and sustainability was uncertain as no clear measurement was being used. The success of the projects was generally described based on personal experiences and opinions of the SRCS project leader. Based on the summarised data it seemed that projects relied on hand-outs and reflected limited community member involvement and skills transfer during activities, thus the aspects of sustainability of specific programmes were uncertain.

4.3 PHASE TWO: FOCUS GROUPS AND SEMI-STRUCTURED INTERVIEWS

During the second phase of the study community project members' experiences with the involvement of the SRCS at their projects were investigated and members' opinions towards sustainability. To achieve these objectives the community project members were questioned during focus groups (four to nine participants) or semi-structured interviews (one participant) depending on their availability.

The participants were volunteers or employed by the project, and contributed to the project being a care giver, educator, cook, headmaster or chairperson. It was clear from the discussions that some participants were involved in the projects for many years. An immediate impression gained by the interviewer on arrival was that the SRCS community contact persons could be easily identified as these individuals were outspoken and used to be the headmasters or chairpersons by position, and it was noted that the other community project members showed respect towards them. It was also observed that some of the community project members appeared to be reserved initially, but became more involved during the discussions.

4.3.1 Interview field notes: setting the scene

The researcher made field notes on the outstanding characteristics or experiences at the five identified projects from phase one. The observations made, supported the archive project descriptions.

Project A

The centre building consisted of a large hall with room dividers where activities mostly took place, and a separate kitchen where the feeding scheme food was prepared. The centre only had a small outside area. Four community project members participated in the discussions. Children of different age groups were all grouped together on a small carpet and watched television during the interview. During the interview the children became restless and care had to be provided to the children by the community project members.

Project B

This project is a formal school environment with separate buildings and offices that allowed organised school practices. The school environment was also well maintained and secured. The headmaster, who was also the community contact person, was interviewed.

Project C

The school had a well established vegetable garden and green grass at the playground. The activities took place in an organised manner. The researcher experienced the community project members as dedicated and motivated towards their work. A focus group was held with four community volunteers of the project in one of the classrooms. The children respected their teachers and enjoyed being in the presence of the SRCS members.

Project D

This project was a primary farm school located in the outside rural area of Potchefstroom. The school had a well established vegetable garden and cleanliness was maintained on the school ground. The interview was held with the community contact person who was also the headmaster. He explained that the school was a government funded project, that they struggled to keep up with the work load and that the school had a lack of infrastructure. The SRCS project leader also informed the researcher about this and that the SRCS activities were currently put on hold to allow the school to focus only on normal school activities. Prior to the interview, the SRCS management indicated that the focus of the future SRCS involvement at the project might change from an environment focus to an academic focus.

Project E

The project was located in the industrial site of Ikageng, Potchefstroom and the researcher was informed the project had a vegetable garden based at an agricultural college site. The surrounding area prevented the project to develop a vegetable garden on site as it was not securely fenced. The project had a large building with a living or activity room where most of the activities took place. Nine community project members were involved in the interview. During the interview the SRCS members took care of the project individuals.

The responses from the focus group and semi-structured interview questions, which were included in the interview schedule (addendum A), were transcribed and individually studied by the interviewer and two other independent researchers. These responses were discussed according to the overarching themes, concepts, and sub-concepts (Table 4.3) as well as the sustainability indicators (Table 4.4) further in this chapter. The following themes were predetermined based on the previously mentioned phase objectives and interview schedule that aimed to meet these objectives:

- Experiences of community project members
- Opinions of community project members regarding their skills and competences
- Sustainability awareness and defined by community project members
- Important aspects considered for sustainability by community project members
- Measuring sustainability of projects against sustainability indicators

Sub-concepts were further highlighted as the emphasis where placed on the importance thereof (Table 4.3).

Table 4.3 Summary of the concepts and sub-concepts discussed within the themes

Experiences of community project members		
1. Positive aspects	- Gratefulness	- Pride
2. Negative aspects	- Dependence - Lack of ownership - Frustration	- Time - Expectation
Opinions of community project members regarding their skills and competences		
1. Positive aspects	- Expected support - Obtained skills and competences	
2. Negative aspects	- Lack of skills and competences	
Sustainability awareness and defined by community project members		
Important aspects considered for sustainability by community project members		
1. Positive aspects	- Positive attitude towards the SRCS's involvement and activities - Identification of specific project needs and training opportunities - Personal commitment of community project members	
2. Negative aspects	- Dependence - Limited funds and community project members capacity - SRCS term duration - Lack of communication and teamwork	
Measuring sustainability of projects against sustainability indicators (Table 4.4)		
1. Human resources and management		
2. Skills associated with activities and management thereof		
3. Infrastructure and resources		
4. Financial aspect		

4.3.2 Experiences of the community project members

Community project members were questioned to explain how they feel about the involvement of the SRCS at their projects. Positive and negative aspects regarding student involvement in community projects could be identified.

4.3.2.1 Positive aspects

Positive aspects revealed, could mainly be divided into two sub-concepts namely gratefulness and pride towards the SRCS's involvement (Table 4.3).

Gratefulness

The overall attitudes of the community project members towards the SRCS were experienced as grateful (*"We are happy, because we can see that we are going forward with the university, they are helping a lot"*). It was clear that the community project members accepted the organisation within their community. They highlighted some of the outstanding programmes and activities that have been achieved (*"...previously they would paint the classes, it is positive you know..."*; *"Creative a convulsive atmosphere in the classes and they will do eh eh eh artwork with eh Grade R's, it is positive..."*) and they felt that the SRCS relieved some of their workload as they were able to assist with the children (target group) when visiting their projects (*"...when they come to use, we can give them some work. Maybe I will teach those and they the other, then they help us to play with the children and teach them many things"*).

Pride

The community project members positively experienced the involvement of the SRCS at the projects. Projects such as the development of vegetable gardens were seen as a community attraction which made them proud of their projects (*"I feel so proud and very happy when I see them here"*; *"...this project...it benefited us...if you can look at the pictures there..."*). According to Moller (2005:70), vegetable gardening enhances the appearance of a place which gave community project members a sense of pride. Lautenschlager and Smith (2007:249) also indicated that community members relished progress made in gardening projects.

4.3.2.2 Negative aspects

The following negative aspects were revealed from the interview discussions: dependence, lacking ownership, experienced frustration, time and expectation evolved. These aspects reflect negatively on sustainability.

Dependence

The participants' responses indicated that they are becoming dependant on the SRCS organisation (*"The students must help the school grow, I don't know how."*; *"Sometimes the food is finished today, tomorrow we will get food"*). The researcher further observed the community project members as being careful of what they say as they do not want the SRCS to withdraw from their project. Since some of the community project members associated the researcher with the SRCS, they wanted to know how they would benefit by participating in the research (*"...I wish you can help us where you can..."*; *"...how much is this going to help us...or to better it?"*). The researcher explained that the outcomes of the study will assist the SRCS to plan, implement and evaluate their programmes and activities to assist projects to become successful and sustainable.

Lack of ownership

Community project members had a lack of ownership over the SRCS programmes and activities. They were comfortable that the ownership is taken by the SRCS project leader and committee (*"...the beauty everyone sees, it is the input of the students..."*). Furthermore, the SRCS mainly involved the target groups (children), which sometimes excluded the community project members, of the different projects with the implementation of the programme activities. Although community project members supported the programmes and activities, and were part of the planning phase, they were not always as involved to the same extent as that of the target group with the implementation of the activities. These are of great concern as this might have lead to limited skills transferred and ownership, and may directly influence the long term project sustainability.

Frustration

During an interview a frustration was expressed towards improper planning associated with one of the projects regarding the inability to implement and sustain planned activities (*"...we identified maybe in the beginning of the year...then they put everything on paper, but at the end of the day those did not materialise and no one comes to me..."*) and the inability to plan activities before implementation (*"...students coming to the school...without a plan, phoning me in the morning"*). Proper planning was further identified as an important aspect of sustainability by community project members. The participant suggested that the SRCS should have quarterly or year plans of all the programmes and activities that they plan to implement at the school (*"So my input to this is, if we can have proper planning so that it could fit well into the school plan"*). It was also mentioned that when initial plans included in the SRCS programmes were not carried out at the project, no feedback was given to the community project members with regards to these expectations not being met (*"...no one comes to me and say: 'Mister we thought that we will put up all these water tanks and so on'..."*). Thus, the expectation created had a negative impact on the community member's attitude towards the SRCS. Community project members should therefore be included in the planning,

implementation and evaluation of the programmes to ensure awareness and sustainability thereof.

Time

Community project members experienced time as a barrier to participate and obtain skills and become competent (*"...I cannot answer you...straight forward. Why I say so is because the time, the time is the question."*). Proper planning, as mentioned above, with good time management may assist to overcome this barrier. Most of the SRCS projects were based at schools which used the prescribed departmental programme (CAPS). A participant indicated that they were teaching more than one grade per class and completing their programme was more time-consuming in relation to other schools with a well-developed infrastructure and community project members capacity (*"...we have multi-grade classes and then we have got seven hours to teach, for instance three combined classes compared to the people in the town and the locations."*).

Expectation

Depending on the activities that have been implemented, the involvement of the SRCS at the different projects appeared to create a further expectation of the SRCS to continue the support of the projects. Support included handouts (*"Sometimes the food is finished today; tomorrow we will get food again."*), infrastructure improvements (*"...then you can do many things outside..."*), and providing additional educational support (*"Let's do the maths homework, let's do the reading eh eh session, you know."*). Even though these activities or programmes were much enjoyed and appreciated by the community project members, the SRCS should prevent initiating plans that may create a great expectancy from them.

Plans were initiated through the needs assessment done at projects. Assessments mostly consisted of community project members that made recommendations or provided the SRCS with a "wish list" of what they would like to be done or need at the project (*"...they talked to me, they said: Don't you think that we must change it as it?"; "They will always ask...we are coming, can you give us list of things you want us to do..."; "...they ask first: 'What do you need as a centre?' So that they can buy help to buy something..."*.) The researcher experienced that this created an expectation from the community project members that the SRCS will fulfil their needs in the current and future terms which may also lead to projects that may become dependent on an organisation. Thus, the needs assessment approach that the SRCS follows should be adapted to prevent the organisation from creating expectations experienced by community project members.

The impact of creating expectations

The SRCS's planning and implementation approach in community projects created an expectation from the community project members throughout the year and the SRCS project

leader and committee were only involved for one SRCS term (September 2010 to August 2011) which excluded semester test and examination periods, and holidays. The concern of dependence arose especially relating to the recurrent receipt of food hand-outs and that the SRCS were not active during test or examination periods and university holidays. Here the SRCS might have created within community project members the expectation that their food expenses will be carried by the organisation when their funds become insufficient.

A study done in the Limpopo Province by Drimie and McLachlan (2013:222) found that households tend to experience food insecurity especially during January, February, July and December. These were also the months in which the SRCS is inactive at the projects which may lead community project members to greater food insecurity when experienced during these times. Providing food on a regular basis appears to require newly appointed project leaders to continue with such activities as projects expect and become reliant on such food supplies which make it difficult to withdraw from the project. A further concern arose that participants were not aware of how long the SRCS will be involved in their projects. Thus, the community project members expect the SRCS to be involved, term after term and become dependent on the SRCS.

4.3.3 Opinions of community project members regarding their skills and competences

Community project members were part of the planning of the SRCS programmes and activities where their needs were identified at the beginning of the term. During the interview participants were asked whether they had sufficient skills and competences to participate in the SRCS programmes and activities, and to elaborate on those skills. The following sections describe the concepts that highlighted their feelings towards their participation and ownership in the SRCS programmes and activities.

4.3.3.1 Positive aspects

Expected support

The community project members expected that parents or guardians would become more involved in the projects with the involvement of the SRCS (*"Someone who will be seeing this photos...will be coming and then as I say it is interaction..."*; *"...sometimes the parents they are here outside they are watching..."*; *"...the parents also love those things, if they can play with the children..."*). Furthermore, participants recommended that activities should also be held after the school programme, to provide academic support and offer extracurricular activities to the learners (*"...maybe some people would come and train the learners, maybe for netball and soccer..."*; *"Coming to reading and writing, we still have learners who struggle..."*; *"...but if we know that we are having someone*

there, whom you can even slot in after hours...”; “...can you assist these learners to know how to read... to know the basic skills of maths...”). The support provided to the learners would be in addition to what the school offers, thus the target group’s academic and extracurricular activities’ development would not completely rely on the SRCS, but this will still require community project members to become more involved and take ownership to ensure that skills transfer takes place (*“...to acquire skills you must participate, so if you don’t participate you will not be skilled”*).

Obtained skills and competences

Some participants indicated that they did have the skills to participate in the SRCS activities including teaching and the maintenance of vegetable gardens (*“We can teach them further, many things from the book.”; “...we give some water...”*). It was uncertain whether community project members had the skill to develop vegetable gardens. Further, at an Early Childhood Development Project (EDC), participants mentioned that some of them had the opportunity to receive training from the SRCS based on teaching children. This training included sessions based on personal hygiene, food, and nutrition education (*“...they gave us training of a children’s course...”; “...how to work with the children...”; “...how to cook food, what to cook and what we should give to the children...”*).

4.3.3.2 Negative aspects

Lack of skills and competences

Participants that indicated a lack of skills, mostly indicated that they had basic skills as a teacher or caregiver and that they need more specific skills to be compliant in their positions (*“My skills are about the children. About teaching the children how to play...”; “...we don’t have enough skills, we just work...”; “The teacher who are involved in the ECD must be given more skills”*). Participants indicated that only some of them were able to attend the ECD training which limited the skills transfer thereafter (*“They taught us, but not all of us. We hope that they can teach us all”*).

Other community project members’ skills were mostly learned from life experience, traditional knowledge that has been carried over between generations, skills from their households and experience as from being employed as a domestic worker (*“She was a domestic worker before, where she learned cooking”*). This suggested that the participants did not experience skill transfer between the SRCS and the project. The skills of some of the community project members (teachers and volunteers) were uncertain due to a lack of participation (*“I cannot say much about the school’s personnel, because most of the project we don’t, we are not involved...”*). Another participant who was also unable to identify whether community project members have sufficient skills to participate, indicated that participation is required to obtain skills (*“...for you to acquire skills you must participate, so if you don’t participate you will not be skilled.”*). This might be an

indication that the participant understood the importance of participation, but it is not understood by the remaining community project members which did not participate.

Green and Haines (2012:38) supported the importance of community members' understanding the importance of their participation. Learners (target group) from the visited projects had limited academic support from their households as they came from rural areas where their parent(s) or guardian(s) were illiterate (*"...the support that they get is very limited, many of them come from squatters you know, where parents can't read or write."*). It may also be that their parents(s) or guardian(s) were living elsewhere, due to their work situation, and that a family member or friend is taking responsibility for them. This emphasised that the programmes should also include or continue with academic support.

Participants of one of the projects indicated that they have a lack in skills when working with disabled individuals with special needs. To sustain such project's activities, professional assistance might be needed. Community project members indicated that they require a qualified nurse, social worker and a physiotherapist who should come and visit the project on a regular basis. Such support structures provide projects with social and cultural sustainability (Van Niekerk, 2006:48), which have not yet been achieved by the investigated projects.

Moreover, a lack of menu planning and food preparation skills were also indicated (*"I know how to cook, but some other meals must be special for this kids, because each and every time I will be cooking the same thing, porridge and meat..."*; *"...I do not have enough skills to cook, but I would like more experience in cooking."*). Furthermore, participants made several assumptions that were related to their food and nutritional knowledge and skills, which indicated a lack of knowledge of foods and food preparation skills (*"I am so afraid of the canned food. I do not know how long it has been in the cans"*). Several educational needs arose from these responses and these can be seen as the human as well as the social capital of projects sustainable livelihoods (Van Niekerk, 2006:48).

4.3.4 Sustainability awareness and defined by community project members

Participants were asked whether they had heard of sustainability and what it meant to them. Transcriptions indicated that some participants have an awareness of sustainability and were familiar with the term and the meaning thereof (*"It is to keep a thing in its status. I think so."*; *"...a project should benefit people overtime, so sustaining it is also a lesson to other people that you see, for it to remain like this...we need to do like this."*; *"We do know that word... our centre is being sustained because of the hundred and eighty per child that has been issued each and every month..."*; *"What makes the centre to be standing up until a further longer process"*).

One participant compared sustainability to a rubber band and further explained that sustainability is using the minimum resources and make sure that they become beneficial for the future (*"...you stretch it, you pull it and then you sustain it"; "So it means to me, you work with the minimum resources and then you make sure that they become beneficial for the future. You stretch them for the future, while you have this limited resource"*). This participant had a good understanding of the meaning of sustainability and also indicated that their vegetable garden was sustained. Further, emphasis was placed on the importance of growing project assets as generations can also benefit from them in the future. In the literature study, sustainability is described as the continuation of benefits, implemented programme and the availability of resources within a project so that the present needs are fulfilled and that they are also part of the livelihoods of future generations even after the developing organisation is no longer involved (Mog, 2004:2140; Mzini, 2006:1 & Niesing, 2012:20). The practical definitions provided were different for each participant, but aligned with the literature. According to Muller (2009), sustainability requires change in the approach which requires innovation, creativity and learning to take place.

Some participants had heard of the term, but they were uncertain about the meaning thereof, while other participants had not heard of the term. Thus, it is of great concern that sustainability may not be focused on as community project members were not all aware of the term and the meaning thereof. This is particularly worrying when considering projects that involve external funding into a community and when supporting organisations' project leaders change annually and the organisation is only involved for a certain duration. Projects can only make progress towards sustainability when sustainability is considered through the development process, which includes the planning, implementation and evaluation of programmes and activities. This requires community project members to take ownership of the process towards sustainability. Thus, the important aspects they consider as important for sustainability should form the building blocks in the development process as these may have a positive or negative influence on project sustainability.

4.3.5 Important aspects considered for sustainability by community project members

Since there was a general lack of awareness and uncertainty about the meaning of sustainability by some of the participants, the researcher was required to explain this concept to the community project members in simple, understandable terms. Sustainability was explained as: to continue with the project, without having to stop with it, so that the same activities can also be done by the next generation without depleting the resources, such as money and vegetable gardens or resources that they use to look after the children, but to continue and improve the project into the future. Thereafter, the community project members were asked

which aspects they think are important to make their project successful to ensure project sustainability.

4.3.5.1 Positive aspects

Positive attitude towards the SRCS's involvement and activities

The community project members had a positive attitude towards the students' involvement to achieve project sustainability. Some skills were transferred (*"they come here, teach the children..."*; *"they help us to play with the children and learn them many things"*) and support was provided (*"...we work well together with the school and the university"*) which was also be done through activities such as training (*"...they taught us what we must do..."*. *"I can take a box and make a car, I do not have to use money..."*). Responses indicated that the SRCS project leaders can also learn from community project members (*"...if we do not know such a thing...we can learn from them and they can learn from us"*). They further believed that the involvement of the SRCS creates an awareness among community project members which was seen as the first important aspect considered for sustainability. This was experienced at projects where the infrastructure was developed through vegetable garden development. According to the participants, this may lead to more support provided to a project (*"You see, you sustain that, you develop and sustain it, and you attract something."*).

Identification of specific project needs and training opportunities

Community project members of one project indicated that they have a lack of skills when working with disabled children and adults (*"we definitely need some skills with these children"*). This might provide training opportunities which would contribute to their project's sustainability. The current skills of the community project members can be assessed to determine which skills transfer should occur. Community project members identified that some project's activities may require professional assistance, such as a qualified nurse, social worker and a physiotherapist. Furthermore, community project members identified that they need to improve their business and operational skills to ensure project sustainability (*"I have been working there for so long, there are things I do not know...clearly we do not have much information to run the centre smoothly"*; *"The teachers who are involved in the ECD must obtain more skills"*). These training needs also include some opportunities for the SRCS project leaders to improve skills such as communication and teaching (*"...they just sit down with the children. So that is things you do not know."*).

Personal commitment of community project members

Although the projects indicated that they have limited funds, the participants were still committed to the community project. Thus, the participants considered personal interest of loving and caring for the well-being of the children as an important aspect of sustainability. It

was also important that community project members should have a personal interest to become involved and empowered through the SRCS programmes (*"...the love for the children is the thing that makes us stand up in the mornings and come to work"*).

4.3.5.2 Negative aspects

Dependence

Many participants did not see their programmes as being sustained without the assistance of the SRCS (*"...I have not seen any ECD project without those students mam."*; *"They do not grow without them."*). The concern arose within this study whether community project members would take responsibility and ownership of programmes to ensure the sustainability thereof (*"...Very much, mostly I fear to ask the teachers to do extra things..."*). Community projects also received support from other organisations which may lead to projects becoming dependent on food supplies (*"...the people from the army they always come, maybe after three months, and then they give a plenty of food..."*). Furthermore, one of the projects recommended that they should have a partnership with an organisation or individual which will provide the necessary funds to implement programmes (*"I think the most important thing is to get someone who can adopt us"*; *"...we will get something, we can do something."*). Since the SRCS were currently involved in the projects, a further concern arose of what the consequences will be when the organisation withdraws from the projects. This indicated that some projects were unable to be independent from an organisation, thus, these projects were unsustainable.

Although vegetable gardens may contribute to the food supply for feeding schemes and are seen as an important aspect of project sustainability, community project members still identified the need for the provision of food (*"...we are still going to need food...to put this school where you can say: the school has one, two and three..."*; *"...we still need to say now the garden is fine, then its sustained."*; *"Because when you say the garden is fine...the learners may have food on a daily basis"*).

Further, one of the projects indicated transport as an important need and aspect to sustain their project (*"Transport, we need the transport, yes"*) (Table 4.4). The project target group, which was the children, became dependant on public transport as they lived a long distance from the project. Thus, the participants indicated that with transport they will be able to take the children to and from the school and that such transport will also assist community project members to maintain their vegetable gardens that are based at a different location.

Limited funds and community project members' capacity

Community project members identified funds as an important aspect of sustainability and that most of their income is spent on food (*"It is not enough because of most the money we are buying*

food”; “...the money the government or department is giving the school, does not always cover all the learners”; “...we also have lesser funds...”). Purchasing food is an important food security strategy among the rural poor which is prevented through a lack of income (Pereira *et al.*, 2014:339). They indicated that with an increased community project members’ capacity within the project, fundraising would be possible and that they should take ownership (“We must just have more staff so that we can do fundraising...must not only sit and say student must help us”). Limited funds prevent opportunities to increase community project members’ capacity. This can also be seen as community project members becoming dependant on the supporting organisation. Furthermore, responses also indicated that limited funds may result in community project members that become self centred by looking after their own needs before the needs of the project (“When I get money, I look after my needs, not helping the children or the ECD to grow first...”). A participant indicated that the younger generation was not willing to work without remuneration and, thus, their own financial well-being became a priority.

SRCS term duration

The term duration of an SRCS project leader being involved in a project was further indicated as an important aspect identified by community project members. When initial plans, such as those identified with the needs assessment, were not carried out in a project the community project members became frustrated with the SRCS visiting their project. The participant felt that the SRCS term duration resulted in improper planning which was a frustration that repeatedly occurred and needed attention if the SRCS planned to continue with their involvement at their project. The participant believed that an extended term involvement would give the SRCS project leader the opportunity to complete and sustain what had been started at the project. The participant further showed his frustration towards the appointing of new project leaders each term, especially when new programmes were being implemented (“...next year it is another project leader.”; “Now in most cases what is happening, you have a good project, you start it, you implement it, and you do not sustain it”; “...they put everything on paper, but at the end of the day those does not materialise...”). It was suggested that the SRCS term should be extended to at least two years, and, thus, two SRCS terms should be carried out by one project leader or the new project leader should continue with the same programme until it has become sustainable.

Lack of communication and teamwork

Responses indicated that there is a lack of communication when support is provided to projects (“...all they said were: Why didn't you tell us that your school was clean and then we didn't have to bring these pieces?”). Furthermore, a lack of communication occurred at community projects between members (“She is the chairperson, but mostly she don't know other duties as a chairperson...How must we do? Even caregivers...”). The lack of participation developed a need to involve community

project members and to work as a team (*“So that when a student leaves, these educators proceeds or with this project to sustain it.”; “...lets involve the teachers and let the people work as a team”*).

4.3.6 Measuring sustainability of projects against sustainability indicators

Sustainability indicators (SI) are used to measure the progress projects are making towards sustainability. Furthermore, SI may indicate changes and developments as well as relationships (Farrell & Hart, 2010). Projects' sustainability indicators should be separate from each other (Van Niekerk, 2006:92), thus the sustainability indicator will depend on the needs at each community project. In a study by Niesing (2012), based on income generating community projects, of which some were also located in the Potchefstroom area, 26 SI were identified and could be grouped into categories related to human resources and management; skills associated with activities and management thereof; infrastructure and resources, and financial aspects to sustain social well-being. Relevant SI as revealed by community project members in this study are indicated in Table 4.4.

Table 4.4 Summary of sustainability indicators relevant to the SRCS projects

Categories	Sustainability indicators (Niesing, 2012:47-49)	SI relevant in this study
Human resources and management	1. Number of people generating an income in the project	-
	2. Productive capacity of the project members	-
	3. Conflict management within the project	-
	4. Clear leadership roles within the project	Clear leadership roles of project members
	5. Support for the project provided by facilitator/support organisation	Support for the project provided by the SRCS:
	6. Using social networks to the advantage of the project	-
	7. Childcare during working hours	Support for the project provided by the SRCS Support for the project provided by other organisations (child care, church outreaches, social services, etc.)
	8. Other institutions provide cultural support to the project	Provision of cultural support
	9. Other institutions provide religious support to the project	Provision of religious support

Table 4.4 Summary of sustainability indicators relevant to the SRCS projects (continues)

Categories	Sustainability indicators (Niesing, 2012:47-49)	SI relevant in this study
Skills associated with activities and management thereof	10. Available skills for income-generating activities in project 11. Training opportunities for the project members 12. Improvement of business skills of the project members 13. Innovative and creative abilities of project members 14. Continuous support in project management from the support organisation 15. Skills assessment of project members 16. Skills evaluation of new members when joining the project 17. LIFEPLAN® training for new members when joining the project 18. Integrating traditional skills when developing products sold by the project	- Training opportunities for the community project members Education opportunities for community project members Improvement of business skills of the project members Creative abilities of community project members - Skills assessment of community project members - - Integrating traditional knowledge when developing activities (e.g. food preparation)
Infrastructure and resources	19. Transport opportunities to markets when buying stock and selling products 20. Availability of communication facilities (like internet and telephone facilities) to the project 21. New product development for products sold by the project 22. Access to markets for selling products made by the project	Transport for community project members - - Proper infrastructure (kitchen, classroom, toilets, etc.)

Table 4.4 Summary of sustainability indicators relevant to the SRCS projects (continues)

Categories	Sustainability indicators (Niesing, 2012:47-49)	SI relevant in this study
Financial aspect	23. Saving opportunities for the project	Saving opportunities for the project
	24. Sources of credit for the project	-
	25. Another source of income except income generated by the project	-
	26. Financial record keeping in the project	-

4.3.6.1 Human resources and management

Clear leadership roles of community project members

Participants indicated that with the group approach proper cooperation is vital. Community project members should know where their responsibilities lie to ensure ownership to sustain projects.

- Group approaches when implementing activities and programmes (*"...lets involve the teachers and let people work as a team..."*)
- Group approaches when evaluating activities and programmes (*"...But at the end of the day those doesn't materialise and no one comes to me and say 'Mister we thought..."*)

Participants further indicated that community project members should be identified who should work with the SRCS project leader and committee to sustain the project. Thus there should be clear leadership roles within the project. A participant indicated that working in "silos", alone will lead to unsustainable projects. Thus, the community project members and the SRCS should rather work with a team approach which may lead to skills transfer (*"So that when a student leaves, these educators proceeds or with this project or to sustain it."*). Clarification on leadership roles and management of responsibilities within the project were required as participants were not sure which roles and responsibilities they were fulfilling (*"She is the chairperson, but mostly she don't know other duties as a chairperson... How must we do? Even caregivers..."*).

Support for the project provided by the SRCS

Support for the project by the support organisation is the first identified sustainability indicator (Niesing, 2012:48) (Table 4.4). In this study the support organisation was the SRCS that was actively involved in community projects. Students interacted with the project target group, mostly children, on a weekly basis. The participants indicated that support for the project was provided by the SRCS in many ways (*"You know, a lot of things they do for us"*), but were not limited to the following:

- The receipt of food handouts (*"Yes, they feed and bring food. They bring something, we all eat..."*)
- Basic operational resources (*"They always bring us eh... food, the toys for the children."*)
- Provision of academic support (*"Let's do the maths homework, let's do the reading eh eh sessions, you know"*)
- Provision of extracurricular activities (*"maybe some people would come and train the learners, maybe of netball and soccer during this time"*)
- Group approaches when planning activities and programmes (*"...they ask first: What do you need as a centre?"*)

Support for the project provided by other organisations

In addition to the support provided to the project by the SRCS, the participants also indicated that they received support from other organisations. The Department of Defence, commonly known as the military, provided project support through food handouts and maintenance. Further, a Department of Basic Education initiative created the School Support Scheme for the needy children at one of the projects, which may also be at other projects. The National School Nutrition Programme (NSNP) which was also mentioned and initiated by the department provided support to the school feeding schemes (Table B2). The NSNP programme aims to enhance learning capacity through: school feeding schemes; the promotion and support in food production; the improvement of food security; and strengthen nutrition education (Department of Basic Education, 2014a). The Child Line organisation also offers support to needy children, thus the projects can make use of their services. In another South African study, Leahy (2011:38) explained that private organisations assisted communities to plant trees and develop gardens and that the government supported household gardens with low cost inputs such as chicken wire and irrigation systems, but their funds to sustain such inputs were limited.

Schools within the community have also reached out to community projects and the projects themselves also have done some collaborative activities (“...we work well together with the school and the university”). In the past, social services have also offered workshops to the community project members. It appears that supporting organisations were not always aware of activities that were implemented at the projects, such as the support received from the Department of Defence (“...all they said were: *Why didn't you tell us that your school was clean and then we didn't have to bring these pieces?*”). When communities are aware of the support provided to the same projects, they can work together to achieve and obtain common goals.

4.3.6.2 Skills associated with activities and management thereof

Training and education opportunities for community project members

Community project members indicated they make use of the prescribed curriculum of the Department of Basic Education named the Curriculum and Assessment Policy Statements (CAPS). The need may occur to provide a community member with the opportunity to attend further training to improve certain skills through workshops which may also include the opportunity to obtain a qualification (“*The teachers who are involved in the ECD must obtain more skills*”). Although many short courses are offered to educators by the Department of Basic Education (2014b) awareness of courses are uncertain as no reference has been made to these. Such opportunities are seen as one of the most vital sustainability indicators (Niesing 2012:51). This is also supported by Messerli and Abdykaparov (2008:341, 344) who stated that training and education are required to develop community projects and should be adapted

according to the changing socio-economic environment. Participants may have some skills that should be improved through training so that such skills can be further transferred to the target group. Participants indicated that they would like to transfer skills such as teaching and working with children, vegetable garden development, and food and nutrition education. Programmes that include the nutritional aspect can be used to teach learners about food systems as part of their school curriculum (Lautenschlager & Smith, 2007:245).

Furthermore, gardening would motivate healthy living when used as a teaching tool (Moller, 2005:69). When project target groups, such as secondary school learners are involved in gardening activities, it can also improve their physical health because of the exercise they get (Lautenschlager & Smith, 2007:249). Garden-based service learning also assists learners to improve their learning abilities (Aftandilian & Dart, 2013:60). McLennan (2010:332) has observed that gardens can be used for nutrition education which may develop “sense of community” between households and schools. Information and skills can be transferred to households, and environmental awareness will be created. Some participants indicated that they also need to obtain skills to manage children with special needs (“...we definitely need some skills with these children.”). Thus, the type of training opportunities for community project members depends on the target group and what is offered at the project. Skills training were identified as an economic factor of sustainability indicators (Van Niekerk, 2006:48).

Improvement of business skills of the community project members

Participants experienced a lack of business skills such as planning and budgeting. According to Niesing (2012:50), the realisation of the importance of such skills will assist with project sustainability. Skills may be greatly influenced by members’ educational background which was also supported by Niesing (2012:50). Effective management of project’s funds requires business skills which some of the participants indicated that they never have obtained these skills (“We buy food yes, but sometimes by the fifteenth we do not have anything”; “Maybe that is why our centre is still on the same level and have not improve that much information.”). The improvement of business skills might enable community project members to identify saving opportunities within their project budgets and implementation of programmes and activities. The community project members’ education and skills will indicate the level at which further training and skills development should take place to manage projects as well as personal finances effectively.

Creative abilities of community project members

The SRCS taught the community project members of a project how to use recycled material in their programmes which reduced their educational material expenses (“...they taught us what we must do...”; “I can take a box and make a car, I do not have to use money...”). This enabled members

to use their creative abilities, thus teach participants to be creative in their way of thinking and to create something without unnecessary expenses.

Skills assessment of project members

The current needs of the community project members can be assessed to determine which skills transfer should occur. Skills assessment of project members are also seen as a SI which emphasises the development of the human capital (Niesing, 2012:50) and can also form part of the annual SRCS needs assessment. Within this study the SI related to skills were the creative abilities of the project members, the improvement of their business skills, the training opportunities for the community project members, and the integrating traditional knowledge when developing activities.

Integrating traditional knowledge when developing activities

As previously mentioned, skills that have been learned also comes from traditional knowledge transferred between generations. Moller (2005:68) also found that community members continued with activities learnt from parents and grandparents who were domestic workers. The use of this knowledge is also seen as a somewhat important sustainability indicator (Niesing, 2012:51). When planning programmes to address the transfer of food and nutrition related skills it is important that the organisation is culturally sensitive towards the community project members.

4.3.6.3 Infrastructure and resources

Transport for community project members

As previously discussed, the sustainability indicator “transport for community project members” was also indicated as an important aspect of sustainability by community project members.

Proper infrastructure

The study by Niesing (2012:51) identified access to markets for selling products made by the income-generating projects as a sustainability indicator. Within this study, feeding scheme projects may require a proper infrastructure such as a kitchen and a vegetable garden to be functional and become sustainable. Such projects would also need access to markets to purchase foods as all foods cannot be produced and are influenced by seasonal changes.

- Development of vegetable gardens (“So if you see that garden there, it was...they come two times per week...”)

Participants in a study done by Moller (2005:69) explained the significance of vegetable gardening as a significant contributor towards their quality of life as it provides healthy food and saving opportunities. It is believed that growing their own vegetables can lower food expenditure

and the produced vegetables can be used in their feeding schemes. This is supported by Moller (2005:69) where gardening was motivated by gardeners as a way of alleviating poverty as the saving can be used for other expenses. This is also supported by Thornton (2009:19) who stated that vegetable gardens serve as an additional food supply that may improve food security.

Since the identified projects all have a feeding scheme and the projects spend most of their income on food, the need for food remains a priority to the community projects. Besides the limited income the projects received, projects might not spend enough money to obtain adequate and nutritious food, especially when they do not own a vegetable garden. Altman *et al.* (2009a:352) also indicated that only a fifth of households spend enough of their income on food. Participants from two projects (2/5) specified that a developed vegetable garden is an important aspect of sustainability even though they did not have sustained gardens. Thus there is a relationship between sustainable vegetable gardens and saving opportunities as food production may decrease the funds spent on foods and provide such opportunities.

Since this phase of the study focused on food security-related projects with feeding schemes, the researcher also assessed the sustainability of the vegetable gardens, when owned, at these projects as a food source. When projects have the resources to develop vegetable gardens it can be used without going to waste (Moller, 2005:68) and thus, the resources are protected. Land as a resource is an environmental indicator of sustainability regarding community projects (Van Niekerk, 2006:48).

The researcher observed that three (3/5) food related projects with feeding schemes (project A, C and E) were involved in the production of their own food sources through vegetable gardening (Table B2). The vegetable garden at project A was seen as a community attraction by the participant. This was also found by Moller (2005:74) where vegetable gardens became the main attraction for gardeners as food was prepared on a daily basis. As previously mentioned, this may contribute to making progress to being socially sustainable. The participant indicated that there was a time when vegetables were provided to the feeding scheme to lower their expenditure. Thus their vegetable garden, when sustainable, may contribute to a sustainable food supply.

With the data collection visit, the researcher observed that the garden was well maintained, but there might be insufficient maintenance especially during weekends and school holidays. The SRCS also took up some of the responsibility to maintain the project's garden, thus the lack of ownership may lead to an unsustainable programme.

CHAPTER 4: RESULTS AND DISCUSSION

Project C had a vegetable garden which appeared not to serve as a sustainable food supply (Table B2). There may be a number of reasons for this:

- Lack of participation occurred as participants do not regularly maintain their vegetable garden.
- This project had limited funds as a result of high food expenditure. Limited funds resulted in a reduced supply and variety of food which leads to household food insecurity (Du Toit, 2011; Oldewagen-Theron & Kruger, 2011:425).
- Food was mostly bought from nearby supermarkets or street vendors or was received from donors that included the SRCS.
- Lack of nutritional knowledge to follow a healthy balanced diet.
- Lack of gardening equipment to maintain vegetable garden.
- Lack of transport was also seen as a major limitation which prevents the community project members from maintaining and harvesting vegetables from the garden based at a different location (Table B2).

Project D's vegetable garden was observed as making progress towards sustainability. The garden has been previously developed by the SRCS and has been maintained by the community project members since. Sustainability could be assured by the inclusion of the community project members with the development of the garden and not only after the implementation thereof. The increase in participation may lead to skills transfer which can further be implemented elsewhere. After the SRCS has established the vegetable garden, the community project members have taken the responsibility to maintain their vegetable garden and have benefited from it.

4.3.6.4 Financial aspect

Much funding has been spent on the implementation of the SRCS project programmes and activities, but the community projects themselves mostly received their income from the Department of Education. The income received from the community for these projects was limited as all indicated that their monthly income cannot be assured due to low income or unemployment. It is clear from the interview discussions that the income that they had received was not sufficient to cover all the projects' expenses (*"...the money the government or department is giving the school, does not always cover all the learners"*). Financial constraints limited the saving opportunities, if any, thus provision cannot be made for difficult economic times, or when supporting organisations withdraw from the project during recess.

Furthermore, the participants indicated that they do have volunteers, but with their limited funds they find it difficult to retain them with remuneration, thus this lead to volunteers who withdraw

from the project. The participants indicated that their lack of funding would make it difficult to continue with the SRCS activities when the organisation withdraws from the project. They further indicated that activities might be possible when their income become sustainable. This supports the identification of fundraising as an important aspect of sustainability. With the required funds, community project members would be able to purchase the basic operational resources needed for the implementation of academic lessons, maintenance and project assets. This may also include the resources needed for the implementation of SRCS activities especially when the community project members take ownership of the programmes. Community-driven fundraising motivates the taking ownership of their situation, thus actualising the 'self-help' aspect. The concern arose that the parents and family members were not always able to contribute to fundraising as they are not always income secure. According to Kallmann (2011:210), the household income determines their well-being.

Saving opportunities for the project

The community project members indicated that the SRCS organisation assists them to create saving opportunities. Saving opportunities were also recognised as a sustainability indicator by Van Niekerk (2006:48) and Niesing (2012:48). As previously discussed, participants indicated that food was their greatest expenditure (*"It is not enough because of most of the money we are buying food"*) and that this expense can be reduced by developing a sustainable vegetable garden as a food source (*"...but with our garden alive that helps us to sustain the expenditure..."*; *"Because when you say the garden is fine...the learners may have food on a daily basis"*).

- Fundraising by the community project members (*"We must just have more staff so that we can do fundraising, donations must not only sit come and say student must help us."*).

Community project members further indicated that they can create their own saving opportunities by doing fundraising. Some realised that they cannot only depend on the SRCS organisation, but they should also use their own initiatives. The only obstacle identified, was the capacity to do fundraising. Thus, the current and additional funds should be well managed to ensure that their resources are protected.

4.3.7 Phase two: conclusion

The researcher obtained information on the projects based on 'real life' experiences and concerns. During the focus groups and semi-structured interviews community project members' experiences with the involvement of the SRCS at their projects were investigated. Participants indicated gratefulness and pride towards the SRCS's involvement in their projects. However, projects became dependent on food handouts which were seen at all (5/5) projects, which also created further expectations for support, and indicated a lack of ownership with the implementation of SRCS programmes and activities. Furthermore, a negative aspect revealed,

was frustration experienced which mainly arose from improper planning. Participants indicated a need to be provided with certain skills such as food preparation, menu planning, teaching and improvement in business skills. The researcher further assessed the members' opinions towards sustainability. Although some of the respondents understood the meaning of project sustainability, this was not reflected at their involved projects as it was observed that only one project's vegetable garden was maintained and used as food supply. Aspects considered as important for project sustainability by community project members were discussed and sustainability was measured against sustainability indicators used in the literature. Aspects such as members' attitude, needs and training opportunities, and commitment contribute to project sustainability whereas dependence, limited funds and community project members' capacity, SRCS term duration, and lack of communication and teamwork, negatively influenced project sustainability.

4.4 PHASE THREE: GROUP ADMINISTERED QUESTIONNAIRE

The last phase of the study focused on the objective to assess the SRCS project leaders' (students) knowledge and understanding of sustainability of the projects in which they were involved at the end of their term served (September 2012 until August 2013). An electronic meeting invitation was sent to 46 SRCS project leaders and was followed up by means of verbal and electronic telephone messages. A group-administered questionnaire was completed by the SRCS project leaders and the data were analysed with the SPSS statistical programme. The data obtained from phase two, the focus groups and semi-structured interviews, were used to compile the questionnaire and thus, it was based on similar themes derived from the transcriptions.

Sections (themes) included in the questionnaire:

- Section A: Participation, skills and competences
- Section B: Sustainability and sustainability indicators
- Section C: Food security-related programmes and activities

Twenty SRCS project leaders (43%; 20/46) responded to the invitations and participated in the study. The questionnaire was completed at the NWU, Potchefstroom Campus during October 2013 directly after the new project leaders were appointed for the upcoming SRCS term (September 2013 until August 2014). Throughout the questionnaire (addendum), SRCS project leader(s) referred to the student leader(s) responsible for the community projects, whereas community project members' referred to the project personnel, including the contact person, involved in the project, including volunteers, care takers, educators, head masters or chair persons.

4.4.1 Participation, skills and competences

The respondents (n=20) were questioned to indicate how often the community project members participated in the SRCS activities. The results revealed that 50% of the respondents (10/20) indicated that the members always participate, 45% (9/20) that they often participate, and 5% (1/20) that they sometimes participate. Although community project members participate, it is only one of the aspects of community development (Green & Haines, 2012:38). Furthermore, the mean: 1.55 indicated that community project members often participate in the SRCS activities (SD<1). Community project members' skills and competences to participate in the SRCS activities were mostly rated as good (75%; 15/20). Hence, the SRCS project leaders believed that their community project members were capable to participate in such projects.

The results reflected that 90% (18/20) of the respondents indicated time to be the major barrier often experienced by community project members towards participation within the school programme. Other barriers always or often experienced, were time for participation outside the school programme (60%; 12/20); and personal interest and responsibilities (55%; 11/20). There was no significant difference between the barriers rated by project leaders as experienced by the community projects members. When the responsibilities of the community project members were uncertain and they were not included in the planning and implementation of the activity, this barrier might occur.

The students found it difficult to sustain frequent activities at the projects together with their personal academic programme and other extracurricular activities. Time available to plan (70%; 14/20), implement (80%; 16/20) and evaluate or reflect (70%; 14/20) on activities was always or often experienced as a barrier to respondents. Optimal implementation required that the project leader and committee, plan an activity, visit their community project and complete an activity with a defined purpose in mind. After implementation of activities, a detailed report regarding the process followed. The assessment, feedback and achievements must be submitted to the SRCS. Process reports became lengthy and time consuming activities.

Correlations coefficients between barriers with correlations ≥ 0.5 , large effect, were reported in Table 4.5.

Table 4.5 Correlations between barriers with a large effect experienced by SRCS project leaders (n=20)

Barriers		Frequency rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Time available to plan for the programmes and activities		2.10±0.85		
	Time available to implement programmes and activities	1.95±0.69	0.000	0.821**
	Time available to evaluate or reflect (process reports) on activities	2.00±0.79	0.004	0.621**
	Lack of skills and competences	2.60±0.60	0.003	0.624**
	Personal interest and responsibilities	2.35±0.93	0.017	0.528*
Time available to implement programmes and activities		1.95±0.69		
	Time available to plan for the programmes and activities	2.10±0.85	0.000	0.821**
	Time available to evaluate or reflect (process reports) on activities	2.00±0.79	0.008	0.578**
	Personal interest and responsibilities	2.35±0.93	0.017	0.527*
Time available to evaluate or reflect (process report) on activities		2.00±0.79		
	Time available to plan for the programmes and activities	2.10±0.85	0.004	0.621**
	Time available to implement programmes and activities	1.95±0.69	0.008	0.578**
	Personal interest and responsibilities	2.35±0.93	0.003	0.629**
Lack of skills and competences		2.60±0.60		
	Time available to plan for the programmes and activities	2.10±0.85	0.003	0.624**

1 = Always; 2 = Often; 3 = Seldom; 4 = Never

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.5 Correlations between barriers with a large effect experienced by SRCS project leaders (n=20) (continues)

Barriers		Frequency rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Personal interest and responsibilities		2.35±0.93		
	Time available to plan for the programmes and activities	2.10±0.85	0.017	0.528*
	Time available to implement programmes and activities	1.95±0.69	0.017	0.527*
	Time available to evaluate or reflect (process report) on activities	2.00±0.79	0.003	0.629**

1 = Always; 2 = Often; 3 = Seldom; 4 = Never

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)

* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

There was a statistically significant correlation with a large effect between the barrier time available to plan, implement and evaluate programmes and activities ($r \geq 5$; $p \leq 0.01$) (Table 4.5). Thus, the time available to plan for the programmes and activities depends greatly on the time allocated or available for an activity and what needs to be done within an activity and *vice versa*. This would also further indicate the time needed to evaluate projects. Furthermore, the remaining tabulated barriers also had statistically significant correlations with large effects ($r \geq 5$; $p \leq 0.01$; $p \leq 0.01$) (Table 4.5).

The barrier “lack of skills and competences” of the project leaders were seldomly (65%, 13/20) experienced by project leaders as a barrier towards projects where as personal interest and responsibilities were often (35%; 7/20) or seldomly (35%; 7/20) experienced. There were also a statistical correlation with a large effect between time available to plan for activities; lack of skills and competences; and personal interest and responsibilities ($r \geq 5$; $p \leq 0.01$; $p \leq 0.01$). This indicated that the time available to plan is in relation with the project leaders' skills and competences and that their personal interest and responsibilities would determine how much time they had available to plan programmes and activities. Furthermore, the time available to implement and evaluate programmes and activities also had a significant correlation with a large effect on personal interest and responsibilities ($r \geq 5$; $p \leq 0.01$; $p \leq 0.05$) (Table 4.5).

Within the SRCS's organisational structure, the project leaders and their committee members come from different disciplines and, thus, they can only transfer the skills that they have

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mastered. The project leaders themselves receive training and guidelines in social economic development which clarifies their responsibilities towards the projects. It remained the responsibility of the project leader to transfer these skills to the rest of the committee.

In this regard, 95% (19/20) of the respondents indicated that the community project members' responsibilities towards the programmes and activities were discussed and clarified to them. Respondents' individual responses, when asked to provide a reason, indicated that individual responsibilities were pointed out based on the community project members' skills and experience. Several respondents provided the project members with a schedule to assist them in their planning while others only conveyed responsibilities prior to the implementation of an activity. It is also believed that community project members' responsibility should be explained to them when they choose to participate. These results were supported by the participation percentages (recorded as always, often or sometimes). The respondents indicated that the responsibilities that were discussed and clarified to the community project members included the responsibility towards the improvement and sustainability of the programmes. Respondents indicated a conflict occurring between the personal interest and the responsibilities that were experienced as a barrier over half of the community project members (55%; 11/20). When responsibilities are understood, community project members would be more interested in being involved in the SRCS activities. Thus, careful consideration should be taken when responsibilities are given to community project members.

The majority of the respondents (65%, 13/20) indicated that their projects' community project members have the required skills and competences to manage their responsibilities sufficiently. SRCS project leaders indicated that skills were obtained from their activities, workshops and training opportunities. Personal drive and commitment had a positive effect on how responsibilities were managed (*"with experience and personal skills they can do it. It is the 'type' of people they are"*), whereas community project members' educational background had a negative effect (*"Background is a big problem, no platform"; "not all completed school"*). The respondents that indicated that their community project members' did not manage their responsibilities sufficiently assisted them to do so as the need occurred.

Results revealed that, in addition to the support provided by the SRCS, 90% (18/20) of the projects also receive other support from other resources within the community (Table 4.6). It is important that the project members are aware of their project's support structures as they all need to work towards a common, communal goal.

Table 4.6 Support provided to the projects other than the SRCS

Supporting resources	Support provided, supplies and involvement
Government Department of Education	School and food supplies Improvement of building structures
Businesses (sponsors) and farmers in the Potchefstroom area	Donations: money, food, building materials, equipment and other essentials Work opportunities
Private community members (includes parents) Government Department of Defence Churches and schools	Outreach activities Donations: clothes collected; imperishable food; and prepared food parcels
Other community or welfare organisations	Financial assistance

Furthermore, almost all the respondents (95%, 19/20) indicated that skills transfer took place between the SRCS and the community projects members. Skills were mostly transferred through programme activities, training and support based on the identified needs for the specific project. The skills that were identified for transfer were creativeness, technological, practical construction, and personal skills. Some respondents also indicated skills transfer as an objective within their programmes and this should form part of all activities so that 'self-help' is encouraged. The respondent who indicated that no skills transfer took place at the project indicated that the project only worked with school children and did not empower the responsible teachers. This can be seen as unsustainable as the target group can only transfer skills to their parental home and not to all the other groups in the future. Thus, it would be more sustainable when skills are transferred to community project members (such as educators) who can then take ownership to transfer the skills to the target group (mostly children).

4.4.2 Student leaders' experience and opinion of project sustainability

SRCS project leaders' opinion of aspects important to sustainability was determined. Seventy five percent (15/20) of the respondents completely agreed that empowerment was the most important aspect regarding project sustainability (Table 4.7). Other aspects were mainly rated as somewhat important by the majority of respondents. Correlation coefficients between aspects rated as the meaning of project sustainability for SRCS project leaders with correlations ≥ 0.5 , large effect, were reported on (Table 4.7).

Table 4.7 Correlations between aspects rated as the meaning of project sustainability for SRCS project leaders (n=20)

Aspects		Importance rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Exposure/awareness (public/community/media)		3.35±0.59		
	Capacity building (individual and collective strengths and assets within a community)	3.30±0.80	0.008	0.575**
Ownership and participation (taking responsibility and being involved)		3.35±0.59		
	Sufficient income (to make payments and operate project)	3.05±0.76	0.013	0.545*
Capacity building (individual and collective strengths and assets within a community)		3.30±0.80		
	Exposure/awareness (public/community/media)	3.35±0.59	0.008	0.575**
	Empowerment (improving skills to independent initiating actions)	3.65±0.67	0.003	0.633**
	Production of own food sources (vegetable gardens, livestock, etc.)	3.20±0.77	0.002	0.659**
Sufficient income (to make payments and operate project)		3.05±0.76		
	Ownership and participation (taking responsibility and being involved)	3.35±0.59	0.013	0.545*
Empowerment (improving skills to independent initiating actions)		3.65±0.67		
	Capacity building (individual and collective strengths and assets within a community)	3.30±0.80	0.003	0.633**
	Production of own food sources (vegetable gardens, livestock, etc.)	3.20±0.77	0.042	0.458*
Production of own food sources (vegetable gardens, livestock, etc.)		3.20±0.77		
	Capacity building (individual and collective strengths and assets within a community)	3.30±0.80	0.002	0.659**
	Empowerment (improving skills to independent initiating actions)	3.65±0.67	0.042	0.458*

1 = Completely disagree; 2 = Disagree; 3 = Somewhat agree; 4 = Completely agree

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$); * Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$); Effect size (r): 0.5 = large

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There was a significant correlation with a large effect between the aspects exposure or awareness and capacity building ($p \leq 0.01$; $r = 0.575$) (Table 4.7). Thus awareness or exposure of programmes to the public, community and media has a relative relationship with building capacity within a community. Increased or decreased of exposure or awareness may lead to increased or decreased project capacity. The same correlation appeared between the aspects ownership and participation, and sufficient income ($p \leq 0.05$; $r = 0.545$). Furthermore, there was no significant correlation between ownership and participation, and capacity building ($p = 0.136$; $r = 0.345$). This study indicated that ownership over programmes would depend whether projects have sufficient funds which will also determine their participation.

Furthermore, there was also a significant correlation with a large effect between capacity building, empowerment, and production of own food sources ($p \leq 0.01$; $r \geq 0.5$) (Table 4.7). The literature also supported that empowerment builds human capacity in disadvantaged community members (Niesing, 2012:16). Thus skills transferred and development of vegetable gardens will have a relative influence on the project capacity contributing to project sustainability.

The researcher defined sustainability within the questionnaire and thereafter respondents had to rate their projects' sustainability referring to their involved SRCS term. The majority of the respondents rated the programmes (50%; mean=3.35), activities (45%; mean=3.2) and overall project (55%; mean=3.3) as somewhat sustainable.

Respondents had to rate the importance of given SI. All aspects were rated important to very important by most respondents, which seemed consistent across all the indicators (SD=0.51 to 0.76), except for the importance of food hand-outs that slightly deviated (SD=1.01) (Table 4.8). Some indicators were further supported by Moller (2005:1132) who states that community programmes (education and training opportunities) should have good educational standards; definite organisational structure (clear leadership roles); and financial stability (fundraising and saving opportunities). None of the indicators were rated as unimportant, except for the receipt of food handouts which was rated as unimportant by 10% (2/20) of the respondents (Table 4.8). Food hand-outs may create expectancy from community project members towards the SRCS, which may develop a dependency in the long term.

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders

Sustainability indicators (statements)		Importance rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Saving opportunities		3.40±0.60		
	Fundraising by the community project members	3.05±0.76	0.002	0.646**
	Clear leadership roles within the project (between the community project members)	3.50±0.69	0.000	0.763**
	Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	3.30±0.73	0.020	0.514*
	Basic operational resources (needed for lessons, maintenance, assets, etc.)	3.45±0.60	0.19	0.520*
	Group approaches when implementing activities and programmes	3.35±0.59	0.003	0.629**
Fundraising by the community project members		3.05±0.76		
	Saving opportunities	3.40±0.60	0.002	0.646**
	Clear leadership roles within the project (between the community project members)	3.50±0.69	0.000	0.710**
	Provision of extracurricular activities (netball, soccer, rugby, etc.)	3.45±0.69	0.035	0.473*
Clear leadership roles within the project (between the community project members)		3.50±0.69		
	Saving opportunities	3.40±0.60	0.000	0.763**
	Fundraising by the community project members	3.05±0.76	0.000	0.710**
	Creative abilities of project members	3.35±0.75	0.29	0.487*
	Provision of extracurricular activities (netball, soccer, rugby, etc.)	3.45±0.69	0.008	0.577**

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders (continues)

Sustainability indicators (statements)		Importance rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Support for the project provided by the SRCS		3.35±0.59		
	Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	3.30±0.73	0.000	0.874**
	Group approaches when evaluating activities and programmes	3.40±0.68	0.025	0.500*
Support for the project provided by other organisations (child care, church outreaches, social services, etc.)		3.30±0.73		
	Saving opportunities for the project	3.40±0.60	0.020	0.514*
	Support for the project provided by the SRCS	3.35±0.59	0.000	0.874**
	The receipt of food hand-outs	2.80±1.01	0.043	0.456*
	Provision of cultural support	3.30±0.73	0.034	0.476*
	Group approaches when evaluating activities and programmes	3.40±0.68	0.026	0.497*
The receipt of food hand-outs		2.80±1.01		
	Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	3.30±0.73	0.043	0.456*
	Integrating traditional knowledge when developing activities (e.g. food preparation)	3.40±0.68	0.024	0.501*
	Group approaches when implementing activities and programmes	3.55±0.51	0.044	0.454*
	Group approaches when evaluating activities and programmes	3.40±0.68	0.040	0.463*

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)

* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders (continues)

Sustainability indicators (statements)		Importance rated (Mean±SD)	p-value (2-tailed)	Correlation coefficient (r)
Basic operational resources (needed for lessons, maintenance, assets, etc.)		3.45±0.60		
	Saving opportunities for the project	3.40±0.60	0.019	0.520*
	Provision of cultural support	3.30±0.73	0.006	0.596**
	Group approaches when implementing activities and programmes	3.55±0.51	0.000	0.708**
Proper infrastructure (kitchen, classrooms, toilets, etc.)		3.40±0.75		
	Integrating traditional knowledge when developing activities (e.g. food preparation)	3.40±0.68	0.003	0.627*
Skills assessment of project members		3.40±0.60		
	Training opportunities for community project members	3.55±0.69	0.016	0.530*
Education opportunities for community project members		3.50±0.61		
	Training opportunities for community project members	3.55±0.69	0.015	0.537*
	Provision of extracurricular activities (netball, soccer, rugby, etc.)	3.45±0.69	0.046	0.450*
	Group approaches when evaluating activities and programmes	3.40±0.68	0.007	0.582**
Training opportunities for community project members		3.55±0.69		
	Skills assessment of project members	3.40±0.60	0.016	0.530*
	Education opportunities for community project members	3.50±0.61	0.015	0.537*

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders (continues)

Sustainability indicators (statements)		Importance rated (Mean±SD)	Correlation coefficient (r)	p-value (2-tailed)
Creative abilities of project members		3.35±0.75		
	Clear leadership roles within the project (between the community project members)	3.50±0.69	0.487*	0.029
	Provision of extracurricular activities (netball, soccer, rugby, etc.)	3.45±0.69	0.876**	0.000
Provision of religious support		3.45±0.60		
	Provision of cultural support	3.30±0.73	0.500*	0.025
	Group approaches when evaluating activities and programmes	3.40±0.68	0.496*	0.026
Provision of cultural support		3.30±0.73		
	Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	3.30±0.73	0.476*	0.034
	Basic operational resources (needed for lessons, maintenance, assets, etc.)	3.45±0.60	0.596**	0.006
	Proper infrastructure (kitchen, classrooms, toilets, etc.)	3.40±0.75	0.500*	0.025
	Provision of academic support	3.30±0.73	0.560*	0.010
	Group approaches when planning activities and programmes	3.35±0.59	0.573**	0.008
Provision of cultural support (continues)		3.30±0.73		
	Group approaches when implementing activities and programmes	3.55±0.51	0.503**	0.024
	Group approaches when evaluating activities and programmes	3.40±0.68	0.637**	0.003
Provision of academic support		3.30±0.73		
	Provision of cultural support	3.30±0.73	0.560*	0.010

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders (continues)

Sustainability indicators (statements)		Importance rated (Mean±SD)	Correlation coefficient (r)	p-value (2-tailed)
Provision of extracurricular activities (netball, soccer, rugby, etc.)		3.45±0.69		
	Saving opportunities for the project	3.40±0.60	0.455*	0.044
	Fundraising by the community project members	3.05±0.76	0.473*	0.035
	Clear leadership roles within the project (between the community project members)	3.50±0.69	0.577*	0.008
	Education opportunities for community project members	3.50±0.61	0.450*	0.46
	Creative abilities of project members	3.35±0.75	0.876**	0.000
Integrating traditional knowledge when developing activities (e.g. food preparation)		3.40±0.68		
	The receipt of food handouts	2.80±1.01	0.501*	0.024
	Proper infrastructure (kitchen, classrooms, toilets, etc.)	3.40±0.75	0.024	0.003
Group approaches when planning activities and programmes		3.35±0.59		
	Provision of cultural support	3.30±0.73	0.573*	0.008
	Group approaches when implementing activities and programmes	3.55±0.51	0.556*	0.011
	Group approaches when evaluating activities and programmes	3.40±0.68	0.825**	0.000

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

Table 4.8 Correlations with a large effect between the sustainability indicators' importance rated by SRCS project leaders (continues)

Sustainability indicators (statements)		Importance rated (Mean±SD)	Correlation coefficient (r)	p-value (2-tailed)
Group approach when implementing activities		3.55±0.51		
	Saving opportunities for the project	3.40±0.60	0.629**	0.003
	The receipt of food handouts	2.80±1.01	0.454*	0.044
	Basic operational resources (needed for lessons, maintenance, assets, etc.)	3.45±0.60	0.708**	0.000
	Provision of cultural support	3.30±0.73	0.503*	0.024
	Group approaches when planning activities and programmes	3.35±0.59	0.556*	0.011
	Group approach when evaluating activities and programmes	3.40±0.68	0.716**	0.000
Group approaches when evaluating activities and programmes		3.40±0.68		
	Support for the project provided by the SRCS	3.35±0.59	0.500*	0.025
	Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	3.30±0.73	0.497*	0.026
	The receipt of food handouts	2.80±1.01	0.463*	0.040
	Basic operational resources (needed for lessons, maintenance, assets, etc.)	3.45±0.60	0.449*	0.047
	Education opportunities for community project members	3.50±0.61	0.582**	0.007
	Provision of religious support	3.45±0.60	0.496*	0.026
	Provision of cultural support	3.30±0.73	0.637**	0.003
	Group approaches when planning activities and programmes	3.35±0.59	0.825**	0.000
	Group approach when implementing activities	3.55±0.51	0.716**	0.000

1 = Unimportant; 2 = Less important; 3 = Important; 4 = Very important

SD = Standard deviation

** Correlation is significant at the 0.01 level (2-tailed) ($p \leq 0.01$)* Correlation is significant at the 0.05 level (2-tailed) ($p \leq 0.05$)

Effect size (r): 0.5 = large

CHAPTER 4: RESULTS AND DISCUSSION

The respondents, who were all former SRCS project leaders of the past term, were asked whether the newly appointed project leaders will continue with the current programmes. It is compulsory to compile a transfer report at the end of each term for newly appointed leaders that can use it to plan new and/or to the continuation of programmes. The adoptions of the new programmes still remain the decision of the new project leaders. This seems to be sufficient to transfer projects from term to term.

The results indicated that 80% (16/20) of the followers will continue with existing programmes. The importance of newly appointed project leaders to build on what has already been done, including their innovative ideas, and to continue with activities that still need progress towards sustainability are revealed as strategies to continue with projects. Continuation of activities were especially indicated where all the needs had not yet been met and, thus, are similar to the previous term. It also occurred where the aims, objectives, and programmes were long-term based.

Only 15% (3/20) of the respondents indicated that one term was sufficient to meet all the predetermined aims and objectives. All other respondents revealed inadequate time for a term to complete projects but as one respondent wisely said as a potential solution: *"In most cases the final aims and objectives for a project will take more than one term to achieve, although this might not be the case if the aims and objectives are specifically planned to be achievable within one term"*.

Striving towards a sustainable community project requires accepting responsibility. Community project leaders were asked to indicate whose responsibility they think contributed towards sustainability of a community project. The majority of the respondents (75%; 15/20) indicated that it was the responsibility of the SRCS project leader and committee as well as the community project members. Respondents reasoned that the SRCS members can take responsibility, but this cannot be achieved without the cooperation of the community project members. Thus, sustainability is a shared responsibility between the SRCS and the project.

The respondents (10%; 2/20) who indicated that the responsibility lies with the SRCS indicated that the project leader should be in control and that the community project members only take responsibly after the SRCS has withdrawn. This may only be assured when sufficient skills transfer has taken place which already gives community project members the responsibility and commitment towards the SRCS programmes. The concern is that projects more often require assistance and support to sustain the project and those skills are not the only factor that ensures sustainability. Furthermore, the SRCS can only enter the communities with the support of the community project members. The remaining 15% (3/20) indicated that the community project members should take responsibility to ensure the sustainability of the project. These

project leaders understood the importance of ownership in community programmes progress towards sustainability. Although the community project members should take responsibility the project leader still has the responsibility to manage the SRCS programmes.

Achieving sustainability requires the SRCS as well as the community project members to take responsibility. The SRCS project leaders and their committees should keep the sustainability in mind when planning, implementing and evaluating programmes. The community project members should be part of this process, sharing responsibility and taking control over their own situations.

4.4.3 Food security-related programmes and activities

A total of 85% (17/20) of food security-related programmes and activities were included in the respondents' community projects. Respondents indicated that these programmes and activities included building greenhouses; developing vegetable gardens; breeding animals; feeding schemes; nutrition education; canned food day (SRCS community day); hygiene; and the improvement of infrastructure to support food security-related activities. All SRCS project leaders and their committees are required to participate in the SRCS canned food day which is held annually. The collected foods were then distributed to their community projects.

Lastly, respondents rated the skills and competences of several individuals towards the implementation of food security-related activities. The project leader (70%; 14/20; mean=3.00), SRCS project committee (55%; 11/20; mean=2.95), community project members (55%; 11/20; mean=3.05), and project target group (40%; 8/20; mean=2.70) were all rated as having good skills and competences to implement food security-related activities. The skills and competence percentage were the highest for the project leader (respondent) among the involved individuals. Furthermore, the standard deviations of these individuals were all <1 and, thus, the skills and competences of the individuals were moderately the same. Thus, the respondents believed that individuals and groups involved in the SRCS projects are competent to implement activities effectively.

4.4.4 Phase three: conclusion

From the project leaders perspective the majority of community project members often participate in SRCS programmes and activities with good rated skills and competences. This is a contradiction to the perspectives of the community project members in phase two. The major barrier to participation for community project members identified by the SRCS project leaders was the time available to participate within the school programme. Lack of time available to

implement activities was also experienced as a major barrier by the majority of the respondents. Respondents indicated that community project members' responsibilities were discussed and clarified to them. Most of the projects also received support from the community. Most of the respondents indicated that skills transfer took place between the SRCS and the community project members. Empowerment was seen as the most important aspect regarding project sustainability. The majority of the respondents rated the project programmes, activities, and overall project as somewhat sustainable. All the identified sustainability indicators' importance was considered to be moderately the same. Newly appointed leaders mostly continue with current programmes as most of the project leaders indicated that one SRCS term was not sufficient to meet predetermined aims and objectives.

Results indicated that the majority of the participants think that sustainability is the SRCS project leader, committee and community project members' responsibility. Most of the projects included food security-related programmes and activities which contributed to the relevance of this phase of the study. The SRCS project committee, community project members, and project target group were rated as having good skills and competences to implement such activities. Although these quantitative and some qualitative responses were direct and clear, different stakeholders have different opinions and experiences. Thus the results from all three phases were further integrated to obtain an overall understanding of the SRCS projects' sustainability.

4.5 DATA INTEGRATION OF PHASES

4.5.1 Participation, skills and competences

Although some community project members indicated a lack of participation, the SRCS project leaders believed that they often (50%; 10/20) and always (45%; 9/20) participate. Participation is important towards project sustainability. Green and Haines (2012:38) support this by the statement that participation within community programmes may lead to a pseudo-community where programmes were implemented with well-intentioned motives, but neglected to take the community project members' opinions into consideration. Community project members indicated that participation is required to obtain skills. This was in conflict with the correlation between the aspects ownership and participation (taking responsibility and being involved), and empowerment (improving skills to independent initiating actions) rated as the meaning of sustainability for SRCS project leaders, as the effect was low with no significant correlation ($\rho=0.085$; $r=0.395$). Those members that have participated mostly learned skills from life experience, traditional knowledge and some indicated skills transfer during activities. They also indicated lacking area for possible training opportunities. In contrast 95% (19/20) of project leaders believed that skills transfer took place and that such opportunities were very important

SI (median=4.00). These results clarified that why skills transfer did not take place within certain project activities.

Time was experienced as a barrier towards the project by both the community project members and the project leaders. Although some community project members recommended that activities can take place after the school programme, the project leaders always or often experienced this as a time barrier (60%; 12/20). Personal interest and responsibilities were experienced as a barrier by some of the community project members and the SRCS project leaders (55%; 11/20). Personal needs must first be fulfilled before those of the project target group.

Community project members' skills and competences to participate in SRCS activities became uncertain with a lack of participation. Those whose skills were indicated had limited skills which were in contradiction to what project members rated as good (75%; 15/20) and excellent (15%; 3/20). Some community project members indicated that they are often unaware of their responsibilities and that they would benefit from training. This was also the situation with some projects with regards to SRCS programmes responsibilities due to a lack of participation. Although the majority of the respondents (95%; 19/20) indicated that the community project members' responsibility towards the programmes and activities were discussed and clarified with them, these were not always reflected by the community project members' responses. Nonetheless, the respondents from phase three indicated that responsibilities should only be explained when community project members choose to participate. Both the community project members and the project leaders (90%; 18/20) indicated that projects received support other than from the SRCS. Although the SRCS showed an awareness of some of the additional support provided, results reflected that other involved organisations are not always aware of the SRCS activities and programmes.

4.5.2 Sustainability and sustainability indicators

Limited awareness of sustainability was reflected by community project members. The meaning indicated was aligned with the responses from SRCS project leaders. Empowerment to benefit thereof in the future was the main idea that came from definitions and ratings. Furthermore, related aspects considered as important and the meaning for sustainability by community project members and SRCS project leaders included exposure/awareness, sufficient income and capacity building and production of own food sources (Table 4.7). Although these meanings were related, in some relationships a contradiction occurred. The relationship between exposure or awareness and capacity building ($p \leq 0.01$; $r = 0.575$) was similar to what community project members experienced, as they believed that awareness would attract more people to

become involved within their projects. Furthermore, community project members believed that an increase in project capacity would lead to sufficient income that may provide saving opportunities, which was in contradiction with the insignificant correlation between the aspects “sufficient income” and “capacity building” ($\rho=0.788$; $r=0.064$) which SRCS project leaders rated as the meaning of sustainability. Nonetheless, there was a statistically significant correlation with a high effect between saving opportunities, fundraising by the community project members, and clear leadership roles within the project ($\rho \leq 0.01$; $r \geq 0.5$).

SRCS project leaders considered the sustainability indicators identified from the community project members’ interviews as important (Table 4.9), but these were not always effectively monitored at a project level. A group approach was suggested by community project members to ensure proper planning, skills transfer during implementation, and evaluation of activities and programmes, which would eliminate experienced frustrations. The responses from the project leaders did indicate significant correlations with a large effect between a group approach when planning, implementing, and evaluating activities and programmes ($**\rho \leq 0.01$; $*\rho \leq 0.05$; $r \geq 0.5$) (Table 4.8). Thus, this relationship emphasised the importance for both the community project members and the SRCS project leaders to be involved during these processes.

The majority of the project leaders indicated that project programmes (50%; 10/20), activities (45%; 9/20) and overall projects (55%; 10/20) are somewhat sustainable, whereas the community project members also considered continuation of support provided, but becoming dependant, as an important aspect of sustainability. Although support for the project is a SI, all stakeholders should prevent community project members from becoming dependent on the support provided by reviewing the impact and approach of involvement. The relationship with a large effect also existed between support for the project provided by the SRCS and support for the project by other organisations ($\rho \leq 0.01$; $r=0.874$). Furthermore, these SI is also indicated a statistical correlation between group approaches when evaluating activities and programmes ($\rho \leq 0.05$; $r \geq 0.5$) (Table 4.8). Thus, all stakeholders should be involved when evaluating project activities and programmes.

Nevertheless, project leaders (80%; 16/20) indicated that newly appointed project leaders would continue with supporting programmes over more than one SRCS term. This was in conflict with community project members’ responses that indicated that the initiated plans were not always implemented. The majority of the SRCS project leaders believed that it was both their and the community project members’ responsibility to sustain a project (15/20; 75%), which was also indicated by community project members that they cannot continue with SRCS activities without the support provided, but in contradiction programmes were mostly driven without participation of the community project members.

Table 4.9 Important aspects considered for sustainability by community project members against aspects and sustainability indicators rated by SRCS project leaders

Phase two: interviews	Phase three: questionnaire	
Important aspects considered for sustainability by community project members	Related aspects that means project sustainability to SRCS project leaders 3 = Somewhat agree; 4 = Completely agree	Related sustainability indicators rated by SRCS project leaders 3 = Important; 4 = Very important
Creating awareness of project programmes	Exposure and awareness (community/public/media) (mean=3.35)	Support for the project provide by the SRCS (mean=3.35) Support for the project provided by other organisations (mean=3.30)
Provision or production of own food sources	Production of own food sources (vegetable gardens, livestock, etc.) (mean=3.20)	Saving opportunities for the project (mean=3.40) The receipt of food hand-outs (mean=2.80) Proper infrastructure (mean=3.40)
SRCS term duration	Ownership and participation (taking responsibility and being involved) (mean=3.35)	Group approaches when planning activities and programmes (mean=3.35)
Ownership and participation	Ownership and participation (taking responsibility and being involved) (mean=3.35)	Clear leadership roles within the project (mean=3.50) Group approaches when planning activities and programmes (mean=3.35) Group approaches when implementing activities and programmes (mean=3.55) Group approaches when evaluating activities and programmes (mean=3.40)
Sufficient income, capacity building and ownership	Capacity building (individual and collective strengths and assets within a community) (mean=3.30) Sufficient income (to make payments and operate projects) (mean=3.05) Ownership and participation (taking responsibility and being involved) (mean=3.35)	Fundraising by the community project members (mean=3.05)

Table 4.9 Important aspects considered for sustainability by community project members against aspects and sustainability indicators rated by SRCS project leaders (continues)

Phase two: interviews	Phase three: questionnaire	
Important aspects considered for sustainability by community project members	Related aspects that means project sustainability to SRCS project leaders 3 = Somewhat agree; 4 = Completely agree	Related sustainability indicators rated by SRCS project leaders 3 = Important; 4 = Very important
Personal interest, well-being and responsibilities	Ownership and participation (taking responsibility and being involved) (mean=3.35)	Skills assessment of project members (mean=3.40)
Proper planning of SRCS activities and programmes	Ownership and participation (taking responsibility and being involved) (mean=3.35)	Clear leadership roles within the project (mean=3.50) Group approaches when planning activities and programmes (mean=3.35) Group approaches when implementing activities and programmes (mean=3.55) Group approaches when evaluating activities and programmes (mean=3.40)
Transport for community project members	-	Proper infrastructure (mean=3.4)

Table 4.9 Important aspects considered for sustainability by community project members against aspects and sustainability indicators rated by SRCS project leaders (continues)

Phase two: interviews	Phase three: questionnaire	
Important aspects considered for sustainability by community project members	Related aspects that means project sustainability to SRCS project leaders 3 = Somewhat agree; 4 = Completely agree	Related sustainability indicators rated by SRCS project leaders 3 = Important; 4 = Very important
Support for the project by the SRCS and other organisations	Empowerment (improving skills to independent initiating actions) (mean=3.65)	Support for the project provided by the SRCS (mean=3.35) Support for the project provided by other organisations (mean=3.30) Basic operational resources (mean=3.15) Provision of religious support (mean=3.45) Provision of cultural support (mean=3.30) Provision of academic support (mean=3.30) Provision of extracurricular activities (mean=3.45) Education opportunities for community project members (mean=3.50) Training opportunities for community project members (mean=3.55) Improvement of business skills of the project members (mean=3.25) Creative abilities of project members (mean=3.35) Integrating traditional knowledge when developing activities (mean=3.40)

4.5.3 Food security-related programmes and activities

The results from phase one indicated that 44% (21/48) of the projects included in the archive database included food security-related programmes and activities (September 2010 until August 2011), whereas 85% (17/20) of the respondents from phase three indicated that their projects include food security-related programmes and activities (September 2010 until August 2011). Although not all the project leaders participated in the study during phase three, it can be assumed that the need for more food security-related programmes and activities has increased and more such projects were implemented from September 2011 until August 2013.

SRCS project leaders rated community project members' skills and competences to implement food related activities as good (mean=3). Responses varied between community project members, as some indicated skills whereas other identified training opportunities and that they would be able to implement activities should this be expected from them. A study done in Gauteng area also indicated that community members have the ability to empower themselves to develop vegetable gardens (Mzini, 2006:86). The poor progress made towards sustainability of vegetable gardens at the visited projects was in contrast with the good rating of skills and competences to implement these. Community members also indicated that training is needed for the improvement of food and nutrition knowledge, food preparation skills and vegetable garden development.

4.5.4 Conclusion

Although the SRCS project leaders believed that community project members participated in the SRCS programmes and activities there was still a lack of participation which resulted in limited skills transfer and ownership. Community project members would not be able to continue without the support provided. Many educational and training opportunities arose based on the specific needs at each project which included project and individual development. The opinions and input of community project members towards the projects' functionality and sustainability are very important and should always be considered, as these determine what actions should be taken towards sustainability. Considerations also include the barriers experienced by the community project members and the SRCS project leaders. Skills and competences should be evaluated, but can only be obtained or improved when community project members participate within the project programmes and activities. Community project members' responsibilities should effectively be decided upon and communicated to involved parties to ensure ownership of the project with assistance of supporting organisations. Although sustainability means different things to different people, progress should be monitored in some way, using sustainability indicators which may be an effective and participatory method. The importance of

the different sustainability indicators was understood but some contradictions occurred with the implementation and measurement thereof. All stakeholders should work towards common goals and avoid making projects become dependent on them without any sustainable outcome. Fundraising would provide saving opportunities for projects that have clear leadership roles, but capacity would not necessarily lead to saving opportunities or fundraising. A group approach that includes all stakeholders should be followed when planning, implementing and evaluating programmes over a longer SRCS term, but this was only seen as important, but not implemented. Food security-related programmes may assist community project members to manage their own projects effectively, independent from supporting organisations, and add value to their daily activities and livelihoods. Thus, such sustained programmes may prevent projects from becoming food insecure when a supporting organisation is less active or withdraws from a project.

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CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Within this chapter, the researcher provided an overview of the study with the main findings according to the phases in which the research was conducted against the objectives of the study. General conclusions were made with a further identification of limitations and recommendations that can be used by the SRCS to improve current and develop new sustainable community projects. Lastly, the researcher also included the research gaps for possible future research projects with a final conclusion.

5.2 CONCLUSIONS

In the first chapter of the study, food security was explained as a major global and national concern especially among poverty-stricken households in South Africa. The Student Rag Community Service (SRCS), the student driven non-profit organisation, has been involved in such communities implementing several food security-related activities. Prior to the study it was uncertain which projects were addressing food-security within their activities and programmes and if these projects were sustainable as no specific measurement was being used. The literature, in Chapter Two, supported the use of clear indicators to measure sustainability, which when neglected may lead to community project members suffering from greater food insecurity than before the involvement of a supporting organisation. Thus, this was also the research question which was further answered within this chapter.

In Chapter Three, the researcher explained the study methodology used. A case study was conducted with a mixed methods strategy that included both qualitative and quantitative data collection methods. These methods included the assessment of portfolio documents (phase one), the conduction of interviews (phase two) and a group administered questionnaire (phase three). Chapter Four discussed the results from the assessment which included various aspects and indicators related to the sustainability of the SRCS projects.

5.2.1 Phase one

Objective one

Scrutinise available SRCS projects' documentation stored in the Institutional Archive and Museum (NWU) from the four terms (five years), September 2007 until August 2011, by compiling an electronic database of the projects.

In phase one, all the available data of five years', September 2007 until August 2011, SRCS documentation were compiled in an electronic data base. Data were unprocessed and

consisted of portfolios and evaluation documents compiled for assessment purposes. Assessment documents did not have specific measurements which made it difficult to determine sustainability and/or specific type projects. Collected archive data has been handed over to the Institutional Archive and Museum (NWU) to assist researchers with further research based on the SRCS community projects. Background information can be obtained from documents such as project descriptions, need assessments, vision and mission statements, and programmes which included project activities. Within this study the data of the most recent SRCS term (2010-2011), which included 48 community projects, were analysed to identify projects related to food security (objective two).

Objective two

To identify the community projects which address food security in their programmes and/or activities by identifying themes with further identification of projects with feeding schemes for assessment.

With the achievement of the first objective, 21 food-security related projects were further identified (21/48; 44%) according to the study focus and activities associated with the themes: food and nutrition; hygiene and infrastructure and appliances. These were also further used to identify five physical projects with feeding schemes. These projects mostly address the identified themes and prepared and/or provided food on a daily basis. These projects were further visited in the second phase of the study (objective three).

5.2.2 Phase two

Objective three

To assess the community project members', from the food-security related projects with feeding schemes, experiences with the involvement of the SRCS at their projects by interviewing them.

Focus groups and semi-structured interviews were conducted in phase two of which the method depended on the availability of the community project members. Interview transcriptions reflected the experiences of community project members with regard to the involvement of the SRCS at their projects through positive and negative aspects. Positive aspects included gratefulness and pride whereas negative aspects included dependence, lack of ownership, frustration, time available and expectation. Community project members also had positive and negative opinions regarding their skills and competences. Positive aspects included expected support, and obtained skills and competences, whereas negative aspects included a lack of skills and competences.

Objective four

To assess the community project members', from the food-security related projects with feeding schemes, opinions towards sustainability by interviewing them.

In the interviews community project members were asked if they were familiar with sustainability and what does it mean to them. Some community project members were able to define the term 'sustainability', which was aligned with what the literature defined, but in contrast only one developed vegetable garden (1/3) at the food security-related projects with feeding schemes (n=5) made progress towards sustainability. The researcher grouped sustainability indicators (SI) as: human resources and management; skills associated with activities and management thereof; infrastructure and resources; and the financial aspect. These were used to measure the progress made towards sustainability, but emphasis should also be on aligned aspects which community project members perceived as important.

With the identification of important aspects considered for sustainability by community project members there were also positive and negative aspects. Positive aspects included: positive attitude towards the SRCS's involvement and activities; identification of specific project needs and training opportunities; and personal commitment of community project members. Furthermore, negative aspects included: dependence; limited funds and community project members' capacity; SRCS term duration; and lack of communication and teamwork.

The literature clarified that emphasis should be placed on the assessable resources through the livelihoods assessment, but community project members as well as SRCS project leaders focused on the inaccessible resources by creating a needs assessment "wish list" of what can be done at a project and what their needs were. This made projects become dependent on the SRCS and created more expectations.

5.2.3 Phase three**Objective five**

To assess the SRCS project leaders' knowledge and understanding of project sustainability, of the projects they were involved in, through conducting a group administered questionnaire.

During the last phase of this study a group administered questionnaires was conducted with SRCS project leaders as the sample (20/46). Questions were based on the themes: participation, skills and competence; sustainability and sustainability indicators; and food security-related programmes and activities. Respondents indicated that the majority of

community project members always or often participate in SRCS activities and they have sufficient skills and competences. There was no significant difference between the barriers experienced by community project members as rated by project leaders. Furthermore, there was a relationship between the barrier, time available to plan, implement and evaluate activities and programmes, experienced by SRCS project leaders, which depended on what needs to be done, the time available or allocated and evaluation that needs to follow. Leaders identified empowerment as the most important aspect regarding project sustainability. Even though the majority of leaders rated their projects as somewhat sustainable, no measurement tool was being used. All pre-determined SI were considered as important to very important. The projects leaders realised that one SRCS term was not sufficient to meet aims and objectives, thus a long term approach would be more appropriate to ensure project sustainability. Furthermore, the SRCS project leaders understood that project sustainability is a joint responsibility between them, their committees, and the community project members.

5.3 LIMITATIONS

5.3.1 Phase one: electronic database and food security-related projects

Since the available documentation was compiled for the SRCS organisation and not for research purposes, various documents were in a scrap-booking format, of which some consisted of A5 sized cartons and/or three dimensional objects. Although, students were creative in the compilation of their projects' documentation, these documents made it difficult to capture the data electronically and take up substantial storage space. Archived documents were stored as they were received and not only at the end of each term. Documentation is incomplete when some of the documents are stored in archive containers of the one term which should belong to a previously submitted term. Thus misfiling of documentation may occur and might also be confusing when researching data from a specific term.

Portfolio data were not always clear on which aspects were being addressed due to a lack of structure. Where the documentation included subheadings, different aspects were introduced which made it easier for the reader to follow. Some documents which did not include dates, names and/or the type of the project, made it difficult to organise. Thus, the researcher studied the captured electronic data, made use of the data that were available and sorted the data as considered desirable and relevant towards the projects. Some of the projects had more documentation than others, thus it can be assumed that the missing documentation was not compiled, stored or may be misfiled. Duplicates included in the documentation were captured but were not always legible, thus served no purpose.

5.3.2 Phase two: focus groups and semi-structured interviews

The interviews were conducted in both English and Afrikaans, but the language barrier remained between the researcher and the community project members. Thus the researcher made use of a translator during the project interviews and the participants were granted the opportunity to provide answers in Setswana, which was their home language. It was also required from the researcher to elaborate on some of the questions and comments to ensure that the information was correctly understood.

5.3.3 Phase three: group administered questionnaire

SRCS project leaders were difficult to access after projects have been carried over. This might be that they do not completely understand the importance of the research or they might not have the time to participate due to their new responsibilities. With the conduction of the questionnaire many of the participants were unable to attend the arranged meeting, thus questionnaires were completed in the SRCS office, also at the NWU campus, when convenient to the respondents. The respondents might feel that they and the community project members were experiencing more barriers towards participation, but these barriers were based on the data from the interviews (phase two). Thus, space allocation should be included in the questionnaire for additional comments.

5.4 RECOMMENDATIONS

5.4.1 Phase one: electronic database and food security-related projects

The archive personnel members working with the SRCS documentation might not always be familiar with all the different types of documents. Thus the SRCS should submit complete, already organised documents as they should be stored. A checklist can be used to ensure the completeness of the submitted portfolios; as well as a cover page that includes the project name, drivers (hostel / NWU Potchefstroom project), type (primary school / high school, etc.), and term (months and years). Furthermore, the format in which project leaders should submit their portfolios should also be standardised. Research purposes would prefer that portfolios are in a typed and in an A4 format, so that these can easily be studied and stored. The SRCS should consider the electronic submission of documentation, to the archive department, of which the evaluation documents could still be printed (if needed) and returned to the archives after evaluation. After each term, the documents should immediately be sorted and delivered to the archive department. This will ensure that newly appointed project leaders and researchers would have easy access to all the data which will assist them in the planning and evaluation of projects and research done on projects.

5.4.2 Phase two: focus groups and semi-structured interviews

Although the majority of the participants have a positive attitude towards the involvement of the SRCS at their projects, it is important that the SRCS properly plan their activities and programmes. A needs assessment should be done through a group approach to identify needs with a further sustainable livelihood assessment to determine the available resources. This group approach should also be a 'bottom up' approach and should continue with the planning, implementation and evaluation of projects to ensure that these become sustainable.

The support the SRCS provides to their community projects should not create dependence, but should assist community project members to develop coping strategies, create saving opportunities, and develop skills and competences. The projects' departmental programme should be considered, thus planned programmes should not interfere but support their programmes. This may require the SRCS to contribute towards this programme or visit schools after academic hours. In addition to the project target group, the SRCS should be more focused on the community project members to ensure that skills transfer takes place within programmes. Thus, the SRCS can train the community project members, but when the skills are transferred to the children (target group) the SRCS should only assist in the implementation process. The community project members should be able to take ownership of their current situation and a further group approach should be used to evaluate the activities that are being carried out.

Community project members should be made aware of the sustainability and how it can be achieved. Thus the programmes should enable the SRCS to measure sustainability and to indicate when they will withdraw from the projects. The involvement of the SRCS project leader should be extended over more than one term (long term approach), to ensure that set the aims and objectives can be achieved or proper progress is made towards sustainability. Alternatively, set aims and objectives should be planned over more than one term, indicating the progress that should have been made at the end of each term. Thus, newly appointed leaders will continue with the same aim and objectives.

5.4.3 Phase three: group administered questionnaire

The SRCS management should emphasise the importance of research to their SRCS project leaders. Project members should further be made aware of the past, current and future SRCS research studies so that these can be included in their personal and project programme planning. It is recommended that project leaders are accessible for at least another two to three months after the project has been carried over to the newly appointed leaders.

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SRCS project leaders should consider to minimise barriers experienced in participation by community project members when planning programmes and activities which might increase the participation percentage. With the implementation of programmes and activities, project leaders should not interfere with the school programme, but rather support and improve school activities which are included in the school curriculum. The SRCS management should further take the barriers experienced by the project leader in consideration when improving and simplifying the organisational procedures. This should also be done with the implementation and the evaluation of the projects, excluding unnecessary documents.

Before several responsibilities are granted to community project members it is important to assess their knowledge through a skills assessment. The strengths and opportunities that arose from the assessment would determine the responsibilities and the requirements thereof. Community project members could be made aware of their responsibilities through activities such as workshops and meetings held prior to the implementation phase. This can also be used to improve skills and competences of the project leaders and the community project members. It is recommended that the SRCS approach professional assistance to ensure that accurate information and skills are transferred from the SRCS to the community project members and from the project members to the target group. The community project members' skills obtained from the activities and training opportunities should be implemented and evaluated to ensure the sustainability thereof.

The SRCS should promote awareness of programmes and activities to other supporting to ensure that they are working towards common aims and objectives. This will ensure that implemented programmes become more structured and goal orientated which may increase the sustainability thereof. Project leaders should strive to transfer skills to the community project members and monitor further transfer to the target group and community. This will improve the sustainability as the target group mostly changes annually and community project members tend to be involved at projects longer.

The term 'sustainability' is a broad term which may lead into many directions, thus it should be measured with the use of clear sustainability indicators. Therefore, evaluations should rather focus on the sustainability of specific programmes, including the progress towards sustainability, rather than the overall project, as some of the programmes might continue over more than one term. The SRCS should plan programmes over more than one term, which will allow project leaders to focus on the progress towards sustainability of programmes instead of having new programmes or activities that cannot be sustained within a single term. Sub-objectives can be included, which are aligned with the long-term aims and objectives. This may also improve the quality of the activities rather than the quantity of thereof. The SRCS should have an 'exit

strategy', when they plan to withdraw from a project which should also be known by the community project members. To improve project sustainability, the SRCS should promote 'self-help' rather than 'outreach' which includes the hand-out of food parcels and basic necessities. This will promote independence which may lead to increased ownership and building capacity.

SRCS project leaders should be aware of previously implemented programmes and build on what has already been done at the projects. This will eliminate mistakes and funds wasted on programmes that have failed before. The annual transfer reports can be used for this purpose, but the archive documentation would provide a better insight of what has been done over the past terms.

A shared responsibility of the sustainability of programmes should consist between all stakeholders throughout the planning, implementation and evaluation processes. The SRCS should have less responsibility after they have withdrawn as it then will remain the responsibility of the community project members as independents. It is advisable that the SRCS follow-up and evaluate completed programmes to determine the enduring impact thereof on the community.

5.4.4 Future research

The research gap occurs with the assessment of the sustainability of projects where the SRCS have already withdrawn from the project after being involved for many years. SI can be used to measure the progress made towards sustainability of current as well as previously involved projects. Further related to the focus of this study, research can be done on the food and nutrition education skills and knowledge of community project members. This can be used to ensure that such training is cultural sensitive and realistic towards the specific projects. More comprehensive research can also be done on the knowledge required by SRCS project leaders and community project members to develop sustainable food-security related programmes and activities.

5.5 CONCLUSION

Research question

Which of the SRCS projects addressed food security through their activities and programmes and were these projects sustainable?

The results indicated which SRCS projects (21/48) addressed food security through their activities and programmes (Table B1) by using the related themes namely: food and nutrition, hygiene, and infrastructure and appliances. Five projects with feeding schemes (5/21) mostly addressed these themes through their project activities and programmes.

Although SRCS project leaders indicated that community project members participate and had sufficient skills, this was not indicated by the community project members. Community project members indicated that participation was a requirement to obtain skills, but project leaders did not reflect that there was a relationship between these aspects. Both the SRCS project leader and community project members believed that exposure or awareness would lead people to become more involved in projects. In this study ownership and participation depended on whether projects have sufficient funds available to implement programmes. Furthermore, there was a relationship between capacity building, empowerment and production of own food sources, of which capacity and empowerment were also supported by the literature. Skills development may also lead to the development of a sustainable vegetable garden.

Since there were no measurement tools used to determine the sustainability of projects within the archived assessments and portfolios, SI from the literature were used to identify progress made towards sustainability. The importance of the SI used within this study were agreed upon by the SRCS project leaders and by the aspects community project members considered as important for sustainability, but these aspects were not always implemented at the projects.

The SI project support provided by the SRCS and other organisations had a relationship, thus all organisations should prevent actions or activities that will lead projects to being dependent. Although the SRCS was aware of the other organisational support, these organisations were not aware of the SRCS's activities and programmes. All stakeholders should be involved and aware of support provided to ensure working towards the achievement of common long term project sustainability goals. Results also indicated that this is especially important when evaluating activities and programmes.

Initiating plans without implementation may also lead to unsustainable projects as this may breach the trust between the community and the supporting organisation. When newly

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appointed student leaders do not continue with a long term approach to achieve sustainability, programmes became unsustainable. A community project member identified that the SRCS was working in “*silos*”, thus no leadership roles or responsibly were carried out by the community project members to sustain project programmes. Results indicated that a group approach should be followed through, when planning, implementing and evaluating programmes.

The needs assessment did not clarify the skills of the project community members, but the creative abilities of some of the community project members have been improved. Thus some progress was made, but sustainability required the assessment of skills to ensure that proper training and development takes place in all the required areas. The vegetable garden of only one (1/3) project was identified as making progress towards sustainability. Vegetable gardens became unsustainable when there was a lack of maintenance and equipment, and when community project members did not have access (transport) to these gardens.

Although community project members proposed some ideas for saving opportunities the projects did not have any present saving opportunities which will also not necessarily increase with an increase in project capacity. Some archive assessments indicated that projects were sustainable, with no measurement, and project leaders indicated that projects were somewhat sustainable, but many community project members indicated that they cannot continue without the programmes without the support of the SRCS. They indicated that their commitment towards the project would only ensure continuation of normal project activities. Thus limited progress towards the sustainability of the investigated project' programmes has been made.

CHAPTER 6: RESEARCH ARTICLE

6.1 ARTICLE

Food security-related community project members' opinions towards sustainability

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Abstract

South Africa is food secure at a national level, but some households experience food insecurity due to vast income inequalities. Community projects may address food security in their programmes and activities. Unsustainable projects may lead to communities suffering from greater food insecurity. The Student Rag Community Service (SRCS) is a non-profit student driven organisation of the North-West University (NWU), Potchefstroom, South Africa that is involved in low-income communities suffering from poverty. Programmes were not assessed against clear indicators thus the sustainability thereof was uncertain. This article focuses on the opinions of community project members, from SRCS food security-related projects with feeding schemes, towards sustainability and was part of a greater study that assessed SRCS projects. A qualitative research approach was used to address the reported objective. Focus groups and semi-structured interviews were conducted with community project members at food related-projects with feeding schemes (5/21). A better understanding of their awareness and definition of sustainability was obtained as well as the aspects they considered as important for project sustainability. These aspects were grouped as positive and negative. Positive aspects included community project members' attitude towards the involvement of the SRCS, identification of special project needs, and personal commitment of community project members. Negative aspects included dependence, limited funds and community project members' capacity, SRCS involvement period duration, and lack of communication and teamwork. The results highlighted the change in approach to ensure sustainability. Limitations experienced included a language barrier between the researcher and the community project members. The study may assist similar projects to improve or develop sustainable projects.

Background and motivation

'Community engagement' (CE) projects address 'food security' as a global, but also as an issue for South Africa. The country's production capacity made it food secure at a national level, but some households continue to experience food insecurity due to vast income inequalities (Altman *et al.*, 2009). High food prices are a constant challenge that is the main cause of food insecurity (McDonald, 2010; Ruysenaar, 2013; Taylor, 2013). According to Du Toit (2011), poverty is also associated with food insecurity. Poverty increases more rapidly than employment opportunities (Go, *et al.*, 2009; Statistics South Africa, 2013).

In South Africa CE has been formalised as an important focus area of Higher Education Institutions (HEI) (Akpan, *et al.* 2012; Maistry and Thakrar, 2012). The Student Rag Community Service (SRCS) is a student driven non-profit organisation (NPO) of the North-West University (NWU), Potchefstroom, South Africa that is activity involved in food security-related

programmes in the township and informal surrounding areas. The purpose of the SRCS is to give hope and inspire change within the community by focusing on low-income community project members suffering from poverty (Weyers and Herbs, 2010).

Students involved in the SRCS activities are volunteers who develop programmes based on the needs assessment of the community projects. Annually new project leaders are appointed who are often unaware of previous years' activities which may result in programmes becoming unsustainable when the group separates (Ruuska and Vartiainen, 2005). After each SRCS term, each SRCS project leader compiles a portfolio to be assessed by the organisation and for recordkeeping in the Institutional Archive and Museum (NWU).

The concern arises that CE programmes are not assessed against clear indicators (Pienaar-Steyn, 2012). When food security-related activities, such as vegetable gardens are unsustainable this may lead to greater food insecurity (McDonald, 2010). In the greater study, it was uncertain which SRCS projects address food-security and if projects are sustainable. Thus, the need occurred for a localised study that investigated the research gap in the assessment of food security-related activities and programmes, especially within the SRCS projects. This may assist community development supporting organisations to improve current projects and initiate innovative developments. Thus, the aim of the greater study was to assess the food security-related projects of the SRCS to promote sustainable development of community projects. This article reported on one of the main study objectives to assess the community project members', from food security-related projects with feeding schemes, opinions towards sustainability.

Food security in South Africa

Sufficient access to food is the core challenge with regards to food security (Du Toit, 2011; Kuzwayo, 2008; McDonald, 2010). Food security is defined as the availability of adequate and sustainable supplies of basic food stuffs by all community members (Du Toit, 2011; Kuzwayo, 2008; Labadarios *et al.*, 2009; McDonald, 2010). After South Africa became a democratic country in 1994 inequalities were eliminated in areas such as education, health, employment, human wellbeing and rights, and access to services and infrastructure (Labadarios *et al.*, 2009; Statistics South Africa, 2013). Many improvements have been made, but the country is still experiencing poverty, unemployment, rapid increases in food and fuel prices, high energy tariffs, as well as interest rates (South Africa, 2008; Labadarios *et al.*, 2009). As a Sub-Saharan country, in comparison to other countries, South Africa experiences the greatest extremes of income inequality (Altman *et al.*, 2009a:345; Faber *et al.*, 2011:22; Statistics South Africa, 2013).

Sustainability

Sustainability is a challenging concept with a long-term approach that demands the continuation of benefits, implemented programmes and availability of resources within a project so that these are part of the livelihoods of future generations even after the developing organisation is no longer involved (Mog, 2004; Niesing, 2012). Furthermore, sustainable development can be defined as “defined activities carried out by defined people with a defined end point in mind at a defined cost and over a defined period of time” (Bell & Morse’s, 2008:97).

Sustainable development in community projects

The community-based participatory research can be used to determine community needs and assets. The research ensures that proper planning can be conducted and that funding can be allocated to local community projects (Lazarus *et al.*, 2014). The lack of proper planning may lead to unsustainable futures (Holm, 2014). Background information needs to be obtained from the community members and the physical project within its environment before the conduction of the needs assessment so that situation analysis can be created. This is supported by Hussein (2002) who states that an understanding of community members’ experiences should be obtained before developing programmes. Needs identification from community members provides project ownership (Holm, 2014).

In the study done by Lazarus *et al.* (2014) the researchers obtained information through the participation of youth, adults and supporting organisations to implement projects and ensure development. Community assets and needs were identified through workshops, questionnaires, interviews and community engagement processes. Community asset mapping is done through plotting physical assets in the community area (Lazarus *et al.*, 2014). These assets may include buildings and structures, health services, community members’ strengths, educational services and projects, community organisations, governmental services, religious organisations, natural environment, economy and employment opportunities (Railton Foundation and Stellenbosch University, 2010). After the assets and needs have been identified, recommendations were made by the supporting organisation within a community meeting from which priority actions were further identified.

Another study done by Kloppers (2014) based on corporate social responsibility also made use of a participatory process and mapping. When needs were decided upon, an agreement should be entered, such as a memorandum of understanding (MOU) with the community and the supporting organisation that clarifies the roles within the projects, including an exit strategy that allows withdrawal and indicators to measure success. This is also supported by Holm (2014) who states that partnerships should be created with an exit strategy that ensures sustainability.

Lazarus *et al.* (2014) highlighted the importance of developing a relationship and partnership with communities which is a challenge to sustainable community development due to past dominations and inequities.

Participation is seen as the most important aspect of the implementation of sustainable community development in community projects. The basis of participation of community members needs to be decided and clarification would be required within the process where all community members are involved, especially when responses are beyond limits (Cornwall, 2008:272). The typology of participation can be summarised as follows (Cornwall; 2008:272; Pretty, 1995:1252):

- Manipulative participation: Community representatives are on official board, but do not have power to make decisions.
- Passive participation: Community members are being informed on decisions made without considering community members' responses.
- Participation for material incentives: Community members participate to receive food, cash or other necessities.
- Functional participation: Community members participate through interaction and shared decision making to meet specific project objectives. This occurs after major decisions have already been made by the supporting organisation.
- Interactive participation: Community members take ownership and form part of group discussions to develop action plans to ensure sustainable development. Interdisciplinary methodologies are being used that focus on multiple perspectives and implement learning processes.
- Self-mobilisation: Community members take control over resources and initiate to partake without the supporting organisation. Supporting networks are formed, especially with the support of government and non-government organisations.

The last two participatory categories, interactive participation and self-mobilisation, promote participation processes and allow community members to have ownership over their resources. Interactive participation will take place during the implementation of community projects, whereas self-mobilisation will be the ideal outcome after the supporting organisation has withdrawn from the community project and the project becomes sustainable.

According to Bell and Morse (2008), the Academy of Sustainable Communities (ASC) considers the following as important aspects of sustainable communities:

- Governmental participation and leadership in the management communities.
- Transport, connectivity creating work opportunities and health services.
- Accessible public, private and voluntary services.
- Safe, environmentally friendly, living environment.

- Successful and growing local economy.
- Well developed infrastructure with community culture and activities.

These aspects can also be seen as barriers to achieve sustainability within community projects.

In a study done by Trier and Maiboroda (2009) where community members' perceptions and attitudes towards sustainability were explored, it was indicated that interview and focus group responses gave them in-depth information based on social aspects of sustainability. The focus moved from technology aspects to social aspects of sustainability. Dedication in the small community supported the community members' social consistency. Basic skills might need to be developed, to promote connectivity and relationships, and to become sustainable (Trier & Maiboroda, 2009). Supporting organisations should fulfil the role of a motivator, instead of a facilitator, and promote community ownership (Trier & Maiboroda, 2009). Awareness was created that influenced the community members to adapt their own livelihoods that promote sustainable development.

Methodology

Research approach and design

A case study was conducted within the greater study with the use of different data collection methods (Nieuwenhuis, 2010b). The research strategy of mixed methods was followed that included a combination of qualitative and quantitative methods and data (Cresswell, 2014; David and Sutton, 2011; Ivankova *et al.*, 2010). The reported objective followed a qualitative approach through focus groups and semi-structured interviews.

The researcher used inductive reasoning for the mixed methods strategy as the research focused on specifics, the food security-related SRCS projects with feeding schemes (Delport and De Vos, 2003). As this study is a case study, generalisation was not the purpose (Nieuwenhuis, 2010b), but to obtain a better understanding of the SRCS projects' sustainability. A pragmatic worldview was used to the collected data as the researcher assumed that a more complete understanding of the research problem could be obtained (Cresswell, 2014:19). Epistemology focused on how community project members know the reality of sustainability by exploring their opinions. The research was conducted with a post-positivist perspective which is suitable with a pragmatic worldview (Nieuwenhuis, 2010a).

Sampling

Purposive sampling was done to identify all the available food security-related projects with feeding schemes (population) in the greater study (5/21). These projects have further been used with a non-probability, convenience sampling method to invite all available and active

community project members that wished to partake. This method was suitable as the participants were easily and conveniently available (Laher and Botha, 2012:92; Maree and Pietersen, 2010).

Data collection and analysis

The focus groups and semi-structured interviews assessed the community project members' from food related projects with feeding schemes (5/21), opinions towards sustainability. The method used was determined by the community project members available and involved in the projects during the visit. Questions introduced and defined the direction of the information needed (Nieuwenhuis and Smit, 2012) and included unstructured and open-ended questions as the researcher identified new, relative emerging lines as they occurred (Cresswell, 2014). Questions were kept to a minimum of four main questions, which elicited the opinions of the participants (Creswell, 2014). A translator assisted the researcher and community project members where a language barrier occurred. All interviews were audio recorded with the consent of the participants and transcribed for data analysis. Thematic analysis was conducted by two independent researchers (Kawulich and Holland, 2012).

Credibility and trustworthiness

The objective reported on, forms part of a mixed methods approach in the greater study which ensures the trustworthiness of the obtained data (Nieuwenhuis, 2010b). The description of the participants were critical, thus the study is externally valid towards the sample and this means that the results could be generalised towards the population (food related-projects with feeding schemes) (Maree and Van der Westhuizen, 2010). The observations and field notes made, also improves the validity of the data found (Guthrie, 2010). Two independent researchers separately selected and compared themes as they occurred in the interview transcriptions. The trustworthiness of the data is thus increased when the correct interpretation thereof is ensured (Nieuwenhuis, 2010b).

Ethical considerations

The research proposal was presented to a group of researchers and specialists in the School of Consumer Sciences (NWU) and the African Unit for Trans-disciplinary Health Research (AUTHeR), and was further reviewed by the Health Research Ethics Committee of the North-West University (HREC, NWU) (Creswell, 2014:95) and ethical approval was granted after all the ethical aspects were considered (NWU-00040-13-A1). The researcher operated through the SRCS (NPO002-000, NWU), as an independent researcher and obtained permission to visit identified projects.

The researcher compiled a consent form which informed the participants about the aim and contribution of the study, duration of the interviews, and also ensured them of their anonymity and privacy. The consent form was also used to gain the permission of the participants, regarding any invasion of their privacy (David & Sutton, 2011:47). No incentive was given to the participants as it is in contradiction with project sustainability. Feedback was given to the community project members whose projects were visited in writing and explained by visiting the project for the second time. Further feedback was given to the SRCS organisation in a formal meeting for future development and improvement of community projects.

Results and discussion

In the greater study food security-related projects were identified with further focus on projects with feeding schemes (5/21) which were assessed as objective of this article. These projects were chosen as one of their most important daily activities includes the provision and preparation of food. Within one SRCS involvement period, the food security related-projects (n=21) mostly addressed activities associated with personal hygiene (17); food hand-outs (16); improvements or development of buildings (15); vegetable gardens (14); hygiene hand-outs (12) and smaller equipment or structure fixture or detachment (12).

The five projects within the feeding scheme's target group focused on Early Childhood Development (ECD) (2), Child and Youth Development (CYD) (3) and Vulnerable Adults (VA) (1). The ECD projects included a day care centre and a pre-school. The day care centre's (n=110) target group and the pre-school's (n=75-100) target groups were children who were six years or younger. The CYD projects included two primary schools whose target groups were school children (n=960; n=100-105). One of the projects was focused on CYD and VA as their target group was disabled individuals between the age of nine and 39 years (n=1-25).

Community project members involved in these projects were questioned during focus groups (four to nine participants) or semi-structured interviews (one participant) depending on the availability of the community project members. These members included volunteers or employees of the project, and contributed to the project being a care giver, educator, cook, headmaster or chairperson.

The objective reported on was based on the following two questions included in the interview schedule:

- Have you heard of sustainability, and what does it mean to you?
- Which aspects do you think are important to make the project successful?

Sustainability awareness and defined by community project members

Participants were asked whether they had heard of sustainability and what it meant to them. Transcriptions indicated that some participants have an awareness of sustainability and were familiar with the term and the meaning thereof.

'It is to keep a thing in its status. I think so.'; '...a project should benefit people overtime, so sustaining it is also a lesson to other people that you see, for it to remain like this...we need to do like this.'; 'We do know that word... our centre is being sustained because of the hundred and eighty per child that has been issued each and every month...'; 'What makes the centre to be standing up until a further longer process.'

One participant compared sustainability to a rubber band and further explained that sustainability is using the minimum resources and make sure that they become beneficial for the future.

'...you stretch it, you pull it and then you sustain it'; 'So it means to me, you work with the minimum resources and then you make sure that they become beneficial for the future. You stretch them for the future, while you have this limited resource'

This participant had a good understanding of the meaning of sustainability and also indicated that their vegetable garden was sustained. Further, emphasis was placed on the importance of growing project assets as future generations can also benefit from them. The literature described sustainability as the continuation of benefits, implemented programmes and the availability of resources within a project so that the present needs are fulfilled and that they are also part of the livelihoods of future generations even after the developing organisation is no longer involved (Mog, 2004; Mzini, 2006 and Niesing, 2012). The practical definitions provided were different for each participant, but aligned with the literature. According to Muller (2009), sustainability requires a change in the approach which requires innovation, creativity and learning to take place.

Some participants had heard of the term, but they were uncertain about the meaning thereof, while other participants had not heard of the term. Thus, it is of great concern that sustainability may not be focused on as community project members were not all aware of the term and the meaning thereof. This is particularly worrying when considering projects that involve external funding into a community and when supporting organisations' project leaders change annually and the organisation is only involved for a certain duration annually. Projects can only make progress towards sustainability when sustainability is considered through the development process, which includes the planning, implementation and evaluation of programmes and activities. This requires community project members to take ownership of the process towards sustainability. Thus, the important aspects they consider as important for sustainability should

form the building blocks in the development process as these may have a positive or negative influence on project sustainability.

Important aspects considered for sustainability by community project members

Since there was a general great lack of awareness and uncertainty about the meaning of sustainability by some of the participants, the researcher was required to explain this concept to the community project members in simple, understandable terms. Thereafter, the community project members were asked which aspects they think are important to make their project successful to ensure project sustainability.

Positive aspects

Positive attitude towards the SRCS's involvement and activities was revealed to achieve project sustainability. Some skills were transferred ('*they come here, teach the children...*'; '*they help us to play with the children and learn them many things*') and support was provided ('*...we work well together with the school and the university*') which was also being done through activities such as training ('*...they taught us what we must do...*'. '*I can take a box and make a car, I do not have to use money...*'). Responses indicated that the SRCS project leaders can also learn from community project members ('*...if we do not know such a thing...we can learn from them and they can learn from us*'). They further believed that the involvement of the SRCS creates an awareness among community project members which was seen as the first important aspect considered for sustainability. This was experienced in projects where the infrastructure development included vegetable gardens that created an awareness of the SRCS's involvement. According to the participants, this may lead to more support provided to a project ('*You see, you sustain that, you develop and sustain it, and you attract something.*').

Identification of specific project needs and training opportunities were some of the positive aspects revealed. Community project members of one project indicated that they have a lack of skills when working with disabled children and adults ('*we definitely need some skills with these children*'). Community project members identified that some project's activities may require professional assistance, such as a qualified nurse, social worker and a physiotherapist. Furthermore, community project members identified that they need to improve their business and operational skills to ensure project sustainability ('*I have been working there for so long, there are things I do not know...clearly we do not have much information to run the centre smoothly*'; '*The teachers who are involved in the ECD must obtain more skills*'). These training needs also include some opportunities for the SRCS project leaders to improve skills ('*...they just sit down with the children. So that is things you do not know.*').

Personal commitment of community project members was a positive aspect revealed as the participants indicated that they were still committed to the community project even though they had limited funds. Thus, the participants considered personal interest of loving and caring for the well-being of the children as an important aspect of sustainability. It was also important that community project members should have a personal interest to become involved and empowered through the SRCS programmes (*'...the love for the children is the thing that makes us stand up in the mornings and come to work'*).

Negative aspects

Dependence was a negative aspect revealed as many participants do not see their programmes as being sustained without the assistance of the SRCS (*'...I have not seen any ECD project without those students mam.'*; *'They do not grow without them.'*). The concern arose within this study whether community project members would take responsibility and ownership of programmes to ensure the sustainability thereof (*'...Very much, mostly I fear to ask the teachers to do extra things...'*). Community projects also received support from other organisations which may lead to projects becoming dependent on food supplies (*'...the people from the army they always come, maybe after three months, and then they give a plenty of food...'*). Furthermore, one of the projects recommended that they should have a partnership with an organisation or individual which will provide the necessary funds to implement programmes (*'I think the most important thing is to get someone who can adopt us'*; *'...we will get something, we can do something.'*).

Although vegetable gardens may contribute to the food supply for feeding schemes and is seen as an important aspect of project sustainability, community project members still identified the need for the provision of food (*'...we are still going to need food...to put this school where you can say: the school has one, two and three...'*; *'...we still need to say now the garden is fine, then its sustained.'*; *'Because when you say the garden is fine...the learners may have food on a daily basis'*). Further, one of the projects indicated transport as an important need and aspect to sustain their project (*'Transport, we need the transport, yes'*). This project target group was children who became dependant on public transport as they lived a long distance from the project. Thus, the participants indicated that with transport they will be able to take the children to and from the school and that such transport will also assist community project members to maintain their vegetable gardens that are at different locations.

Limited funds and community project members' capacity were also negative aspects revealed. Community project members identified funds as a need (*'It is not enough because of most the money we are buying food'*; *'...the money the government or department is giving the school, does not*

always cover all the learners'; '...we also have lesser funds...') and as an important aspect of sustainability. They indicated that with an increased community project members' capacity within the project, fundraising would be possible and that they should take ownership (*'We must just have more staff so that we can do fundraising...must not only sit and say student must help us'*). Limited funds prevent opportunities to increase community project members' capacity. This can also be seen as community project members becoming dependant on the supporting organisation. Furthermore, responses also indicated that limited funds may result in community project members that become self centred by looking after their own needs before the needs of the project (*'When I get money, I look after my needs, not helping the children or the ECD to grow first...'*). A participant indicated that the younger generation were not willing to work without remuneration and, thus, their own financial well-being became a priority.

SRCS involvement period duration of an SRCS project leader at a project was further indicated as an important aspect identified by community project members. When initial plans, such as those identified with the needs assessment, were not carried out at a project the community project members became frustrated with the SRCS visiting their project. One participant felt that the SRCS period duration resulted in improper planning which was a frustration that repeatedly occurred and needed attention if the SRCS planned to continue with their involvement at their project. The participant believed that an extended period involvement would give the SRCS project leader the opportunity to complete and sustain what had been started at the project. The participant further showed his frustration towards the appointing of new project leaders each period, especially when new programmes were being implemented (*'...next year it is another project leader.'*; *'Now in most cases what is happening, you have a good project, you start it, you implement it, and you do not sustain it'*; *'...they put everything on paper, but at the end of the day those does not materialise...'*). It was suggested that the SRCS period should be extended to at least two years, and, thus, two SRCS periods should be carried out by one project leader or the new project leader should continue with the same programmes until it has become sustainable.

Lack of communication and teamwork

Responses indicated that there is a lack of communication when support is provided to projects. This lead to supporting organisations' activities which did not contribute to programme objectives (*'...all they said were: Why didn't you tell us that your school was clean and then we didn't have to bring these pieces?'*). Furthermore, a lack of communication occurred at community projects between members (*'She is the chairperson, but mostly she don't know other duties as a chairperson...How must we do? Even caregivers...'*). The lack of participation developed a need to involve community project members and to work as a team (*'So that when a student leaves, these*

educators proceeds or with this project to sustain it.'; '...lets involve the teachers and let the people work as a team').

Conclusion

In the interviews community project members were asked if they were familiar with sustainability and what does it mean to them. Some community project members were able to define the term 'sustainability', which was aligned with what the literature defined, but in contrast only one developed vegetable garden (1/3) at the food security-related projects with feeding schemes (n=5) made progress towards sustainability. Results indicated that supporting organisations should consider aspects community project members consider as important as this may have a positive or negative influence on project sustainability. Positive aspects revealed included a positive attitude towards the SRCS's involvement and activities; identification of specific project needs and training opportunities; and personal commitment of community project members. Furthermore, negative aspects revealed included dependence; limited funds and community project members' capacity; SRCS involvement period duration; and lack of communication and teamwork.

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ADDENDA

ADDENDUM A: DATA COLLECTION DOCUMENTS

Letter of informed consent (phase two)



Assessment of the food security-related projects of the Student Rag Community Service Potchefstroom Campus, North-West University

STRICTLY CONFIDENTIAL

You are invited to partake in a focus group interview that will be held on the predetermined date and time indicated below. For your convenience we will visit you and your group at the project. This interview will be an informal group discussion that may include five to nine people from your project. The purpose of the interview is to obtain information about the group's perceptions, attitudes and experiences with the involvement of the SRCS at the project. We strongly value your input and your role in the community. The information obtained from the interview will be treated as confidential and will be used only for research purposes. Thus, no names of participants, projects and identifying data will be made known in the report. The interview will take approximately 15-20 minutes of your time. It will be audio-recorded for data analysis purposes and the researchers might possibly take notes during the interview.

By signing this consent you understand and agree to partake in this focus group interview. Participation in this study is completely voluntary and you are free to withdraw from the study at anytime. Ethical approval for this study was obtained from the Ethics Committee of the North-West University, the Student Rag Community Service, and the academic and student management of the University gave permission to perform this study. If you require more information, please do not hesitate to contact Ms Pianca Swart (researcher) at 072 060 9426, Dr Hanli de Beer (supervisor) at 018 299 2483 or Mrs Christi Niesing (supervisor) at 018 299 2089.

Please consider this invitation. We are looking forward to meeting you.

Date of interview: _____ Time: _____

Name of participant _____ Project: _____

Signature of participant _____

Interview schedule (phase two)



***Assessment of the food security-related projects of the Student Rag Community Service
Potchefstroom Campus, North-West University***

OPENING

My name is Ms Pianca Swart and this is my translator _____. We are both from the North-West University and are doing research on the community projects, such as the SRCS in projects, in the Potchefstroom area. The purpose of this interview is to obtain information about the group's perceptions, attitudes and experience with the involvement of the SRCS at the project. We strongly value your input and your role in the community and we are hoping that our research will assist to improve your project and the SRCS to improve or create new projects.

Thank you for putting some time aside to have this focus group discussion with us. The questionnaire will take approximately 15-20 minutes. By signing the letter of consent you have agreed to voluntarily partake in this interview and gave us permission to audio-record the interview. You may be very relaxed; there is no right or wrong answer to any of the questions. Are there any questions before we continue with the interview questions?

BODY

Questions	Researchers comments
1. How do you feel about the students' involvement in the project?	

Questions	Researchers comments
2. Do you feel the project members have the sufficient skills and competences to participate in the SRCS programmes or activities?	
3. Have you heard of sustainability , and what does it mean to you?	
4. Which aspects do you think are important to make the project successful ?	

CLOSING

Draw a conclusion of the interview.

Can we perhaps contact you if there are any further questions?

Example of project transcriptions (phase two)



Assessment of the food security-related Student Rag Community Service Potchefstroom Campus, North-West University

Project A

Interview date: 07 August 2013

OPENING

The interview schedule opening and the consent form information was introduced and explained to the participant and a relaxed atmosphere was created before the interview commenced.

BODY AND CLOSING

Reflective notes and observations	Transcript
	<u>Researcher</u> Ok
Participant started to tell us about the project and is left to continue. The vegetable garden serves as a sustainable food supply.	<u>Participant</u> <i>I can see this project, when they started it last year, uh...it benefited us, in terms of sustaining the food supply to the NSNP kitchen, because um...if you can look at the pictures there...there of top...</i>
	<u>Researcher</u> Yes
	<u>Participant</u> <i>There were times where we harvested some of this... and we gave them to the NSNP kitchen and then...</i>
	<u>Researcher</u> <i>The NSNP, just...what does it stand for?</i>
	<u>Participant</u> <i>Is...nnn... N is national...national school nutrition programme.</i>
	<u>Researcher</u> <i>Oh ok, that's good.</i>
Insufficient income	<u>Participant</u> <i>Now the the the the money the government or department is giving for the school, does not always eh cover all the learners.</i>

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
	<u>Researcher</u> So you have more expenses than...
	<u>Participant</u> Ja, sometimes you have more expenses, because the the number fluctuate sometimes, yes.
Fluctuating number of school learners.	<u>Researcher</u> Ok, so fluctuate you mean by they don't give the same amount every month?
	<u>Participant</u> The number of the learners...eh...
	<u>Researcher</u> Oh oh the numbers of the scho...
	<u>Participant</u> ...there budget...yes. Sometimes the learners will be diss especially the farm schools nè?, but without garden alive, that helps us to sustain the expenditure...
	<u>Researcher</u> Ok
	<u>Participant</u> Yes, so there was no day when we would say the learners could not eat, because we short...food.
	<u>Researcher</u> Ok, this is good. Um...
	<u>Participant</u> So the evidence of that, is the photos there, because every time we we harvest...
	<u>Researcher</u> You can see your progress.
	<u>Participant</u> Yes, every time we harvest we take photos.
	<u>Researcher</u> It is good to take photos...
	<u>Participant</u> Yes
	<u>Researcher</u> Then you can see how you improve. Ok. Um...
	<u>Participant</u> Yes...
	<u>Researcher</u> I just want to tell you how the interview is gonna to be conducted...and my first page is just basically, exactly what I have explained to you in the consent form. So I just want to confirm that you...are a volunteer to participate...

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
Participant smiled and agreed	<u>Participant</u> Yes, I am...yes.
	<u>Participant</u> Yes
	<u>Researcher</u> Do you have any questions before I begin?
How will the research assist the project?	<u>Participant</u> Uh...maybe I can have one or two? As to...how much is this going to help us...or to better it?
	<u>Researcher</u> How much? Well uh... We would definitely like to...um as much as possible, if I can say that, but I will be giving feedback to the SRCS, and so that we can take this information and try and develop projects that are necessary and have an impact. So definitely from my side and from the SRCS we will try and have the greatest impact as possible. So we definitely...um want to take your concerns and um...your attitudes towards the SRCS in consideration.
	<u>Participant</u> Ok
	<u>Researcher</u> I am only gonna take through a few aspects. The first one...I would like to know...um. What is your true...how do you feel about the SRCS?...the students from the university coming here. You can be completely honest; this is a closed room...
The participant laughed.	<u>Participant</u> Yes...yes.
	<u>Researcher</u> Tell me how do you feel? How do you feel...just tell me...
Participant cleared his throat.	<u>Participant</u> I am going to be very much honest, yes...eh. As I was saying was saying to them, not knowing that you will come, I said 'eh...from the comments, the people are making...of the...
	<u>Researcher</u> When you say people, who are you referring to?
	<u>Participant</u> Everyone...everyone that visits the school. They say ah... this school.
	<u>Researcher</u> The SRCS?
	<u>Participant</u> Everyone, no...
	<u>Researcher</u> Oh, everyone...ok.
	<u>Participant</u> Everyone who visits the school say...Your school does not look like a farm school...no, it is so good, it is so clean...

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
	<u>Researcher</u> <i>I can agree with that.</i>
The school personnel have a different focus at the school (teaching and learning).	<u>Participant</u> <i>...and then I say to those people, 80% of that goodness, of that cleanliness, of that beauty everyone sees, it is the input of the students...yes, because the time that we have been given is for teaching and learning...only. So if you see that garden there, it was...they come two times per week and when they are here they make sure that they leave a mark...yes and when they are...when they have much...uh to do they take...they take on Saturdays...yes. Like there was a rubble of rubbish there, they came on a Saturday...</i>
	<u>Researcher</u> <i>And that is convenient for you...</i>
	<u>Participant</u> <i>Yes</i>
	<u>Researcher</u> <i>Ok</i>
Infrastructure	<u>Participant</u> <i>You see when I arrived the the school itself, the building, many bad colours...and then they talked to me, they said: Don't you think that we must change it as is?</i>
	<u>Researcher</u> <i>So they took your...your input in consideration as well?</i>
Bottom-up approach for need assessment	<u>Participant</u> <i>Exactly, yes. They will always ask...we are coming, can you give us list of things that you want us to do, yes and those are the things that that when done...someone say ok this school is in function, this school is well kept...you see.</i>
Appearance of the school is important	<u>Researcher</u> <i>And then um...when they do activities, such as what you have mentioned, um...do they involve the other um...personnel members? In the school? Are they involved then?</i>
No participations	<u>Participant</u> <i>Um...not necessary because when they come, mostly is...it will be we are in classes.</i>
	<u>Researcher</u> <i>Oh, ok.</i>
	<u>Participant</u> <i>Yes, and when, if they come during the time that the learners are...uh...finished, we would be busy with uh...other work, you know, like like preparing for the next time. So mostly, they they are not taking our time, yes. It is not like we are helping them, it is only on Saturdays, you will see me there with them, because that was a Saturday and then I will say to myself: I cannot just watch them do this, I must...um</i>
	<u>Researcher</u> <i>You want to part.</i>
The researcher was delighted to be part.	<u>Participant</u> <i>Yes, yes.</i>

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
	<u>Researcher</u> Ok, this good. Tell me, when they do activities, um...do you think that people that are involved, like you and some of the other people, when they are involved, do you think that they have sufficient skills to maintain...and um...do such activities?
Participant paused for a moment and replied. He referred to the skills of the students.	<u>Participant</u> Yes, I think they do have sufficient skills. They...is...I would say precise, what they are going to do.
	<u>Researcher</u> And when you look at the project, the school's personnel? Do you think they are competent and have all the skills...to take part in such activities?
	<u>Participant</u> Our school's personnel?
	<u>Researcher</u> Yes, like the teachers and...
	<u>Participant</u> I cannot say much about our school's personnel because most of the project we don't, we are not involved...in.
	<u>Researcher</u> Oh, ok.
Participant did not completely understand the question.	<u>Participant</u> You see, so I cannot say the job was snobby done or what, but their job, as prescribed, they had...you can't say this project they could not do, because they did not understand what they were doing. Anything that they have planned, they have completed, I have not had a complaint, yes...you see...that is why I say...I think they have done what they have planned, and It was done properly.
Good planning was done.	
	<u>Researcher</u> Ok, good.
The researcher agreed by saying ok while paying attention to what has been said.	<u>Participant</u> And as I said, we need to be honest, because if we are not the time, other photos shows time and the time will tell us, that this garden started last year...and the photos will also say: Why were they turning the soil, if the garden was there, these people, because this is them that are appearing in the photos, who were turning, and then if you see the garden now, comparing to the time they were turning, there is totally different view. There was nothing like the shade that time, when they turned that means they were starting...um.
	<u>Researcher</u> Yes, yes. Tell me you that...um they were mostly part of the photos and so. Do you think that the people involved in your school, like the teachers and so on, and the workers, do you think that they will have the skills to do the same kind of work or activities here at the project?
Time barrier	<u>Participant</u> Um...I cannot answer you...straight forward. Why I say so because the time, the question is the time.
	<u>Researcher</u> The time, ok?

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
	<u>Participant</u> Given, because like we have multi-grade classes and then we have got seven hours to teach, for instance three combined classes compared to the people in the town and the locations. Who are teaching one class, within the very same time given...you see. Very much, mostly I fear to ask the teachers to do extra things, I only ask teachers to accompany kids when we are running a tournaments, on Saturdays. Yes and then...but coming to watering, we do have a group, the SGB personnel.
	<u>Researcher</u> Just say again.
	<u>Participant</u> Watering..., because....
	<u>Researcher</u> What do you name the group?
	<u>Participant</u> SGB, School Government Body.
The researcher showed understanding.	<u>Researcher</u> Ok...ok
	<u>Participant</u> Because when the school was closed, as you see our garden is is is dis, it must be watered during...then the SGB comes in. They water the garden.
	<u>Researcher</u> So they look after it. Tell me, have you ever heard about the term sustainability?
	<u>Participant</u> Yes
	<u>Researcher</u> And tell me what does it mean to you?
Participant laughed and answered.	<u>Participant</u> <i>It is to keep a thing in its status. I think so.</i>
	<u>Researcher</u> <i>You are completely...correct, and tell me...um maybe you can just elaborate just a little bit more. What it important for you when you think, you said it is to keep it there...but what is...what is important for you when you think of that? What do you think?</i>
Participant demonstrated what should be done by moving his hands in a forward and backward motion.	<u>Participant</u> <i>Eh...I think e...to sustain a thing is is very important since a project is is is to benefit some people over a time, so sustaining it, is also a a an an an lesson to other people that you see, for it to remain like this...we need to do like this. You see... Like being part...so see this being the interact or integrate, the student from the university, they realise they must sustain what they have done here. As they taught our grade seven...for leadership...</i>
	<u>Researcher</u> Ok, the school children?

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
Participant and the researcher laughed.	<u>Participant</u> ...so that they can take care of the value they have added here. That is why you see...eh, even when you arrived, is is not much dirt around, because you see grade seven they were told to take care of this...yes. So they even went to a point where they gave them a...a batches, pendants...yes. So they are they are steeling being obsessed in ability, taking care of ownership. So you see, it is very important, as...so that it means if they go, but I, I need to be very careful about that, because I told them it is to their time to go...but if the go, we know...it was not just for data, it is for...a long time.
	<u>Researcher</u> That is a very good to me. Oh...yes, I am very excited to hear all those things...um...tell me... What do you think? What aspects do you need...do you think...um is necessary to sustain you project further?
Participant was avoiding elaborating on the current problems which they are experiencing. He showed impressions of shame. Management skills can be improved.	<u>Participant</u> Yes, I think it is very necessary, because we are going...we are still going to need food, we still going to...uh...to put this school where, where you can...where you say: A school, has got one, two, three and in this school, those things you can find. Like I was saying, our offices is not yet up to date, but...e...it is not that necessary to talk about it now, but is part of development.
	<u>Researcher</u> No, it is definitely part.
Participant is referring to the vegetable garden as an attraction point for visitors/future learners. One of the teachers came into the office to collect documents and left again. Sport support	<u>Participant</u> Because when you say the garden is fine, yes it is fine to, so that the learners may have food on daily basis, but then...when you see the visitors are attracted by this good and things..., but then they must be welcome in a better office like this one. You see, you sustain that, you develop and sustain it, you attract something. Then it means you need to develop something...yes and you develop it, somebody will come. See as you see, this photos we have been showing showing... Someone who would be seeing those photos, will say...ah...ah...ah... Someone who will be seeing this photos...will be coming and then as I say it is interaction of ??? People did not come to this school, I was actually bad, like those people when they came here to celebrate the 67..eh...minutes, someone was saying: I don't believe it, this school was not like this the other time and the soldiers have come with rakes and all they said: Why didn't you tell us that you school was clean and then we didn't have to bring these pieces? Then I told them again, it is not me, we got some students from the universities. As I say why we need this to carry on, because I don't think...eh..is is up to...is up, is up to where we can say...na, anyone can come and visit the school. Because a school needs to be visited you see, you still need challenges in terms of curricula and development of the learners...eh...we still need to say now the garden is is fine and then its sustained. We come to help us, maybe some people would come and train the learners, maybe for netball and soccer during this time. As a project, because this one they were focussing on the garden as is, now it is up to date, but coming to sports we still need someone that can come. Coming to the reading and writing, we still have learners who struggle, but we cannot because it is conjusted. The the three classes in one room you see, but if we can know that we are having someone there, whom you can even slot in after hours, then that whole school development will see is now moving, you see. Now the garden is sustained, the school is clean, yes...you see.
	<u>Researcher</u> No, that is wonderful. Mr...um
	<u>Participant</u> (Participant name)
Participants thanked the researcher during the closure. He gave permission that the researcher may contact him if there are any further questions.	<u>Researcher</u> I just want to...(participant name) yes. I just want to say that I am very very pleased to be here and I think that you are a very passionate person and that I can see that you school is going somewhere, and I really and truly hope that...um there will be coming more scholars and that your school will also...um increase in numbers and um... your school have very much potential and this is only the start. So I want to thank you for your time and you input and...um I would like to know: If there are any further questions, if I have a questions later on or so, if I can...um call you if you don't mind, if it is right with you. Ok. Do you have any questions further?

ADDENDUM A: DATA COLLECTION DOCUMENTS

Reflective notes and observations	Transcript (continues)
Understanding of sustainability	<u>Participant</u> <i>I don't have any questions, it is only that I I wish you...can help us where you can...yes and I then I I always say to people it is not for me, it is not for the teachers, is for the future citizens who will be come from...this one very school in particular...yes and then as I was indicating to other stakeholders, this school is this year forty years.</i>
	<u>Researcher</u> <i>Shoe, it is a long time.</i>
	<u>Participant</u> <i>And then I have been fortunate, that in its forty years...twenty seven years I know it, because I am twenty seven years. So as I said if God can help us, we need to celebrate that forty years, because we still have documents relevant so the first day when it was opened, where it was signed, and the first learner who have registered there, we still have that book.</i>
	<u>Researcher</u> <i>Oh...that is wonderful.</i>
	<u>Participant</u> <i>You see...yes. So I...it is my roots that...eh, during this year, before the school closes for the last term, that can be celebrated, and and with you guys having...mo I don't know what you saw in this school, but...</i>
	<u>Researcher</u> <i>It is potential, that I can tell you.</i>
	<u>Participant</u> <i>I am glass you persistent coming on and coming on honestly, it is not for me, it is for the learners.</i>
	<u>Researcher</u> <i>That is a very good attitude. Ok, thank you so much.</i>

End of example of project transcriptions

Letter of informed consent (phase three)



STRICTLY CONFIDENTIAL

TITLE OF THE STUDY

Assessment of the food security-related projects of the Student Rag Community Service Potchefstroom Campus, North-West University

AIM OF THE STUDY AND OBJECTIVE OF THE QUESTIONNAIRE

This questionnaire forms part of the final phase (phase three) of the study that is aimed to assess the Student Rag Community Service's (SRCS) projects related to food security which is part of a transdisciplinary research project conducted by the Subject Group of Consumer Sciences of the Department of Health Sciences at the North-West University (NWU). The questionnaire is aimed to assess the past term's (September 2012 until August 2013) project leaders' knowledge and understanding of project sustainability. Your input is highly valued as well the role you fulfilled in the community as project leader.

RESEARCH PROCEDURE

All data gathered during this study will be handled and stored confidentially and only the members of the study will have access to the data. Data published in dissertation or journals will not contain any information which may result in the identification of respondents. Therefore, your anonymity is assured. It will take approximately 15-20 minutes to complete the questionnaire and it consists of 15 questions. Although you may not derive any benefit personally from your participation in the study, knowledge will be gained by means of the study. Participation in this study is completely voluntary and you may withdraw from the study at any stage. You are kindly requested not to withdraw without careful consideration as this study will be used to improve planning, implementation and evaluation of current and future SRCS projects.

Ethical approval for this study was obtained from the Ethics Committee (NWU-00040-13-A1), the academic, student and the SRCS management (NPO002-000) of the North-West University gave permission to perform this study.

INFORMATION

If you required more information, please do not hesitate to contact Ms Pianca Swart (researcher) at 072 060 9426, Dr Hanli de Beer (supervisor) at 018 299 2483 or Mrs Christi Niesing (co-supervisor) at 018 299 2089.

DECLARATION OF CONSENT (PLEASE COMPLETE)

I, the undersigned _____ (name and surname) have read through and understand the information provided and hereby voluntarily agree to partake in this study.

Signature of the respondent _____ Signed at _____ on

the _____ day of _____ 2013.

Questionnaire (phase three)



**Assessment of the food security-related projects of the
Student Rag Community Service Potchefstroom Campus,
North-West University**

October 2013

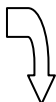
Administered by: Ms Pianca Swart
Supervisor: Dr Hanli de Beer
Co-supervisor: Mrs Christi Niesing

Respondent number

--	--

Were you a project leader of one of the SRCS projects in the last term of **September 2012 to August 2013?**

1	Yes
2	No



If you have answered **yes**, please make sure that you have completed the **consent form** and then continue with the questionnaire. If you have answered **no** please specify. Unfortunately you **do not qualify** to continue with this questionnaire.

.....

Questionnaire

This questionnaire forms part of the final phase (phase three) of the study that is aimed to assess the Student Rag Community Service's (SRCS) projects related to food security which is part of a transdisciplinary research project conducted by the Subject Group of Consumer Sciences of the Department of Health Sciences at the North-West University (NWU). The questionnaire is aimed to access the past term's (September 2012 until August 2013) SRCS project leaders' knowledge and understanding of project sustainability.

The questionnaire is completed anonymously and will take approximately 15-20 minutes to complete. By signing the consent form you agree to participate in this study and you also give consent that the data may be used for research purposes, with the caveat that it will be anonymous. Participation in this study is completely voluntary and you may withdraw from the study at any stage. However, you are kindly requested not to withdraw without careful consideration as this study will benefit the planning, implementation and evaluation of current and future SRCS projects. The questions are formulated from themes as identified from qualitative interviews held with the community project members (phase two) as well as from sustainability aspects as used in the literature. There are no right or wrong answers to the questions, thus your opinion is extremely important.

Ethical approval for this study was obtained from the Ethics Committee of the NWU (NWU-00040-13-A1), the academic, student and the SRCS management (NPO002-000) of the

ADDENDUM A: DATA COLLECTION DOCUMENTS

University gave permission to perform this study. Should you require more information, please do not hesitate to contact Dr Hanli de Beer (supervisor) at 018 299 2470 or Mrs Christi Niesing (co-supervisor) at 018 299 2089.

Please answer ALL the questions in this questionnaire by marking the block of your choice with a X.

Throughout the questionnaire **project leader** refers to the student leader responsible for the community projects, whereas **community project members** refers to the personnel, including the contact person, of the project which may include caretakers, teachers, management and volunteers.

Section A: Participation, skills and competences

1) How often do the **community project members participate** in the SRCS activities?

1	Always
2	Often
3	Sometimes
4	Never

2) How would you rate the **skills and competences** of the **community project members** to **participate** in the SRCS activities?

1	Excellent
2	Good
3	Moderate
4	Poor

- 3) How often would you say do **community project members** experience the following **barriers to participate** in the **SRCS activities**?

Barriers	Always	Often	Seldom	Never
a) Time available to participate in the SRCS activities within the school programme	1	2	3	4
b) Time available to participate in SRCS activities outside the school programme	1	2	3	4
c) Personal interest and responsibilities	1	2	3	4

- 4) How often would you say do you as **project leader** experiences the following **barriers** to **plan, implement** and **evaluate** projects?

Barriers	Always	Often	Seldom	Never
a) Time available to plan for the programmes and activities	1	2	3	4
b) Time available to implement programmes and activities	1	2	3	4
c) Time available to evaluate or reflect (process reports) on activities	1	2	3	4
d) Lack of skills and competences	1	2	3	4
e) Personal interest and responsibilities	1	2	3	4

- 5) Are the **community project members' responsibilities** towards the programmes and activities **discussed** and **clarified** to them?

1	Yes
2	No



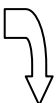
Please provide a reason for your answer:

.....

.....

- 6) Would you say the **community project members** have the required **skills and competences** to manage their **responsibilities** sufficiently?

1	Yes
2	No



Please provide a reason for your answer:

.....

.....

- 7) Does the project receive any **support, other than the SRCS**, from the **community**?

1	Yes
2	No



Please specify:

.....

.....

- 8) Does **skills transfer** take place from the **SRCS** to the **community project members**?

1	Yes
2	No



Please provide a reason for your answer:

.....

.....

Section B: Sustainability and sustainability indicators

- 9) Indicate what **project sustainability** means to you by rating the **aspects** in the table below.

Aspects	Completely disagree	Disagree	Somewhat agree	Completely agree
a) Exposure/awareness (public/community/media)	1	2	3	4
b) Ownership and participation (taking responsibility and being involved)	1	2	3	4
c) Capacity building (individual and collective strengths and assets within a community)	1	2	3	4
d) Sufficient income (to make payments and operate project)	1	2	3	4
e) Empowerment (improving skills to independent initiating actions)	1	2	3	4
f) Production of own food sources (vegetable gardens, livestock, etc.)	1	2	3	4

- 10) How would you rate the **sustainability** of the following with regards to the **project** during **last SRCS term**?

In terms of community development, **sustainability** refers to the **continuation of the project** and the **benefits** experienced/gained by the community and the continuation of benefits **after** the **completion** of the project and/or the **departure** of the **developing organisation**.

Aspects	Completely Unsustainable	Unsustainable	Somewhat sustainable	Sustainable
a) Programmes	1	2	3	4
b) Activities	1	2	3	4
c) Overall project	1	2	3	4

11) How important do you consider the following **sustainability indicators**?

Sustainability indicators are used to measure the **progress** that the **projects** (school, day care centre, shelter, or old-aged home, etc.) are making **towards sustainability**.

Statements	Unimportant	Less important	Important	Very important
a) Saving opportunities for the project	1	2	3	4
b) Fundraising by the community project members	1	2	3	4
c) Clear leadership roles within the project (between the community members)	1	2	3	4
d) Support for the project provided by the SRCS	1	2	3	4
e) Support for the project provided by other organisations (child care, church outreaches, social services, etc.)	1	2	3	4
f) The receipt of food hand-outs	1	2	3	4
g) Basic operational resources (needed for lessons, maintenance, assets, etc.)	1	2	3	4
h) Proper infrastructure (kitchen, classrooms, toilets, etc.)	1	2	3	4
i) Skills assessment of project members	1	2	3	4
j) Education opportunities for project community project members	1	2	3	4
k) Training opportunities for community project members	1	2	3	4
l) Improvement of business skills of the project members	1	2	3	4
m) Creative abilities of project members	1	2	3	4
n) Provision of religious support	1	2	3	4
o) Provision of cultural support	1	2	3	4
p) Provision of academic support	1	2	3	4
q) Provision of extracurricular activities (netball, soccer, rugby, etc.)	1	2	3	4

11) Continues

Statements		Unimportant	Less important	Important	Very important
r)	Integrating traditional knowledge when developing activities (e.g. food preparation)	1	2	3	4
s)	Group approaches when planning activities and programmes	1	2	3	4
t)	Group approaches when implementing activities and programmes	1	2	3	4
u)	Group approaches when evaluating activities and programmes	1	2	3	4

12) Will the newly appointed project leader **continue** with the **current programmes**?
☐ 1 Yes

☐ 2 No

Please provide a reason for your answer:

.....

.....

13) Would you say that one **term** is sufficient to **meet** all the predetermined **aims and objectives**?
☐ 1 Yes

☐ 2 No

Please provide a reason for your answer:

.....

.....

14) Whose **responsibility** would you say is the **sustainability** of a community project?

- ☐ 1 SRCS project leader and committee
- ☐ 2 The community project members
- ☐ 3 Both the SRCS project leader and committee, and the community project members

Please provide a reason for your answer:

.....

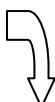
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Section C: Food security-related programmes and activities

Food related programmes and activities mostly include: personal and food **hygiene**; **consumer** and **nutrition education**; development of **vegetable gardens**; assisting with **soup kitchens** or **feeding schemes**; and improving the **infrastructure** to support such activities.

15) Do the project's programmes or activities address any **food related activities**?

☐ 1 Yes

☐ 2 No 

Please provide a reason for your answer:

.....

.....

ADDENDUM A: DATA COLLECTION DOCUMENTS

- 16) How would you rate the **skills** and **competences** to implement food related activities of the following individual(s)?

Individual(s)	Poor	Moderate	Good	Excellent
a) Project leader (yourself)	1	2	3	4
b) SRCS project committee (residence/NWU Potchefstroom)	1	2	3	4
c) Community project members (contact person and members)	1	2	3	4
d) Project target group (children/youth/adults/old-aged people)	1	2	3	4

THANK YOU FOR YOUR PARTICIPATION

ADDENDUM B: ADDITIONAL TABLES

Table B1 Summary of activities associated with food security-related projects (phase one) (n=21)

Project	Type of project	Project target group (count)	Food security-related themes grouped according to SRCS activities													Count	
			Food en nutrition					Hygiene				Infrastructure/ Appliances				Food security-related activities	
			Food preparation skills	Menu adjustments/planning	Nutrition education	Feeding scheme	Food hand-outs	Food hygiene: safe use of water	Food hygiene: food handling procedures	Personal hygiene: hand washing and cleanliness	Hygiene hand-outs (basic necessities)	Cutlery and crockery	Furniture (food preparation/storage/dining)	Equipment (detached and fixtures)	Improvement /development of buildings		Improvement/development of vegetable gardens
1(A)	ECD ¹ , Day Care Centre	Children 6 years or younger (n=110)		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		11
2	CYD ² , Primary School	School children (U ³)					✓			✓	✓			✓			4
3	OP ⁴ , Contact Project	School children (U ³)		✓	✓	✓	✓			✓	✓			✓		✓	8
4	VA ⁵ , Homeless and Retirement Village	Children 6 years or younger, 35-60 years, and older than 60 years (n=65)					✓				✓			✓	✓	✓	5
5	CYD ² , Intermediate School	School children (n=444)					✓			✓	✓				✓	✓	5
6	EDC ¹ , After-care Centre	School children (n=U ³)					✓		✓	✓		✓	✓	✓	✓		7

¹ Early Childhood Development; ² Child and Youth Development; ³ Unidentified; ⁴ Outreach Programme; ⁵ Vulnerable Adults

Table B1 Summary of activities associated with food security-related projects (phase one) (n=21) (continues)

Project	Type of project	Project target group (count)	Food security-related themes grouped according to SRCS activities													Count	
			Food en nutrition					Hygiene				Infrastructure/ Appliances				Food security-related activities	
			Food preparation skills	Menu adjustments/planning	Nutrition education	Feeding scheme	Food hand-outs	Food hygiene: safe use of water	Food hygiene: food handling procedures	Personal hygiene: hand washing and cleanliness	Hygiene hand-outs (basic necessities)	Cutlery and crockery	Furniture (food preparation/storage/dining)	Equipment (detached and fixtures)	Improvement /development of buildings		Improvement/development of vegetable gardens
7 (B)	CYD ² , Primary School	School children (n=960)				✓	✓		✓	✓		✓			✓		6
8 (C)	EDC ¹ , Pre-school	Children 6 years or younger (n=75-100)		✓		✓	✓			✓				✓	✓	✓	7
9	EDC ¹ , Pre-school	Children 6 years or younger (n=25)	✓	✓	✓		✓			✓	✓			✓	✓	✓	9
10	EDC ¹ , Pre-school	Children 6 years or younger (n=28)		✓			✓			✓	✓	✓	✓	✓	✓	✓	9
11	EDC ¹ , Pre-school	Children 6 years or younger (n=150)		✓			✓		✓		✓		✓		✓	✓	7
12	EDC ¹ , Pre-school ; and CYD ² , Primary School	Children 6 years or younger; and School children (n=52)		✓	✓		✓			✓		✓	✓	✓	✓	✓	9
13	CYD ² , Intermediate School	School children (n=402)			✓					✓			✓		✓	✓	5
14	CYD ² , Primary School	School children (n=100)					✓		✓						✓	✓	4

¹ Early Childhood Development; ² Child and Youth Development

Table B1 Summary of activities associated with food security-related projects (phase one) (n=21) (continues)

Project	Type of project	Project target group (count)	Food security-related themes grouped according to SRCS activities														Count
			Food en nutrition					Hygiene				Infrastructure/ Appliances					Food security-related activities
			Food preparation skills	Menu adjustments/planning	Nutrition education	Feeding scheme	Food hand-outs	Food hygiene: safe use of water	Food hygiene: food handling procedures	Personal hygiene: hand washing and cleanliness	Hygiene hand-outs (basic necessities)	Cutlery and crockery	Furniture (food preparation/storage/dining)	Equipment (detached and fixtures)	Improvement /development of buildings	Improvement/development of vegetable gardens	
15	CYD ² , Primary School, Contact Project	School children (n=50)		✓	✓	✓		✓	✓	✓	✓						7
16	OP ⁴ , Shelter	School children (n=50)								✓	✓						2
17 (D)	CYD ² , Primary School	School children (n=100-105)				✓	✓			✓	✓			✓	✓	✓	7
18 (E)	CYD ² & VA ⁵ , Day Care Centre	Disabled individuals between 9 to 39 years old) (n=1-25)				✓	✓			✓			✓	✓	✓	✓	7
19	ECD ¹ , Pre-school	Children six years and under (n=75-100)		✓			✓		✓	✓	✓	✓		✓			7
20	CYD ² , Primary School	School Children (U ³)													✓	✓	2
21	VA ⁵ , Disabled people	U ³								✓	✓					✓	3

¹ Early Childhood Development; ² Child and Youth Development; ³ Unidentified; ⁴ Outreach Programme; ⁵ Vulnerable Adults

Table B2 Vegetable gardens' sustainability assessment as a food supply

Project A	
Participant's responses	<i>"...it benefited us, in terms of sustaining the food supply to the NSNP* kitchen..." "There was a time where we harvested some of this...and we gave it to the NSNP* kitchen..."</i> <i>"...there was no day when we would say learners could not eat..."</i> <i>"...80% of that goodness, of the cleanliness, of that beauty everyone sees, it is the input of the students..."</i> <i>"...you see the garden there, it was...they come two times per week and when they are here they make sure that they leave a mark..."</i> <i>"...but coming to watering, we do have a group, the SGB personnel." "...when the school was closed, as you see the garden... then the SGB comes in. They water the garden."</i> <i>"...the garden is fine and sustained."</i> <i>"...the learners may have food on a daily basis, but then...when you see the visitors are attracted by this good and things..."</i>
Observations made	The vegetable garden was well maintained and free of rubbish.
Project C	
Participants' responses	<i>"...we do the garden..., usually twice a month." "Not daily base."</i> <i>"...we don't have enough material for the garden to do something..."</i> <i>"...we need transport and food..."</i> <i>"...it is a meal, as soft porridge, pap, chicken, mabela, you just mix those proteins..."</i> <i>"Vegetables they are becoming expensive lately, red meat also, because you can't only feed them white chicken meat. To mix that food is too expensive."</i> <i>"...We buy food, sometimes on the fifteenth we have nothing."</i> <i>"...buying food and things, if they are not there it is going to be very difficult. Now I should also take my money to go and buy something, she must also take out money to buy the children something..."</i> <i>"We can get the seeds, like spinach, cabbage..."</i>
Observations made	The vegetable garden was at a different location, thus not easily assessable to serve as a sustainable food supply.

Table B2 Vegetable gardens' sustainability assessment as a food supply (continues)

Project D	
Participants' responses	<i>"...sometimes we give some water..."</i>
Sustainability (maintenance)	
Variety of vegetables	
Observations made	The project had a well maintained garden with a variety of vegetables.

* NSNP: National School Nutrition Programme; SGB: School Government Body