



UNIVERSITY OF KWAZULU NATAL

**The impact of agricultural skills training programmes delivered
by Shukela Training Centre (Pty) Ltd**

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**A dissertation in fulfilment of the requirements for the degree of Master of Business
Administration**

Graduate School of Business & Leadership College of Law and Management Studies

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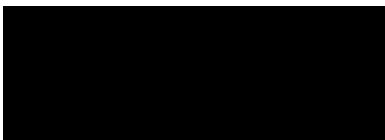
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DECLARATION

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LIST OF ACRONYMS

DALRRD	Department of Agriculture Land Reform and Rural Development
FPSU	Farmer Production Support Unit
GDA	Grower Development Account
GSC	Gledhow Sugar Company
HPL	Health Promotions Levy
KZN	KwaZulu-Natal
NARYSEC	National Rural Youth Service Corps
NSDS	National Skills Development Strategy
NSP	National Skills Plan
QCTO	Qualification Council Trades Occupations
RV	Recoverable Value
SA	South Africa
SACGA	South African Cane Growers Association
SACU	Southern African Customs Union
SAFDA	South African Farmers Development Association
SASA	South African Sugar Association
SASMA	South African Sugar Millers Association
SASRI	South African Sugar Research Institute
SETA	Sector Education and Training Authorities
SIET&D	Sugar Industry Education Training and Development Programme
SIFTE	Sugar Industry Trust Fund for Education
SMRI	Sugar Milling Research Institute

SPSS Statistically Package of the Social Science

STC Shukela Training Centre (Pty) Ltd

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Abstract

This study is necessary to gain perspective on the impact of training offered by Shukela Training Centre (Pty) Ltd to its clients by analysing its credibility, effectiveness, and relevancy to the sugar industry members. Through all the factors, mentioned above, the quality, impact and relevance of training will be improved. The South African Sugar Industry stakeholders showed scepticism during the Development Committee Meeting held in 2022 with regards to supporting the approval of the Grant Development Account funds. The Grant Development Funds are funds held for transformation of small-scale and land reform growers' association under the South African Sugar Association. The reason behind the fear is the belief that the funds are not utilised constructively with regards to the credibility of the meaning and content of the training. Based on the concerns from the committee there has been a request for a study to be pursued. The training must be driven more by the client's requirements to be more relevant. The quality, content, and relevance of the training will be focused on. This would result in the department supporting its financial expenses and making a profit in a long run.

The important function of doing this study is to answer objectives such as establishing whether the respondents have attended the Agricultural Training at Shukela Training Centre (Pty) Ltd, to determine whether the training met the learners' expectations, to explore ways in which the agricultural training offerings can be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC) and to find an indication whether the credit-bearing courses are preferable to learners versus the current skills courses.

The population for this study was done for all the sugarcane growers in the database, which is inclusive of the commercial, land reform inclusive of restitution projects namely trusts and CPAs, and small-scale growers. There would also be sugarcane stakeholders which are namely the millers such as Tongaat Hulett Sugar, Umfolozi Sugar Mill, Gledhow Sugar Company, RCL Sugar, UCL, Illovo Sugar and grower associations such as South African Cane Growers association and South African Farmers Development Association and the Department of Agriculture Land Reform and Rural Development.

Microsoft forms were used to create the survey in order to be able to collect the customers or growers' feedback. A total of twenty-eight surveys were collected from grower participants along with sugar industry stakeholders. Descriptive statistics such as frequency and percentages was utilized to analyze all the data retrieved from the study. The coded results were first imputed

on an Excel spreadsheet and then further transferred to the Statistical Packages for Social Sciences (SPSS) for analysis and all results were presented with the aid of frequency and percentage distribution tables.

It was recommended that STC must provide innovative training based on and the -world agricultural situations. The course must be customized to meet the needs of the client and must be delivered by the client's premises or by the training centre. The programmes must be designed with subject matter expertise. The training must include gamification and innovative techniques which must be applied to all the training uptakes being part of monitoring and the evaluation process. STC must also include community development as part of its portfolio so that the community can be assisted to start a small business and look for employment opportunities. This will assist in promoting self-sufficiency creating a future that is sustainable for the community. The study shows that the training programmes have a positive impact on the sugarcane grower performance and livelihood. However, it is suggested that a further cost benefit analysis can be done to further reveal the magnitude of the impact of these training skills training programmes offered by STC.

Key Words: Agricultural training, Quality, Shukela Training Centre (Pty) Ltd, Impact, Skills

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Chapter One: Overview of the study

1.0. Introduction

The survival of any training institute in this extremely competitive economic environment relies on the centres' training to be innovative, current, relevant, fully accredited, have high-quality training, and be highly beneficial to its clients. According to Du Plessis et al. (2019) training is the planned knowledge acquisition about skills and abilities to conduct specific tasks in a vocational setting". General training assists in enhancing the skills, knowledge, and competence of an employee to enhance the employee to perform more efficiently to increase production. Training in general has an important mission in the effectiveness of an organization (Du Plessis et al., 2019).

This study is necessary to gain perspective on the credibility of training offered by Shukela Training Centre (Pty) Ltd to its clients by analysing its impact, effectiveness, and relevancy to the sugar industry members. Through all the factors mentioned above, the quality, impact, and relevance of training will be improved. The South African Sugarcane Industry stakeholders indicated that during the Development Committee Meeting held on the 15th of June 2020 that they were sceptical with regards to supporting the approval of the Grant Development Account funds which are funds held for the transformation of small-scale and land reform growers under the South African Sugar Association. The reason behind the fear is the belief that the funds are not being utilized constructively concerning the credibility of the meaning and content of the training. They have further indicated that they will be applying their minds with the submission of a radical proposal on dealing with the funds going forward (Mkhize, 2020).

The South African Sugar Association has responded to these credibility concerns by mentioning that a survey will be done to understand better the impact of the Shukela Training Centre (Pty) Ltd training offerings in their entirety and explore certain methods in which the training offered can be improved (De Ridder et al., 2018).

Previous studies conducted by Manstrat and others concerning the Sugar Industry indicated that it was based on the land reform training needs assessment for a capacity-building program but did not focus on small-scale and commercial growers in the industry. According to De Ridder et al., 2018) report, the following was recommended "It is recommended that a holistic approach

to training is adopted. This implies that farmers need to develop a full range of skills that will empower and capacitate them to farm "independently" (De Ridder et al., 2018).

Despite more interest in agricultural training for sugarcane farmers, it is of surprise that little research has been conducted on Shukela Training Centre (Pty) Ltd as the industry's training institute, especially from the perspective of the sugarcane associations, millers, and the growers themselves. Agricultural skills training research evaluation is scarce, and few studies have focused on the effectiveness and relevancy of the STC Agricultural department skills training in depth in pursuit to improve this training.

The important function of this study is to answer sub-questions such as how much impact the training at Shukela Training Centre (Pty) Ltd has, what the benefits are of training and development at Shukela Training Centre (Pty) Ltd, and what recommendations can be made to the Shukela Training Centre (Pty) Ltd Training to improve its training for STC to remain highly reputable and improve their services.

1.1. Background of the study

Shukela Training Centre is commonly known in the sugar industry as STC and is a training institute that is owned by the South African Sugar Association with more than forty-five years in the training business of engineering and agriculture. STC has several quality and experienced staff and has the newest training technology in place due to SASA's financial support. STC is not fully profit driven, but quality training driven if the training company breaks even. The client base of STC is large with more than 4000 clients. (Mathe, 2021)

STC is a fully accredited training centre owning approval with AgriSETA (PAET 5837) and other Sector Education and Training Authority (SETA's). The Quality Council for Trades and Occupations (QCTO) has fully accredited STC as a skills training institute and Trade test centre. The STC recruits the best well experienced employees who will manage the departments and develop curriculum. The managers are very well known for organising the World Skills Competition South Africa and developing brand new occupational qualifications and trade tests for engineering. (Mathe, 2021).

STC enrolls learners in two respective departments namely Engineering and Agriculture both of which offer learnerships and apprenticeships type of learning systems. STC training trains more than 3000 learners under the Agricultural Department and more than 2500 in the engineering trades and conducts trade tests for more than 600 learners. STC proudly employs 41 employees

contributing to the well reputable training centre with 26 professional and qualified educators. These educators come with great expertise and knowledge for learners enrolling at STC (Mathe, 2021).

Traits that truly make STC unique is on-site accommodation in both Mount Edgecombe and Mtunzini Campuses. All this makes STC especially accessible to all learners in Durban and Mtunzini areas. (Mathe, 2021). "Training today's People for Southern Africa's Tomorrow" is STC's slogan as the centre breathes life into the potential for success of all its learners (Mathe, 2021).

The following is the organizational structure of the Shukela Training Centre.

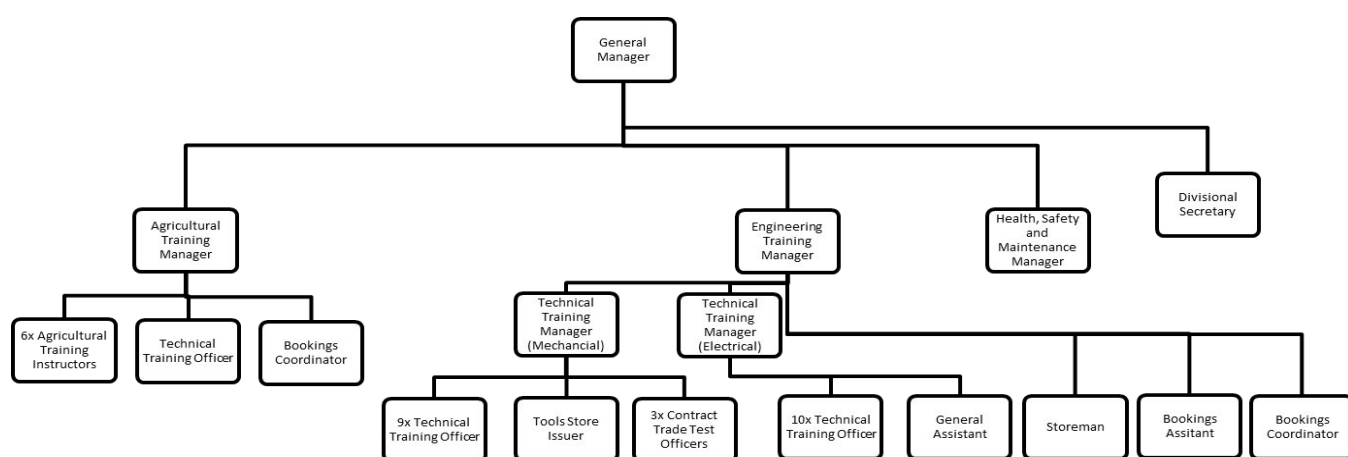


Figure 1.1: The Shukela Training Centre (Pty) Ltd Organogram

The STC Agricultural Training Department has previously trained for the DALRRD, 75 farmers in Tractor Driving, Maintenance, and Calibration of Implements in 8 districts of Zululand, iLembe, eThekweni, uMgungundlovu, uThukela, King Cetshwayo, Ugu and Harry Gwala in the province KwaZulu Natal. In another Project, the STC Agricultural Training Department has trained fifty (50) NARYSEC learners coming from various districts across KZN on the National Plant Production Learnership NQF Level 4. Most recently this department has trained 40 employees from Umgeni Water on accredited First Aid Level 1 (Mathe, 2021).

1.2. Statement of the problem

The STC Agricultural Training Department has been in operation for over 25 years and has primarily provided on-site agricultural skills training to growers and farm workers. Some examples of course offerings are Cane Husbandry; Cane Cutting; Knapsack Operator; Basic

Workshop Skills and Tractor Care. All this training is done at approximately 50% of the cost, with the other 50% being paid for by the SASA Levy. The target group for this training has been farm workers, which has resulted in increased efficiencies on farms (Ndiweni, 2018).

According to Fatchamp, (2020) training increases the adoption of the recommended practices and improves performance, but not all the trainees will be able to adopt them. The study aims to investigate the impact of the agricultural training offered by Shukela Training Centre (Pty) Ltd. Based on the concerns from the committee there has been a request for a study to be pursued on obtaining a clearer understanding of the strengths, weaknesses along with the relevance of the STC's training and then further explore ways in which the agricultural training could be improved. The training must be driven more by the client's requirements to be more relevant. The quality, content, and relevance of the training will be focused on. This would result in the department supporting its financial expenses and making a profit in a long run (Mkhize, 2020).

The Training Evaluation Objectives are the following, to gain practical insight to re-design, re-develop and deliver more effective future training programs, to conform to Grant Development Account (GDA) policy guidelines and the sugar industry training and development pathway to establish whether the Sugar Industry Education Training & Development pathway is still relevant and required, to gauge the extent of transfer of learning i.e., the extent to which trainees / growers apply learnings to their job, to determine if the training program maps the needs of the trainees / growers, which is an important objective to establish the requirement for a qualification versus knowledge building. (Madhanpall, 2018).

During the years, the Agricultural Training Department has shown to be making a deficit for a significant number of years hence relying on the Engineering Department to cover its losses since it does not break-even. This has posed a great concern to the STC Committee and STC Management, hence questioning the departments requirement to continue offering training. Thus, a well-informed turnaround strategy is vital for the continuation and the sustainability of the department.

The research aims at ensuring that the agricultural training department is more self-sustainable by offering more diversified relevant courses to farmers of other agricultural commodities, to departments and persons with interest for agriculture rather than only sugarcane farmers. It will also focus on increasing occupation courses within the agricultural sphere, more business-related courses and increment in Rural Enterprise development.

The challenges faced in the current training system, include the lack of stakeholder co-ordination (Stakeholders Training Forum to be created) There is a wide range of role players within the sugar industry such as CANEGROWERS, SAFDA, SASA, AgriSETA, the Department of Agriculture and Rural Development and the sugarcane growers who are commercial, land reform and small-scale who must form all form a co-ordinating body that needs to regularly review the performance of STC and give a co-ordinated direction in terms of agricultural trainings offered at STC which aims at reviewing the optimal impact on the performance of the agricultural training institute. The committee's mandate will also ensure that they assist with MOU's and agreements on training to be provided to their growers and with possible funding. Poor and inconsistent quality control (Diversification) The curriculum that is currently in place is being revamped to better suit the requirements of the sugar industry clients. The new curriculum is aimed at standardising the level of education offered by the instructors and give sequence to their training in terms of days and the information shared with the learners.

Ineffective and non-responsive education and training systems – the sugar industry client's requirements has gradually evolved overtime, hence shifting the their focus towards diversification of crop production, also there has not been an appropriate response in formal education and training curriculum content to address the required improvement in areas such as marketing, management, value-adding and other practical skills. Positioning agriculture as a market-directed business could be profitable as opposed to being taught only as a production enterprise (Madlala,2021).

Poor access to STC by emerging farmers and new entrants into the agriculture sector - Previously disadvantaged communities, and in particular women and the disabled continue to have poor access to quality training. This is a result of various barriers, including affordability, admission requirements, physical distance from training centres, literacy and numeracy, language of instruction and scant resources available to those charged with the responsibility of providing training to these communities.

Pricing of the courses and payment structure – This training is done at approximately 50% of cost, with the other 50% being paid for from the SASA Levy. This has resulted in contributing to the lower income achieved on the Agricultural Department since costs of providing the training far exceed the income of the training itself often leading to a loss or deficit at the end of the financial year of 2 million to 3 million rands. The payment for the course is currently based on the number of learners who have attended the course as opposed to the price of offering

the course itself that will cover all the costs related to the training regardless of the attendance or participation of the learners (Madlala, 2021)

High training costs – A large percentage of the training is offered offsite rather than onsite which proves to be very expensive, offering a higher percentage of the training onsite will improve income diminishing travelling costs. Greater emphasis hence needs to be shifted rather towards learnerships at STC and bidding for tenders under The Department of Agricultural and Rural Development.

Other competitors – Although the Shukela Training Centre has been practically a brand name for the past 25 years across the sugar industry other agricultural training institutes have risen who show to be very strong contenders and pose a huge threat to the Shukela Training Centre. Marketing of the agricultural department – it is becoming more vital that the Agricultural Department creates a budget to market itself well-known throughout the sugar belt since its competitors' have been poaching some of the STC's long standing clients by being more proactive and aggressive with their advertising strategies. STC need not take for granted that it's well known throughout the industry but however must treat themselves as a new training company. Clients often as well require re-assurance that the training company is still the company that they once knew and relationships have to be well maintained externally by especially the management of the department by making regular visits to the clients, once a week. The instructors themselves also must hand out the department's price list to the learners every time they train the client. Clients should always be left with a reminder of STC after each and every training in the form of a calendar and year planner. There is a shortage of critical skills - Agriculture draws on a wide range of scientific and practical skills and knowledge. These can be categorised in to five broad areas, Shukela Training Centre, however, can only focus on the aspects which are mainly Agricultural Production, Economics and Development (Madlala, 2021).

1.3. Focus for the Study

This focus of the study was based on the evaluation of the impact and relevance of the training offered by Shukela Training Centre (Pty) Ltd, which is a company consisting of two training departments namely Agriculture and Engineering. The focus of this study, however, was on the Agricultural department only. The sugarcane farmworkers, growers, grower associations, and millers were considered respondents for this study. The researcher understood that the samples

from the sugarcane growers as mentioned previously, would be a true representation and the findings could be utilized to generalize the views across the Sugar Industry (Mkhize, 2020)

1.4. Research Aim

The primary aim of the evaluation was to improve STC agronomic and non-agronomic training agricultural training, by discovering which training programs are successful in achieving their stated objectives. The intention is for industry members (SACGA, SAFDA, SASMA), as clients was to provide a better understanding of SASA, and STC by determining whether the training and development objectives are being met, determining the effectiveness of the different components of the training and development program (e.g., contents, training support, facilities and environment (location), program schedule, presentation style, the instructor, etc.) to determine whether the training and development program assuming this refers to each training course justifies the cost i.e. need to establish current actual cost vs fee charged, to decide who (number and type of potential participants) should participate in the future program. Lastly to assess which participants gained the most or the least from specific programs then agree and ask why. To focus on the Agricultural Training Department clients' needs and appropriately position the department towards addressing those needs. Keeping up to date with the latest developments within the sugar industry specifically and the agricultural sector in general and identifying and exploiting new opportunities for the department.

The views of industry Associations South African Canegrowers Association, the South African Farmers Development Association and South African Millers Association, individual milling companies, sugarcane growers, and learners remain critical to the South African Sugar Association's intention of providing relevant training to the benefit of all stakeholders.

The objectives were met through a survey to be conducted across the sugar industry (KZN). Survey findings – with regards to the capacity of STC trainers (re-training, recruitment of new instructors), quality of training materials used, duration of training per course, and training equipment (sufficient or needs to be supplemented). Interviews and group discussions may also be conducted.

Other objectives were done through Sugar Industry Understanding the South African Sugarcane Value Chain Master Plan to 2030, Training needs emanating from the Master Plan for the Agricultural Sector Read and understanding the department of Agriculture Land Reform and

Rural Development strategic documents and plans Opportunities for the STC emanating from these plans and strategic documents.

1.5. Questions and objectives of the study

1.5.1. Key Research Questions

The important aim of performing this study besides answering the main question as written in the problem statement was to answer the following sub-questions:

- Is training at STC effective or not?
- Do learners prefer credit-bearing courses or not?
- What are the ways or methods recommended to improve agricultural training at Shukela Training Centre (Pty) Ltd

1.5.2. These are the objectives:

To establish whether the learners have attended the Agricultural Training at Shukela Training Centre (Pty) Ltd

- To determine whether the training meets the learners' expectations
- To explore ways in which the agricultural training offerings can be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC)
- To find an indication of whether the credit-bearing courses are preferable to learners versus the current skills courses
- To explore ways in which the agricultural training offerings can be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC)

1.6. Significance of the study

The minutes of the Sugar Industry, Development Working Group Meeting held on the 15th of June 2020, describe the following as a problem concerning training offered by the industry's training provider (Mkhize, 2020).

"South African Farmers Development Association (SAFDA) cited that they support the approval of the Grant Development Account (GDA) with heavy hearts, as they felt that the funds are being utilized as an opportunity for training that did not appear credible regarding meaning and content. South African Farmers Development Association advised that going

forward they would be applying their minds and submitting a radical proposal on how to deal with the Grant Development Account funds going forward." (Mkhize, 2020).

South African Sugar Association shared that based on those concerns, they would be surveying to get a better understanding of the relevance of the SASA training offerings in their entirety and explore ways in which the training offerings can be improved (Mkhize, 2020).

1.7. Scope and limitations of the study

The problem statement was focusing on the impact that STC Agricultural training has on the learners and farms. The study focused on the South African Sugar Industry sugarcane growers, millers, grower associations, and other stakeholders such as the Department of Agriculture Land Reform and Rural Development. The geographical area that was covered was:

- KwaZulu Natal Region
- Sugarcane growers – commercial, land reform, and small-scale growers
- Sugarcane millers – Tongaat Hulett Sugar, Illovo, Umfolozi Sugar Company, Gledhow Sugar Company, and RCL Foods

Several limitations were encountered during this study:

- The Ethical Clearance took an exceptionally lengthy period to be resolved.
- The time frame for the return of the questionnaires was lengthy

1.8. Structure of thesis

1.8.1. Chapter one – Introduction

The first chapter shows the direction and the orientation of that study. The first chapter will be focusing on the following the introduction, background of the study, statement of the problem, the purpose of the study, research questions, significance of the study, definition of terms, assumptions, limitations, delineation of the study and the conclusion.

1.8.2. Chapter two – Literature Review

The second chapter will provide a literature review of training offerings in the Shukela Training Centre (Pty) Ltd Agricultural Department. The second chapter will be focusing on the following

the overview of the sugar industry, agricultural training challenges, training in agriculture and measuring the impact of training.

1.8.3. Chapter three – Research Methodology

The chapter will cover the methods of the research. The third chapter will entail the following the introduction, the research design, the research questions and hypotheses, the setting and sample, data collection, data analysis, and the conclusion.

1.8.4. Chapter four – Presentation of Research Findings

Here the findings and the analysis of the findings are discussed and compared with the literature in the study. The fourth chapter will have the following subheadings, the introduction, the findings (organized by Research Questions or Hypotheses), and the conclusion.

1.8.5. Chapter five – Recommendations

The last chapter will summarize the dissertation and shows its benefits as well. The fifth chapter will encompass the following subheadings, the introduction, the summary of findings, the conclusions (organized by Research Questions or Hypotheses), the discussion, the suggestions for future research, and the conclusion. In the end, finally, future research opportunities may be presented based on the study.

1.9. Conclusion

The chapter has already set the scene of the study. The focus of the study is the investigating the impact and the relevance of training skills programs on the business success of Shukela Training Centre (Pty) Ltd in KZN and then further explore ways in which agricultural training could be improved. The research methodology that will be utilized in this study is quantitative methods. There will be questionnaires sent to growers, STC learners, and sugar industry stakeholders. There will be five chapters included in the thesis. The next chapter will be focusing on the literature review of training offerings in the Shukela Training Centre (Pty) Ltd Agricultural Department.

Chapter 2: Literature Review

2.1. The overview of the Sugar Industry

According to Zulu, (2019) sugarcane is an important crop worldwide due to its use being extensive in daily life and its industrial use which is intended for economic substance and dietary reasons. The South African Sugar Industry is famous for its cost-competitiveness, being no fifteen 15 out of hundred and twenty 120 sugarcane-producing countries across the world. The sugarcane stretches across the province of Mpumalanga and KZN this industry makes a significant contribution to the economy feeding millions of people and acting as a catalyst for economic growth and development. It is also overly critical as it contributes to the national fiscus and works in the rural areas of the South African economy. The sugar industry is also recognized as a leading cost-competitive producer of high-quality sugar in the world with an average of 2,3million tons of crushed sugar per year and 76% being marketed in the South African customs union (SASA, 2022).

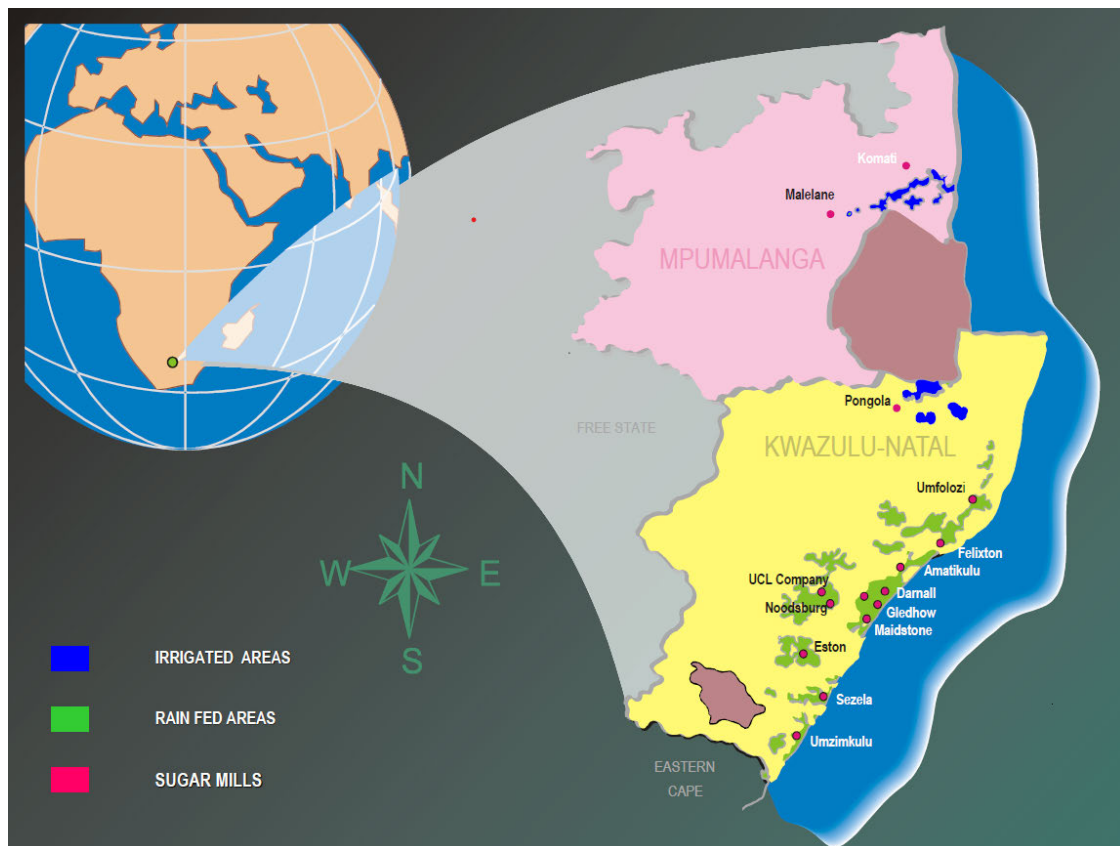


Figure 2.1: The Sugar Industry Map

KwaZulu Natal and Mpumalanga are the focus for the South African Sugar Industry. The Sugar Industry has a total of 20 200 growers. About 19300 growers are growers that are black

producing 24% of the 19 million tons of sugarcane which is produced yearly about 18770 growers producing 11% of the total industry production is small-scale. Producing about 69% of the 19 million tons of sugar which are 680 are large-scale commercial farm which are 50 farmers using miller-owned estate with a total production of 7%.

There are 14 sugar mills in total which three are independently owned and operated, and the balance is owned and operated by the three large milling companies such as Tongaat-Hulett, Illovo, and RCL Foods, who are operating the major sugar refineries (Wilson, 2021).

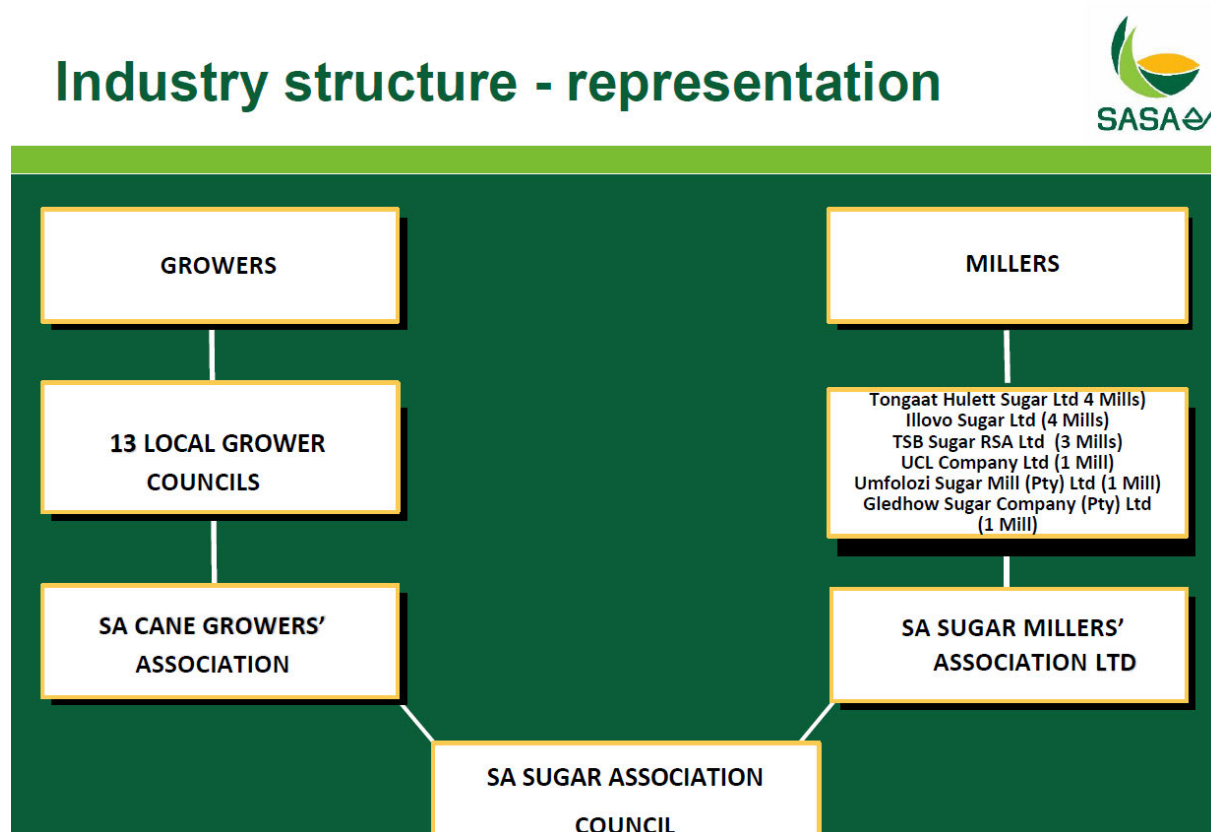


Figure 2.2: The Sugar Industry Structure

Co-generation of electricity, alcohol, furfural and animal feeds are all the diversified forms of production that the miller has invested upon. Raw sugar for exportation, molasses for domestic consumption and sugar production of refined sugar is where the cane growing, and the milling of the company focuses on. There are 270,00 indirect jobs created by the sugar industry and 65,00 people employed directly by multipliers which are both upstream and downstream. One million livelihoods are sustained by the sugar industry especially to the very deep rural areas, this is where income from the industry is available in the form of social grants (Wilson, 2021).

The South African sugar industry still functions under the same regulations before democracy which makes it differ from agriculturally based sectors. The Constitution of the SA Sugar Association, The Sugar Act 1978 (Act 9 of 1978) and the Sugar Association Agreement (2000) are the three statutory agreements the sugar industry is operating under. The millers and growers of the SA Sugar Association will run notional sugar price while managing the division of the proceeds from sugar, the pooling the molasses sales between millers and growers splitting 64%:34%. The sugarcane growers are compensated according to the recoverable value (RV) which is paid per ton cane a pricing formula for cane that is paid depending on the RV content when it is delivered to the mill. The sugarcane growers are compensated according to the recoverable value (RV) which is paid per ton cane of cane as a pricing formula for cane that is paid depending on the RV content when it is delivered to the mill. The millers will share their portion of the revenue according to the share of the total sugar production. The surplus sugar production is marketed as raw sugar by SASA into the export markets through the export terminal at Durban (Wilson, 2021).

The revenues downstream products which are diversified will present a small share of the total miller revenues which are falling out of the Sugar Act and the Sugar Industry Agreement not forming part of the division of Proceeds mechanism (Wilson, 2021).

The share of the SACU market has lowered by 60% due to many challenges that have been experienced by the sugar industry. In the 2019/20 season, there has been a recovery in tonnage to 19 241 812 tonnes of cane crushed and 2 217 055 tons of sugar that have been sold. This has positively shown that this industry is returning to its norm from a drought period of four years starting from the year 2015/16 and in 2017 as well. In 2019 the value of the industry was valued at R13,3 billion, which is showing a contribution of 0,2% of the Agricultural Gross Domestic Product (SASA, 2022).

Based on the business growing sugarcane and supplying sugar when focusing on Tongaat, KZN, Malelane in Mpumalanga and other rural towns and regional centres. The economic impact of the sugar industry proves over a lengthy period to be crucial. Where there might be a lot of employment and economic activity the industry will employ millions of employees from deep rural areas. Ensuring sustainable use of natural resources along with science supporting enterprises contributing to excellent research, technology and offering education and training is all the sugar industry offers. Renewable energy is one of the opportunities for the industry that lie ahead in South Africa (SASA, 2022).

The sugar industry is also diverse combining the agricultural activities of sugarcane cultivation with the manufacturing of raw and refined sugar, syrups, special dyes, and other by-products. This sector of cane growing may comprise 21 926 registered sugarcane growers that farm in KZN and Mpumalanga. The sugar is manufactured in six milling companies with 14 sugar mills in these cane-growing areas. The remainder is exported to countries such as Asia, Africa, and the Middle East (SASA, 2022).

South African Sugar Industry an important contributor to the SA economy



Total average industry income	R12 billion p.a
Gross Domestic Product	0.84% of SA GDP
Export earnings	R2.5 billion p.a
Annual Cane Production	20 million tons
Average value of sugarcane production	+/- R7.7 billion p.a.
Area under cane	~ 371 662 ha
Contribution to SA's total agricultural output	6%
Dependent rural livelihoods	Approx. 1 million people
Direct job opportunities	79 000 (11% of agri employment)
Indirect employment	350 000

Figure 2.3: South African Sugar Industry an important contributor to the SA economy

2.2. Imports and exports

The imports and exports in the South African Industry will include raw and refined sugar, the raw sugarcane is not participatory in the trade. One of the main challenges faced by the sugar industry involves the dropping of the market in South Africa, showing an increase of an exported 1,2 million tons in the 2017/18 season of which some have declined. When you consider that the subsection is depending on the export market for 60% of the product of sugar, the temporal ban on these imports and exports has been rolled out through flattening the spread of the Corona Virus (COVID-19) in March 2020, which is expected to contribute a big loss to the economy of the industry causing a lot of jobs to be lost (SASA, 2021).

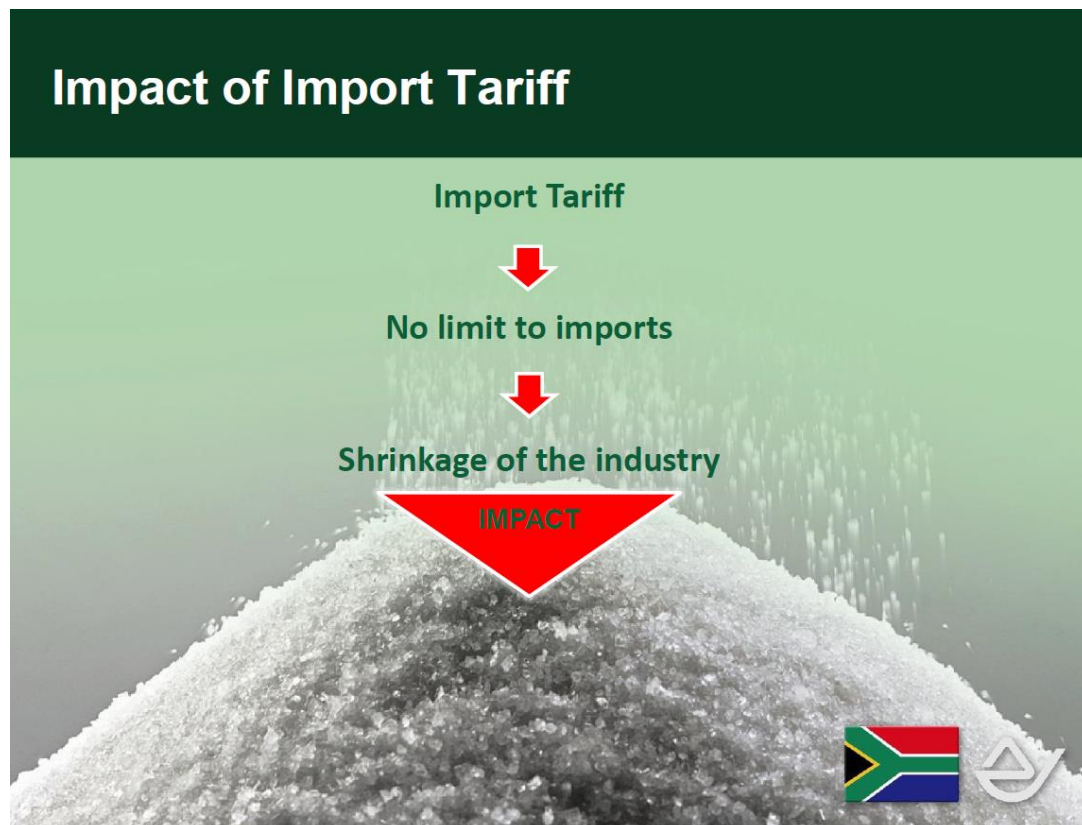


Figure 2.4: Impact of Import Tariff

2.3. Market Analysis

For several years, the sugarcane growers have been selling their cane at Recoverable Value (RV) which is above R4500 per ton. Looking back in history the sugarcane growers in the year 2015 suffered a great loss when the price of the market dropped to R3500 per ton whilst other costs such as fuel prices, labour costing, value-added tax, and input costs increased. The price of RV made a great recovery during the 2019/20 season. It was reported that there had been a significant increase in the value of sugar that is exported from 17,5 million in the year 2017 to around 3,7 billion in 2018. In the year of 2018/19 258,07 tonnes of imported sugar from Swaziland countries (SASA, 2022).

2.4. The Agricultural Sector Challenges

Farming in agriculture consists of numerous challenges which threaten entrant farmers resulting in climate change and the increase in the shortage of water, and training opportunities for growers. There has been a decline in production witnessed among land reform beneficiaries because of land segmentation and training that is limited (Agricultural Strategic Plan-DALRRD, 2020).

The Health Promotion Levy (HPL) and the free tariffs on imports have resulted in negative outcomes on market demand and production. There has been a huge decline in sugar production by R1,5 billion which has caused growers to diversify to other crops namely macadamias, avocados, etc. It is envisaged that the mills might shutdown especially along the costs and that ethanol as a product is a solution (Agricultural Strategic Plan- DALRRD, 2020).

All these challenges mentioned above must be improved by being sustainable, connecting to the market, and being resilient. Training, Agri Parks, and FPSUs seem to be the solution. (Agricultural Strategic Plan - DALRRD, 2020).

2.5. The Sugar Industry Sector Challenges

There have been many challenges affecting the industry such as the health promotion levy, this is a tax on sugar-containing beverages costing the industry 1,5 billion when it was implemented in the year 2018 amounting to 9000 jobs. Due to a lack of market in the sugar industry, South Africa has been forced to export 50% of the sugar at loss due to the world sugar price which is declining below its production costs. The industry has found itself in a predicament of several milling companies and cane growers verging on closing (SASA, 2019). There have been initiatives of implementation and management of working to limit the cheap sugar imports, this has shown huge quantities of sugar imported at cheaper prices in the market compared to locally produced sugar (Gain, 2019).

There have been continuous arguments and comments concerning land expropriation without compensation which threatens the future of sugar cane growers. To try to address the challenges faced by the sugar industry on the 8th of April 2020, a Sugar Master Plan was created to address reviving the sugar industry and addressing all the known challenges the plan has been finalized the implementation has been initiated at lockdown in 2020 (Gain, 2019).

In the past 20 years sugar production in South Africa has annually declined by 25% from 2,75 million to 2,1 million tons per annum. There have been several drops in the sugar industry in terms of production by 60% and industry-related jobs by 45%. The “perfect storm” has taken place which accounts to declining of profitability in the local industry which has taken over and developments in the local and global markets reaching a critical point. Farming in sugarcane agriculture is proving to be no longer sustainable creating conditions where there is a risk of unmanaged decline in the industry, this therefore causing poverty and unemployment. (Wilson, 2021).

There has been a huge decline in the local demand of sugar from 1,65 to 1,25 million tons per annum, which has forced exports in the global market causing the prices to be below the cost of production this is known as the “perfect storm”. Losses result to close to 2 billion due to increased exports that the industry must absorb (Wilson, 2021).

This so-called "perfect storm can be driven by several dynamics such as distorted global prices which are way below the cost of South Africa's production caused by the sales of the surpluses from countries like India. The increment of the volumes of low-priced tariff-free exports from Eswatini in the SACU market is estimated at 500 000 tons in a year. This is a result of the loss of value which is experienced by the Eswatini producers from preferred European Union quotas which were abolished on the 30th of September 2017, the tariff-free access to the South African market the cost advantage which the Swati growers' producers can enjoy over the South African competitors which will allow them to be able to price below the local producers and take the significant share (Wilson, 2021).

The Health Promotions Levy (or HPL), this is a tax for all sugar-containing drinks which was implemented on 1 April 2018, this has been able to reduce the sugar demand for the country of South Africa as the producers of beverages have moved to reformulate their products with less sugar and be able to swop the product mix towards the beverages which have no or low calorie and alternative sweeteners. During the first year, it was implemented the losses ranged from 250 000 tons of sales and R1.2 billion in revenue of income (Wilson, 2021).

The vision of the sugar industry value chain is directed on the diversification from being solely focused on the production of raw and refined sugar that future producing an entire range of globally competitive sugarcane-based products including biofuels, bioethanol (alcohol), bioplastics, co-generated power and a range of other base and specialty chemicals. Training is the solution to all these challenges (Wilson, 2021).

2.6. Training as the solution to the challenges

According to Nakano, (2018) Training in agriculture is an effective method to be able to diffuse the relevant modern technologies to be able to increase productivity and alleviate rural poverty in Africa. Training results from economic, social, and certain environmental difficulties or gaps in work practices. The training will assist in closing those gaps whether they are technical, social, or organizational performance based. The training success will be able to determine the participants learning and on-the-job behaviour or performance improvements when the training

has ended. As a result, the training outcomes have been determined and each variable relies on the other for its existence.

2.7. Grower constraints on farm management and sustainability

Growers tend to have many constraints when focusing on farm management as the research in the Manstrat Report 2018, this involves poor general agribusiness management skills, the lack of business planning and implementation skills, deviating from the business plan that tends to be continuous, lacking leadership skills, lacking production planning and costing skills. There is also a lack of business plan development skills, poor decision-making, lacking strategic farm management skills, and unrealistic business performance (SASA, 2022).

2.8. Training in the Sugar Industry

There are a few providers of the development of skills, training, and education in the Sugar Industry which involves direct skills development, training courses that are specific, bridging courses, industrial and agricultural training, funding of programs and bursaries which uplift the quality of education in the rural primary and high school, the provision of material of nutrition and opportunities, the technology and science field. (SASA, 2022)

The Sugar Industry has certain divisions that offer training and skills which will strengthen such as the South African Research Institute, Shukela Training Centre, and the Nutrition Department. Other establishments contributing to the objective include the Sugar Industry Fund for Education and the Sugar Milling Research Institute. SASA develops the national skills base by training through Shukela Training Centre (SASA, 2022).

The South African Sugar Research Institute offers the sugarcane production course at the junior and senior levels. The training is facilitated by SASRI specialists and will comprise theory and practical sessions covering all the aspects of sugarcane husbandry. The course modules involve the following Farm Management, Husbandry, Pests and Diseases, Soils, Varieties, Weed Control, Irrigation, Environmental Management, Land Use Planning, Harvesting, Mechanisation, and Irrigation. There are written examinations within each subject and a certificate is awarded at the end of the training. This course is high in demand and there are usually long waiting lists as both South African and foreign students enjoy it. These courses are mostly offered in English as the tests are also written in English. The entry requirements range from Grade 10 to 12 with assessments and experience considered as well. The Junior and the Senior Courses take place twice a year (SASRI, 2022).

The SMRI course in Durban is intended as the orientation for the graduates and diplomates that have joined the sugar industry, being extremely popular with the staff which participates in the industry supporting roles e.g., Maintenance, administration, human resources, and agriculture. The course content underlines mostly the basic concepts and factory terminology, cane evaluation and juice chemistry, cane preparation, milling and diffusion, juice heating and evaporation, screening, clarification and filtration, sugar boiling, crystallization and centrifugation, factory performance calculations, by-products, and Bio-refinery, steam and power generation, sugar refining, sugar quality, boiler feed-water and cooling water treatment, effluent treatment and site visits: Engineering and South African Sugar Terminal.

The Sugar Industry Trust Fund for Education (SITFE) Bursary South Africa was founded as a private sector initiative in the year of 1965 and is one of the oldest trust funds in South Africa. SITFE aims to promote and support high-quality, sustainable education within the sugarcane growing areas in South Africa. Since the beginning, this organization has been providing support for several educational programs and projects from the bursaries to the arts and culture, teacher and development, and infrastructure development. These bursaries are allocated to more than 10 000 learners as well as funding for school building projects, and tertiary institution financial support for working alongside the specialist educational organizations. The learners from KwaZulu-Natal and Mpumalanga can apply within the fields of Agriculture, Engineering, and Science at any university of technology or agricultural college namely (Cedara College of Agriculture and Owen Sithole College of Agriculture) (SASA, 2022).

2.9. Agricultural Training at Shukela Training Centre (Pty) Ltd

The Shukela Training Centre (STC) was established in 1974 and is situated at 31 Sugar Mill Way, Mount Edgecombe, Durban. The STC offers Agricultural Training through Learnerships, Skills training courses, and workshop courses to interested individuals. The STC has main accreditation with the Agricultural Sector Education and Training Authority (AgriSETA) and program approval with various other sector education and training authorities (SETAs) (Madlala, 2021).

The agricultural skills training takes place on the farms while the workshop-based training takes place at the STC satellite campus in Mtunzini. The classroom-based training will take place at the STC main campus in Mount Edgecombe, Durban. The Agricultural Training Department offers training that occurs offsite by the farm under operational conditions and considers the sugar farming calendar to allow practicality to the skills training that is offered. The facilitator

of training will train the employees which will decrease the interruption of the farming activities and the practice is effective when learning when focusing on the constant turnaround of farm workers on the grower's farm the seasonal nature of the sugar industry becomes important to ensure that there are regular skills in improving the productivity of the farm. After training the learner receives in-house certificates for their skills courses (Madlala, 2021).

More formal certificates are given for legislative training that is accelerated by relevant bodies. There is also training offered such as Basic Workshop skills, Arc Welding and Gas Cutting, Implement Setting, and Tractor Care available. The Health and Safety in the operational procedures can be considered first for workers who can be involved with tractor and farm implements and STC focuses on all the aspects mentioned when delivering the training (SASA, 2022).

There are workshop-based courses at Mtunzini Campus which range from Arc Welding and Gas Cutting, Elementary Tractor Mechanics, and Basic Workshop Skills all ranging from 10 days to 15 days (Madlala, 2021).

The Skills courses range from one day to five days of delivery offsite. They may be classified into transport-related courses which involve crane operator training, bell-loader operator training, and lift trucks training. There are also driving courses that entail a safety driving course and a learner's license. There are also tractor-related courses which are Tractor Care, Tractor Learner Driver, Tractor Mechanisation, Boomspray Operator, Implement Setting, Mechanical Fertiliser Spreader, Calibration, and Conductor Awareness. There are also farmworker training courses that entail cane husbandry topics such as cane burning, cane cutting, cane husbandry, cane trashing cutting, cane yield estimation, disease identification, Eldana identification, fertilizer Mayfield spreader, fertilizer ordinary worker, hand planting, hand weeding, knapsack operator, soil sampling and variety identification. There is an irrigation course as well, especially for the northern areas such as Pongola and Malelane (Madlala, 2021).

There are also entrant farmer courses which are namely the Induction to the Sugar Industry and the Orientation to the Sugar Industry taking five days in total. There are also management-based courses such as the Senior Supervisor, Applied Business Management, Business orientation, and Junior Supervisor. The health and safety courses involve First Aid Level 1, Fire Fighting, Occupational Health, and Safety, and the Safe Handling of chemicals. The environmental courses involve the Care of the Environment. Another new diversified training involves Macadamia and Vegetable Production. (Madlala, 2021)

Some accommodations and meals are available on both the Mtunzini and the also Durban Campuses on a daily rate basis. The Mtunzini campus can accommodate a maximum of 15 neds, whilst the Durban campus has diverse options available accommodating the maximum amount of 260 learners (Madlala, 2021).

There are also learnerships at Shukela Training Centre. Leadership is a work-based approach to learning and gaining qualifications and will include both the structured work experience (practical) and the structured institutional learning theory. The criteria that are set out in the Skills Development Act emphasize the fact that the leadership must include a structured learning component, including practical work experience, lead to a qualification and relate to an occupation (Mbili, 2021).

The learnerships are important as the learner will interact within the working environment (practical), the learner will also interact with the clients and obtains an understanding of the workplace dynamics, the assessment occurs at various stages and is based on the learners' competence (learner cantered), the qualification is recognized both nationally and is benchmarked against international standards and the learner can be able to start for NQF Level 1 up to NQF Level 4 (Mbili, 2021).

STC currently offers the NQF Level 4 Plant Production which is known as the Junior Farm Manager Course, this takes place in 12 months, and has 70% practical to 30% theory, the practice is done on the farm and the theory is done at STC. The theory has different sessions, each session having three weeks in total. The practical is done in between the theoretical sessions, the learner is required to compile a POE with the assistance of the Mentor/Supervisor, the program will have 35 Unit Standards, the learner has experience in Plant Production preferably sugarcane and the learner should have done Grade 12. The NQF Level 1 Plant production is known as the Elementary Farm Worker Course, it is a twelve-month program that also involves 30% theory and 70% practical. The practical is done on the farm and the theory is done at STC like the NQF level 4 but here the learner must have a Grade 10. Other leadership that STC offers include the NQF Levels 2 and 3 (Mbili, 2021).

The funding that is available for this training is from the AgriSETA service provider, therefore the farmer can also do the application for funding through AgriSeta. The farmer can apply for both leadership and skills programs. Other ways of obtaining funding can be through the Learnership Tax Incentive but to qualify for the allowance the learnership agreement must be

registered according to the Skills Development Act, 1998, and entered before a certain date. There are numerous unit standards under NQF levels 1 and 4 for this leadership (Mbili, 2021).

2.10.1. Challenges faced by the STC Agricultural Department

2.10.1.1. Lack of stakeholder co-ordination (Stakeholders Training Forum to be created)

There is a wide range of role players within the sugar industry such as CANEGROWERS, SAFDA, SASA, AgriSETA, the Department of Agriculture and Rural Development and the sugarcane growers who are commercial, land reform and small-scale who must form all form a co-ordinating body that needs to regularly review the performance of STC and give a co-ordinated direction in terms of agricultural trainings offered at STC which aims at reviewing the optimal impact on the performance of the agricultural training institute. The committee's mandate will also ensure that they assist with MOU's and agreements on training to be provided to their growers and with funding (Madlala, 2021).

2.10.1.2. Poor and inconsistent quality control (Diversification) – The curriculum that is currently in place is being revamped to better suit the requirements of the sugar industry clients. The new curriculum is aimed at standardising the level of education offered by the instructors and give sequence to their training in terms of days and the information shared with the learner (Madlala, 2021).

2.10.1.3. Ineffective and non-responsive education and training systems – the sugar industry client's requirements have gradually evolved overtime, hence shifting their focus towards diversification of crop production, also there has not been an appropriate response in formal education and training curriculum content to address the required improvement in areas such as marketing, management, value-adding and other practical skills. Positioning agriculture as a market-directed business could be profitable as opposed to being taught only as a production enterprise (Madlala, 2021).

2.10.1.4. Poor access to STC by emerging farmers and new entrants into the agriculture sector - Previously disadvantaged communities, and in particular women and the disabled continue to have poor access to quality training. This is a result of various barriers, including affordability, admission requirements, physical distance from training centres, literacy and numeracy, language of instruction and scant resources available to those charged with the responsibility of providing training to these communities (Madlala, 2021).

2.10.1.5. Pricing of the courses and payment structure – This training is done at approximately 50% of cost, with the other 50% being paid for from the SASA Levy. This has resulted in contributing to the lower income achieved on the Agricultural Department since costs of providing the training far exceed the income of the training itself often leading to a loss or deficit at the end of the financial year of 2 million to 3 million rands. The payment for the course is currently based on the number of learners who have attended the course as opposed to the price of offering the course itself that will cover all the costs related to the training regardless of the attendance or participation of the learners (Madlala, 2021).

2.10.1.6. High training costs – A substantial percentage of the training is offered offsite rather than onsite which proves to be awfully expensive, offering a higher percentage of the training onsite will improve income diminishing travelling costs. Greater emphasis hence needs to be shifted towards learnerships at STC and bidding for tenders under The Department of Agricultural and Rural Development (Madlala, 2021).

2.10.1.7. Other competitors – Although the Shukela Training Centre has been a brand name for the past 25 years across the sugar industry other agricultural training institutes have risen who show to be extraordinarily strong contenders and pose a huge threat to the Shukela Training Centre (Madlala, 2021).

2.10.1.8. Marketing of the agricultural department – it is becoming more vital that the Agricultural Department creates a budget to market itself well-known throughout the sugar belt since its competitors' have been poaching some of the STC's long standing clients by being more proactive and aggressive with their advertising strategies. STC need not take for granted that it's well known throughout the industry but however must treat themselves as a new training company. Clients often as well require re-assurance that the training company is still the company that they once knew and relationships must be well maintained externally by especially the management of the department by making regular visits to the clients, once a week. The instructors themselves also must hand out the department's price list to the learners every time they train the client. Clients should always be left with a reminder of STC after each training in the form of a calendar and year planner (Madlala, 2021).

2.10.1.9. There is a shortage of critical skills - Agriculture draws on a wide range of scientific and practical skills and knowledge. These can be categorised in to five broad areas, Shukela Training Centre, however, can only focus on the aspects which are Agricultural Production, Economics and Development (Madlala, 2021).

2.11. Training in a nutshell

According to Ndlela (2020) training is about building the farmers' capacity to run their farming enterprise to ensure the sustainability of the enterprise and learn continually. Building farmer capacity is beyond improving the knowledge and skills to genuine inclusive participation in the development of a farm program, especially including decision-making. A company needs to be competitive to face the challenges concerning globalization. The competitive advantage of the company will depend on the knowledge and skills that the employees own. According to Karim et al., (2019), Training will lead to high performance in a company and the success of the organization itself. Therefore, there is a relationship that exists between training, development, and employee performance. Companies are facing extreme competition because of changes concerning technology and the environment of the business. Globalization and what the client requires have added a lot of challenges to the business organization. To meet challenges the company must reach its profit through training. Training focuses on improving the knowledge and skills of the learner. Training is beneficial to technological motivation, market competitions, and organizational structuring and changes the performance of the employee (Karim et al., 2019).

Training is the learning process that is indispensable in terms of human development. It can also be seen as a learning activity to assist to acquire specific knowledge and skills for a task or occupation or task. It is also an indicator that assists in enhancing superior skills, knowledge, and capabilities and the outlook of the employees that will result in the effective performance of the workers. Training well extends the production of the company as well. Training assists in an employee performing better in the current job that they are in. There are several types of training as well such as on-the-job, or instruction training, apprenticeships, internships, assistantships, job rotation and coaching lectures, games, simulations, and computer-based training (Karim et al., 2019).

Armstrong and Brown (2019) concluded that training is the use of systematic and planned instruction activities to promote the learning process) and development refers to the training program as well as formal education, job experiences, work relationships, and assessments of personality, skills, knowledge, and abilities that help employees prepare themselves for future jobs or positions. Training and development will contribute to focusing on social knowledge and improving the skills that are needed to perform a certain role within the organization. The training will assist the employees to be able to perform their tasks to the best of their ability with adequate knowledge and skills. Usually, for the human resources department, training has

been a major factor in terms of improvement of the knowledge of the employee, their abilities, and their way of thinking. Training leads to an increment in productivity, the performance of the organization is improved, and the customers are satisfied. The training will also assist in aligning the employees with the strategies of the organization. The training also assists with strategic benefits within an organization such as improvement in the employee capability when they must face certain obstacles and often alterations within the external environment and the changes which came about from the Covid-19 pandemic and enhancing the employee levels with regards to their satisfaction, commitment to the organization and the delivery of the service as well. When the employees are trained, this will improve their knowledge of the employee, satisfaction, and ability which will end up giving service that is quality and satisfies customers (Karim et al., 2019).

Knowledge and technology are forever changing, and the importance of training is becoming vital more be able to enable workers to be able to achieve the objectives of the corporate effectively and creatively. The aim of the training is towards the increment of the effectiveness and the efficiency of the worker work to be able to meet their work program goals which they have established. When the organization's training program is strong then the more proficient the workers will be at performing their tasks or jobs. Training concerns equipping the workers with the essential information that they need to be able to behave and act along with the job issues that they enquire. When comparing workers who obtain training regularly or compared to these people will be able to generate higher-quality results (Madhanpall, 2021).

Training will assist the workers to be able to increase their abilities in the job and where the workers have their responsibilities when focusing on the work that they must do. When training is discussed, it is seen to be able to enhance their ability in the job where the workers have responsibilities about their tasks. Training is in the order starting from gaining knowledge, skills enhancement, and behaviour improvement which applies to the requirements of the organization to be able to achieve the objectives of a company. When the training is done, the leader's role is important when motivating workers since after the training the employees must be sure on being able to fulfil their responsibilities and tasks (Madhanpall, 2021).

In a case where there is no support for professional advancement then training alone becomes insufficient. Training is extremely critical as it increases the productivity of the staff, improves the work attitude, and creates joy. The employees will obtain a chance to grow during the training. The employees that feel that their manager takes diligent care of them well feel

obligated to bring back the extra mile to aging through engagement. The employee will work willing seasonal to assist the company to accomplish its goals and objectives (Madhanpall, 2021).

2.12. Determining benefits of training

Establishing the advantages of farm workers and grower training can be extremely hard because of several methods which will be considered that considered variables. A particularly good method is tracking advantages through analysing the operational result to determine the factors to check if the cost of training outweighs the benefits or if the training impacts the factors of the business. Seven critical factors must be focused on when a system is developed to track operational change that includes identifying clients and establishing what is required. To establish programs of training programs contributions it must be a possibility to demonstrate certain connections which exist between indicators and skills which are taught in the training proving offerings training for skills and closely monitor the operational indicator and their movements (SASA, 2022).

2.13. Developing the National Skills Base

SASA contributes to strengthening skills by offering Grant Development Accounts to sugarcane farmers in science and technology. The industry promotes supporting small-scale farmers on tribal land. There are also mentoring programs focusing on business skills and grower support extension services are given to support cane-growing activities. SASA provides in-field training to small-scale farmers, which is accredited, and certified in sugarcane agriculture, and provides technology transfer and extension services (SASA, 2022).

The contribution that is multifaceted towards the skills development, training, and education by the South African Sugar Industry will include skills development, specific training courses, bridging courses, agricultural and industrial training, the provision of bursaries, the finding of the programs which will be able to improve the quality of education in the rural primary and high schools, the provision of material on nutrition, and opportunities in the science fields and also technology. The divisions of the South African Sugar Association delivering the objective of strengthening skills which will include the South African Research Institute, the Shukela Training Centre, and the Nutrition Department. The other establishments may also involve the Trust Fund for Education and the Sugar Milling Research Institute.

Human Resource Development is a major area of social investment for the sugar industry. Several initiatives will be maintained in the industry to be able to promote human resource development and are primarily focused on promoting Broad-Based Economic Empowerment. The initiatives are multi-dimensional.

The brief overview below shows the ownership profile, the focus of the industry will include the progress of the transformation which will be through the ownership profile of the sugar industry through the land reform along with the initiatives made by the milling sector which has resulted in the increment of the black ownership of the sugar manufacturing capacity, for example, looking at the Gledhow Sugar Company (Pty) Limited which has 34.9% black ownership.

The support services, sugar industry entails an exceptionally long history of promoting and supporting small-scale farmers on their tribal land.

2.14. Skills Development Act

This act focuses on an institutional framework to be able to implement the national sector and the strategies in the workplace to be able to develop and improve the skills of the South African workforce. The aim of the Act is also to integrate those strategies within the National Qualifications Framework which is contemplated in the South African Qualifications Authority Act 1998. The act also aids in the provision of leadership leading to recognized occupational qualifications. It also aids in providing financing skills development through the levy grant scheme and National Skills Fund. The act provides for and regulation of the employment services and the provision for the matters which are connected therewith (Pandor, 2019).

2.15. The National Skills Development Plan

To be able to understand the skills needs a multi-tiered approach is used, firstly to be able to determine skills at the organizational level, and understand skills needs at the workplace, both in the private and the public sectors. Secondly, being able to determine skills at the sectoral level of occupations in high demand and priority occupations, and thirdly to determine skills at a national level including provincial and local levels of the occupations in demand and the priority occupations. Some of these are already there in place requiring improvement timeously through Workplace Skills plans and Sector Skills Plans (Pandor, 2019).

To be able to understand the skills demand one must analyse sectoral growth and development plans and labour market information. Analysis results in the evidence-based understanding of skills and occupation requirements supporting economic and social development priorities (Pandor, 2019).

2.16. Service Quality

Services can be known as economic activities which are performed by one party to the other party. After some time, the performances bring about the results required regarding the recipients, assets, and objects as well. When exchanging for money, the time and effort the customers want value for skills, labour, expertise, networks, and systems. They do not often take ownership of the physical elements. The quality of the service is the gap which is between the customers' expectations when focusing on the service and the way they perceive when regarding the service quality is delivered. This, therefore, looks at the fact that the opinion of the customer when focusing on the service quality is made by the manner of comparing the performance and the expectations. The main aim of providing the service to the customer is to meet the expectations of the customer.

2.17. The relationship between training and service quality

The relationship between the quality of the service and the actual training can be described when using the social exchange theory. The training is often seen as a gift from the company that assists in developing the knowledge and the skills of an employee and then the employees will reciprocate that to the company by ensuring that there are increased efforts while giving the best service quality. Training will assist in improving the productivity and performance of the employees. After the training, the employees will be working much better and improve their attitude which will help in creating a good relationship with the company.

2.18. Training Evaluation

Training can be regarded as a critical way of enhancing the workers' productivity which is a demand in companies. Training is an investment that will provide value and influence the results of the business. Training evaluation is critical and must be done professionally. If the training evaluation is not conducted, then it becomes difficult to prove the value of the training or why the training exists. For training to become a success it all depends on the steps of execution of the process and the previous training needs analysis, development and the training plan, and evaluation. The training evaluation focuses on the impact on the success of the business as it is

seen as an investment and the company must know the returns, they are expecting to receive from the investment. The evaluation will measure the impact on society. The evaluation of the company will also focus on the quality of the training, productivity, and morale due to training. They will also have to compare the costs versus the benefits and customer satisfaction. There are many models that assist in training evaluation such as the Kirkpatrick model, CIRO, the return-on-investment model, training validation system approach and the input process output model. The study will focus on the Kirkpatrick model (Masta and Janjhua, 2020).

2.18.1. The Kirkpatrick Model

Evaluation is critical for curriculum development in education. There are intense pressures with regards to the evaluation of the curriculum and programs in education for different purposes but mainly to achieve goals. The purpose of the Kirkpatrick model is to assist managers for a systematic and also efficient means and account for outcomes among employees and in organizational systems. Mostly this model is applicable to the manager who requires solid evidence that training will improve the sales quantity, cost-effectiveness and other business indication and the model was adapted. (Cahapay, 2021)

This Kirkpatrick Model contains four levels which are reaction, learning behaviour and impact. The levels were designed to appraise the apprenticeship and workplace training. There is also a recommendation that all the programmes be evaluated in the progressive levels as resources allow: Below are the levels:

- The reaction level will determine the level of satisfaction of the participants or how they felt about the training programme. This level will focus on how engaged the participants were, how they contributed, responded and perceived the training programme.
- The learning level measures the level of the skills and knowledge, values acquired by the participants from the program. This level is a measurement of the participants thoughts on the ability to perform the change that is expected and how assured they are that they will or can perform it.
- The behaviour level determines the changes of the participants in the work environment because of the program. This measurement will occur as an activity over certain weeks or months following inputs that the participants would receive in the training programme.
- The most critically the impact the land will be able to examine the outcomes of the institution which demonstrates a great return on investment being attributed to the

training programme. After one considers the institutional outcomes, a task which may be challenges is to design a method evaluating these outcomes that are long-term in nature.

The main strength of this model is being able to evaluate the theory and practicality of training. This model has the ability to provide the simple system or language when dealing with the outcomes that are different and how the information concerning these outcomes is obtainable. The descriptive or the evaluation information about the type of training is required and allows the organizations to be able to anchor results of what is done in the businesses point of view and also the practical approach for the evaluation process. (Cahapay, 2021)

Please see below the detailed Kirkpatrick's Four Levels of Training Evaluation in Detail.

Kirkpatrick's Four Levels of Training Evaluation in Detail

This grid illustrates the Kirkpatrick's structure detail, and particularly the modern-day interpretation of the Kirkpatrick learning evaluation model, usage, implications, and examples of tools and methods. This diagram is the same format as the one above but with more detail and explanation:

EVALUATION TYPE	EVALUATION DESCRIPTION AND CHARACTERISTICS	EXAMPLES OF EVALUATION TOOLS AND METHODS	RELEVANCE AND PRACTICABILITY
LEVEL 1 REACTION	<ul style="list-style-type: none"> reaction evaluation is how the delegates felt, and their personal reactions to the training or learning experience, for example: <ul style="list-style-type: none"> did the trainees like and enjoy the training? did they consider the training relevant? was it a good use of their time? did they like the venue, the style, timing, domestics, etc? level of participation ease and comfort of experience level of effort required to make the most of the learning perceived practicability and potential for applying the learning 	<ul style="list-style-type: none"> typically 'happy sheets' feedback forms based on subjective personal reaction to the training experience verbal reaction which can be noted and analyzed post-training surveys or questionnaires online evaluation or grading by delegates subsequent verbal or written reports given by delegates to managers back at their jobs 	<ul style="list-style-type: none"> can be done immediately the training ends very easy to obtain reaction feedback feedback is not expensive to gather or to analyze for groups important to know that people were not upset or disappointed important that people give a positive impression when relating their experience to others who might be deciding whether to experience same
LEVEL 2 LEARNING	<ul style="list-style-type: none"> learning evaluation is the measurement of the increase in knowledge or intellectual capability from before to after the learning experience: <ul style="list-style-type: none"> did the trainees learn what intended to be taught? did the trainee experience what was intended for them to experience? what is the extent of advancement or change in the trainees after the training, in the direction or area that was intended? 	<ul style="list-style-type: none"> typically assessments or tests before and after the training interview or observation can be used before and after although this is time-consuming and can be inconsistent methods of assessment need to be closely related to the aims of the learning measurement and analysis is possible and easy on a group scale reliable, clear scoring and measurements need to be established, so as to limit the risk of inconsistent assessment hard-copy, electronic, online or interview style assessments are all possible 	<ul style="list-style-type: none"> relatively simple to set up, but more investment and thought required than reaction evaluation highly relevant and clear-cut for certain training such as quantifiable or technical skills less easy for more complex learning such as attitudinal development, which is famously difficult to assess cost escalates if systems are poorly designed, which increases work required to measure and analyze

EVALUATION TYPE	EVALUATION DESCRIPTION AND CHARACTERISTICS	EXAMPLES OF EVALUATION TOOLS AND METHODS	RELEVANCE AND PRACTICABILITY
LEVEL 3 BEHAVIOR	<ul style="list-style-type: none"> behavior evaluation is the extent to which the trainees applied the learning and changed their behavior, and this can be immediately and several months after the training, depending on the situation: did the trainees put their learning into effect when back on the job? were the relevant skills and knowledge used was there noticeable and measurable change in the activity and performance of the trainees when back in their roles? was the change in behavior and new level of knowledge sustained? would the trainee be able to transfer their learning to another person? <p>is the trainee aware of their change in behavior, knowledge, skill level?</p>	<ul style="list-style-type: none"> observation and interview over time are required to assess change, relevance of change, and sustainability of change arbitrary snapshot assessments are not reliable because people change in different ways at different times assessments need to be subtle and ongoing, and then transferred to a suitable analysis tool assessments need to be designed to reduce subjective judgment of the observer or interviewer, which is a variable factor that can affect reliability and consistency of measurements the opinion of the trainee, which is a relevant indicator, is also subjective and unreliable, and so needs to be measured in a consistent defined way 360-degree feedback is useful method and need not be used before training, because respondents can make a judgment as to change after training, and this can be analyzed for groups of respondents and trainees assessments can be designed around relevant performance scenarios, and specific key performance indicators or criteria online and electronic assessments are more difficult to incorporate - assessments tend to be more successful when integrated within existing management and coaching protocols self-assessment can be useful, using carefully designed criteria and measurements 	<ul style="list-style-type: none"> measurement of behavior change is less easy to quantify and interpret than reaction and learning evaluation simple quick response systems unlikely to be adequate cooperation and skill of observers, typically line-managers, are important factors, and difficult to control management and analysis of ongoing subtle assessments are difficult, and virtually impossible without a well-designed system from the beginning evaluation of implementation and application is an extremely important assessment - there is little point in a good reaction and good increase in capability if nothing changes back in the job, therefore evaluation in this area is vital, albeit challenging behavior change evaluation is possible given good support and involvement from line managers or trainees, so it is helpful to involve them from the start, and to identify benefits for them, which links to the level 4 evaluation below

EVALUATION TYPE	EVALUATION DESCRIPTION AND CHARACTERISTICS	EXAMPLES OF EVALUATION TOOLS AND METHODS	RELEVANCE AND PRACTICABILITY
LEVEL 4 RESULTS	<ul style="list-style-type: none"> results evaluation is the effect on the business or environment resulting from the improved performance of the trainee - it is the acid test measures would typically be business or organizational key performance indicators, such as: volumes, values, percentages, timescales, return on investment, and other quantifiable aspects of organizational performance, for instance; numbers of complaints, staff turnover, attrition, failures, wastage, non-compliance, quality ratings, achievement of standards and accreditations, growth, retention, etc. 	<ul style="list-style-type: none"> it is possible that many of these measures are already in place via normal management systems and reporting the challenge is to identify which and how relate to the trainee's input and influence therefore it is important to identify and agree accountability and relevance with the trainee at the start of the training, so they understand what is to be measured this process overlays normal good management practice - it simply needs linking to the training input failure to link to training input type and timing will greatly reduce the ease by which results can be attributed to the training for senior people particularly, annual appraisals and ongoing agreement of key business objectives are integral to measuring business results derived from training 	<ul style="list-style-type: none"> individually, results evaluation is not particularly difficult; across an entire organization it becomes very much more challenging, not least because of the reliance on line-management, and the frequency and scale of changing structures, responsibilities and roles, which complicates the process of attributing clear accountability also, external factors greatly affect organizational and business performance, which cloud the true cause of good or poor results

Figure 2.5: Kirkpatrick's Four Levels of Training Evaluation in Detail

2.19. The impact of Training and Development

When it happens that an employee is lacking training or the skills which are required to be able to communicate to be able to improve performance it becomes a predicament. If an employee is trained, then that employee is well equipped and has the adequate tools to perform outside or inside that organization. Training will often result in the employee being able to perform. Quality training encourages long-term profitability and optimum performance of the organization (Younas, 2021).

Training does not only invest in the qualifications of its employees but will also add value the motivation to the players of the team. Most organizations today guarantee long-term success, competitive advantage, and productivity of the company. One must invest in training. This will also increase the decision-making and problem-solving capabilities of the environment (Ozkeser, 2019).

2.20. Training in a business

The training that is done in a business will give the skills that are necessary knowledge and skills to be able to enhance the performance of the employees and bring benefits to the company. Training is also crucial when one determines the effectiveness and efficiency of the organization. The concepts referred to as quality, efficiency and commitment must be adopted (Karim et al, 2019).

2.21. The Challenges in grower training

There are often very low levels of training that are often attributed to the lack of funds, although the prices are often reasonable, there is a lack of understanding on realizing the importance of the training, the low level of literacy and numeracy, the high admission requirements, the mode of delivery that can be inappropriate, the farmers lack the confidence to learn sometimes and there may be often language barriers (SASA, 2022).

2.22. The preferred modes of training

The mode of training can be identified as a barrier when growers are attending training. The farmers usually prefer several training modes such as:

Duration – the farmers prefer a shorter duration so that they can be able to take a brief time off from these farm duties. In the case of many farmers leaving the farm for a lengthy period is inconvenient.

The training should be aligned according to agricultural operations, when planting the training should be done before planting the same as for harvesting.

The location of the training is preferable to be by the farm or close to South Africa KZN

The format of the training can be preferred to be demonstrated, structured exercises and group discussion (SASA, 2022).

2.23. Satisfaction with the training delivery

The growers are satisfied that the training is well-designed, these are relevant, useful, and practical, informative, and complete. The course content is focused on solving problems and issues that they face on the farm. The farmers know they need to learn about the topic (SASA, 2022).

2.24. The weaknesses in the delivery of training

2.24.1. Business and Financial Management – There is a gap identified for the business and financial management course. There is however a greater concern which is personal financial management. This gap is the most important gap which tends to be a barrier for the farmers to become successful (SASA, 2022).

2.24.2. Practical exposure is lacking – Sometimes one will find out that practical skills training is lacking. There always needs to be a practical component to the training.

2.24.3. Learning styles – The assorted styles of learning of a wide range of farmers are not accommodated.

2.24.4. The retention of course content – It is often difficult to retain theory and not a practical knowledge of theory training especially when there are no practical examples.

2.24.5. Immediacy – Knowledge should be given to the growers as and when it is required and not be overlooked so that the grower can remember the information.

2.24.6. Language barriers – Most courses should be translated into the IsiZulu, Siswati, and Sesotho languages since English can tend to make learning difficult for the farmers.

2.24.7. Applicability – The sections in the training that are seen as irrelevant must be removed or marked as irrelevant since they do not contribute to the essential background knowledge.

2.24.8. There may be sometimes a lack in terms of individual aids that may be taken home.

2.24.9. Farmer participation in course content. The farmer would also enjoy being part of the choice or options concerning the choice of sub-topics within reasonable limits.

2.24.10. The level of knowledge between the farmer must be known as well. One should be able to group the farmers according to their level of knowledge and by their level of experience as well. This will assist in not holding back some farmers who already have a lot of knowledge.

2.24.11. Some misconceptions must be directly addressed. Sometimes the new learning material will be contradicting the current view of a farmer, the learning institutionalization is retarded.

2.24.12. Post-training support

Is required on the farm as a form of mentorship, the refresher course, and able to obtain theoretical advice from other experts. This tends to be critical for farmers with no previous experience in agriculture. This is a systematic process where one can collect information utilizing that information to be able to enhance the training. The evaluation will be able to assist in the identification of the training that is achieved to the intended outcome; it will also assist to enable decision-making concerning future training. The types of evaluation involve reaction, behaviour, learning, and resolution (SASA, 2022).

2.25. Training in crop diversification

There must be alternate and additional crops to be able to supplement the sugarcane production in the sugar industry especially off-season to boost the grower's income. Several crops have been identified that can supplement or replace the cane, but these crops can be costly to implement such as macadamias, bananas, etc (SASA, 2022).

2.26. Training Impact and analysis

The impact is the effect that something has on something. This is the action or the force of an object hitting another object. This is concerning the assessment of the performance and the overall effectiveness of the training. The way one can evaluate the impact of training is by using self-assessment questionnaires, feedback from managers and peers, focus groups, on-the-job observation, job performance, and key performance areas. This is the assessment of the extent to which the learning has made a difference in that specific targeted area (Urbancová, 2021).

2.27. How do you evaluate the effectiveness of training and the model?

This is a systematic process where one can collect information utilizing that information to be able to enhance the training (Urbancová, 2021).

2.28. Measuring the impact of training

It is critical to be able to measure the impact of training to determine the efficacy of training programs is important in the evaluation of the training programs. There is an intense lack of impact evaluations to assist policymakers and development practitioners to understand the impacts that are casual concerning training, especially in poor nations. The most important despite its vital implications for agricultural and rural development policymaking is to the best of our knowledge, no careful empirical study has been done on the impact of Agric Dept training offerings to the sugar industry and neither has there been farmer-based investigation on the agricultural training achieving its objective.

The process assessment, the outcome assessment, and the impact evaluation are all examples of the program performance evaluation. The process evaluation will evaluate whether the training is performing as it has been intended. This is mostly evaluating the strategy of the program and the individual activities. All the changes in knowledge and attitude will be known as outcomes. The impact assessment will look at the change in the person's life due to the training that has taken place which can be personal or social. This is a greater scale version of the question that the trainers will ask of each session, module, and the bigger program component. All the organizations need to perform progress tracks on the training and the development curriculums to be able to make sure that the curriculum leads the company in the correct direction and to enable determination on the actions or certain behaviour changes which may result from the training alignment with the business case or also the reasons for the change and the justification of the training and costs of development.

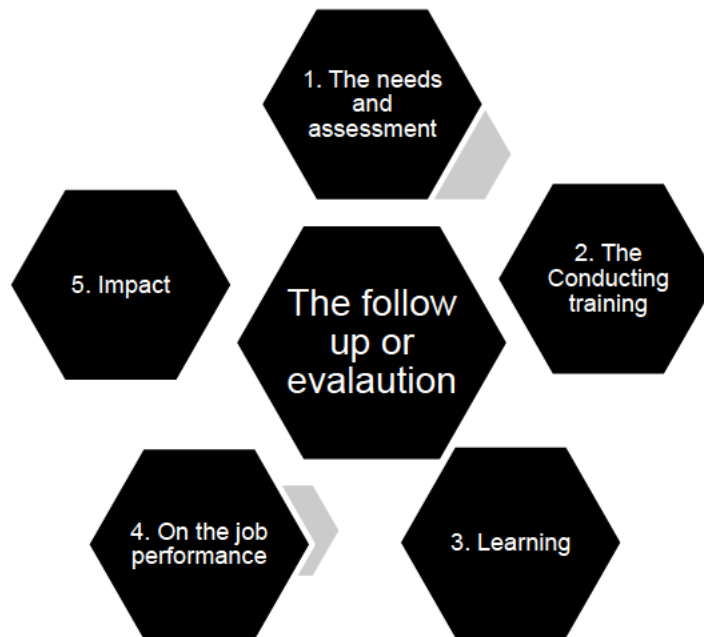


Figure 2.5: Measuring the impact of training

2.29. Training plan process

The training effectiveness is the actual extent to which the training will meet its intended goal and the degree to which the training is responsive to the needs of the clients and the way the activities of the training process can be defined, interrelated, and conducted when starting from conception and the formulation delivery. It will have assessments of the context, the process, the product, and the impact. The training to be effective must be problem-oriented, needs-based, and must be measurable and there must be learning achievable objectives that can show changes in knowledge skills, and attitude as well as the changes in the performance of the job and the outcomes over time which can be implemented in ways and materials which are conducive to the learning of adults and with continuous follow-up where the activities and the result may be reviewed, monitored and also evaluated.

The success of the program of training must be evaluated as part of the bigger inquiry into the grower's conditions. It makes necessary a comprehensive review of the areas of the process of the training. This looks at the involvement of the customers and stakeholders in recognizing and being able to prioritize their needs, establish attainable goals, and being able to implement, monitor, and assess the training. The impact that they had on the grower's performance as well as what they can do after the training.

2.30. The Sugar Industry Development Pathway

The industry has responded to the Manstrat Report and has developed a comprehensive training and education program, which will be submitted to the Land Reform Committee and Council for consideration at the proper time. The industry proposes a "training pathway" to support prospective and entrant farmers as well as farm workers in career development as shown on the info-graph below. The initial contribution from Shukela Training Centre will be in Plant Production and Skills courses (Madhanpall, 2018).

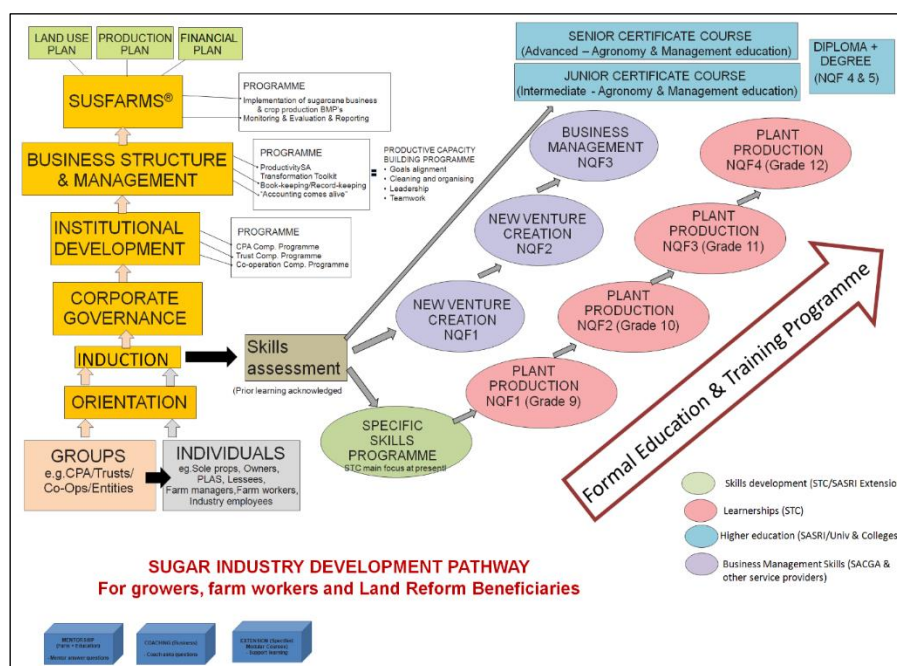


Figure 2.6: The Sugar Industry Pathway

The Manstrat Report in 2018 highlighted the need for STC to incorporate a selection of training principles, methods, models, and modes of delivery into our current way of delivery of skills training. The report also highlighted the need to amend the curriculum and expand the course offerings and recommended that a selection of priority training or parts of it should be available in audio and DVD format. Simultaneously, the STC Committee recommended that agricultural training craft a sustainability proposal to expand the scope of agricultural training. These two recommendations have culminated in the development of this proposal that addresses the two recommendations concurrently.

Chapter 3: Research Methodology

3.1. Introduction

The previous chapter focused on the literature review based on training in the sugar industry. The following chapter is focusing on research. Research tends to seem like it may be intimidating but it is merely concerning finding solutions for problem after a study and then analyzing the results thereafter.

Creswell, (2018) mentioned that this will be able to provide a quantitative or numeric description of the trends, attitudes, or opinions of a population by being able to study a sample of that population. This would include a cross-sectional and longitudinal study utilizing questionnaires or structured interviews for the collection of data with the intent of generalizing from a sample to a population (Creswell, 2018).

The researcher used quantitative research as it works for behaviour, opinions, attitudes, and other types of variables to make generalisations from a large population. Quantitative research allows, one to see patterns by using statistics. In this case survey research is used by means of online Microsoft questionnaire created by the researcher. This is utilized to judge behavior and random participants were picked. The quantitative research is less biased or objective and is much more focused.

The main purpose of this study was to investigate the impact of the training offered by Shukela Training Centre (Pty) Ltd to the sugarcane growers and the sugar industry stakeholders at large. There were questions that were structured to be completed online through a link by the participants. The main aim of this research was to:

- To establish whether the learners had attended the Agricultural Training at Shukela Training Centre (Pty) Ltd
- To determine whether the training met the learners' expectations
- To find an indication of whether the credit-bearing courses were preferable to learners versus the current skills courses
- To explore ways in which the agricultural training offerings could be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC)

The research methodology chapter focused mostly on the type of methods and the criteria for choosing the participants in the study. A discussion of the appropriate tools and methods utilized

in the research was done. Ethical clearance, assumptions, and data collection will be in the research. Toward the end of the chapter, there is a conclusion.

3.2. Aim of study

The primary aim of the evaluation was to improve STC agronomic and non-agronomic training agricultural training, by discovering which training programs are successful in achieving their stated objectives. The intention is for industry members (SACGA, SAFDA, SASMA), as clients was to provide a better understanding of SASA, and STC by determining whether the training and development objectives are being met, determining the effectiveness of the different components of the training and development program (e.g., contents, training support, facilities and environment (location), program schedule, presentation style, the instructor, etc.) to determine whether the training and development program assuming this refers to each training course justifies the cost i.e. need to establish current actual cost vs fee charged, to decide who (number and type of potential participants) should participate in the future program. Lastly to assess which participants gained the most or the least from specific programs then agree and ask why. To focus on the Agricultural Training Department clients' needs and appropriately position the department towards addressing those needs. Keeping up to date with the latest developments within the sugar industry specifically and the agricultural sector in general and identifying and exploiting new opportunities for the department.

3.3. Participants and location of study

The study area is KwaZulu Natal since it covers growers from all mill areas who have done training with STC as the figure 3.1. All the growers and stakeholders were obtained from the STC client database. The Sugar Industry consists of fourteen mill areas in total as per figure below:

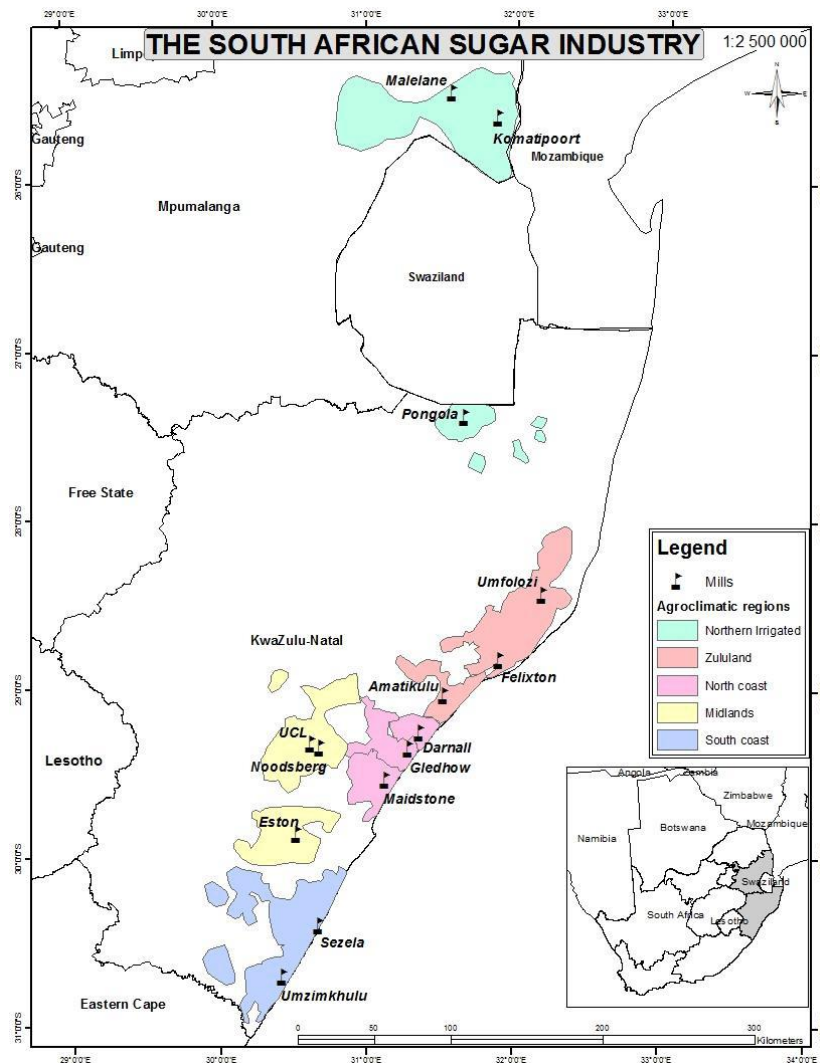


Figure 3.1: Sugarcane growing areas in South Africa (Source: SASA, 2022)

The participants for study were South African sugarcane growers in the STC database which was inclusive of the commercial, land reform, and small-scale growers. Other participants were also sugarcane stakeholders which were namely the millers and grower associations. The participants of this quantitative study were selected based on target population.

3.4. Data Collection Strategies

3.4.1. Sampling and determining sample size

The population for this study was done for all the sugarcane growers in the database, which is inclusive of the commercial, land reform inclusive of restitution projects namely trusts and CPAs, and small-scale growers with less than 5 ha of land in terms of production. There would also be sugarcane stakeholders which are namely the millers such as Tongaat Hulett Sugar,

Umfolozi Sugar Mill, Gledhow Sugar Company, RCL Sugar, UCL, Illovo Sugar and grower associations such as South African Cane Growers association and South African Farmers Development Association and the Department of Agriculture Land Reform and Rural Development. The sugarcane growers and sugar industry stakeholders in the Shukela Training Centre (Pty) Ltd are fifty in total. The simple random sampling method was used in this study.

A total of forty questionnaires were distributed through the STC database in KZN, and the researcher was able to gather twenty-eight completed forms from the respondents, mostly due to time constraints. The sample size was found from the sample table. The inclusion criteria was used in this study which attributes of subjects that are essential for their selection to participate. The inclusion criteria function removes the influence of specific confounding variables.

Required Sample Size [†]								
Population Size	Confidence = 95%				Confidence = 99%			
	Margin of Error				Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75

Figure 3.2: Sample Size Table

Participants	Population	Sample Size	Research Survey and Research Methods	
Commercial sugar can farm manager	11	9	6	Online Microsoft questionnaire via link
Sugar Farm Owner	8	6	4	Online Microsoft

				questionnaire via link
Grower association workers	3	3	2	Online Microsoft questionnaire via link
Miller association worker	7	6	4	Online Microsoft questionnaire via link
Commercial sugarcane farm worker	14	10	8	Online Microsoft questionnaire via link
Small-scale sugarcane farm worker	3	3	2	Online Microsoft questionnaire via link
Other	3	3	2	Online Microsoft questionnaire via link
	50	40	28 Surveys	

Table 3.1: Total population and the study sample size – Source 2022; STC database

3.4.2. Data Collection

Microsoft forms were used to create the survey in order to be able to collect the customers or growers feedback and the results are sent to excel for more additional analysis or grading. The data was collected through an online microsoft link questionnaire created by SASA's information technology office and the survey respondents were growers, millers, and stakeholders who filled in an online survey form. The form was circulated to forty growers through a link to access the web page but only twenty-eight responded. Professionals validated the survey before it was circulated.

3.4.3. The Acceptable Return Rates

The literature review suggests that 50% rate of return is good therefore a 60% and above is considered particularly good. When looking at the study forty questionnaires were distributed, and twenty-eight questionnaires were received back which is 70% and is an exceptionally good return.

3.5. Research Design and Methods

Research Design and data collection Sampling was conducted as it was impossible to include the entire research population in the study. The sampling involved selecting a few samples from the many samples to conduct empirical research that the sample was a representation of a form of trade-off between what was desired and attainable, more so in cases of statistical sampling rather than descriptive sampling. In quantitative research, the sample was taken inferences are made concerning the rest of the population based on the sample. Sampling was done with the purpose to identify the respondents where the researcher obtained the names given by personnel that authorized (Carter, 2018).

The sampling decision was simplified through using the generalized scientific guideline table with the sample sizes for the given population. When utilizing the given generalized scientific table for a population of two hundred sugarcane growers the forty were chosen. The sample size chosen from the given table generalized sample findings back to the parameters of the population.

The Systematic and Simple random sampling technique were both employed in sampling respondents for the study. The respondents were randomly selected from sugarcane growers.

3.5.1. Description and Purpose

The administration of a survey was the final stage of the collection of the data. Therefore, a timetable was created to identify the specific task to be completed. It was suggested that there would be a follow-up email sent to the respondents as a reminder to complete the questionnaire. The questionnaire, letter of consent, and cover letter were created and sent via email to all the respondents. Each respondent would receive a hyperlink to the microsoft questionnaire via email. The data was then be analyzed (Creswell, 2018).

3.5.2. Research Methodology

This research was investigating the impact of the training which is offered by the service provider Shukela Training Centre (Pty) Ltd to the sugarcane growers and the sugar industry stakeholders whilst focusing as well on the benefit obtained, the level of knowledge acquired, skills and the ability which is obtained by the sugarcane growers through the training. The objectives of the research were based on identifying the level of productivity, improving training, transferring from the training to the workplace, and the benefits of the improvement of the sugarcane growers. (Creswell, 2018). The quantitative research method was used on an online survey, and this was chosen as a methodological method. The sample number was 40 and 10% of the sample was taken which is 2.8 which rounded off is three. SPSS was focusing on the scale rounding off according to it in terms of reliability thus analyzing the scale.

3.5.3. Pilot Study - The construction of the instrument

The method that was applied for data collection was questionnaires. The questionnaires were sent by email online to all the industry stakeholders and the growers. There were three sets (3) of questionnaires that were distributed to the respondents such as the pre-test, reaction, and post-test. The pre-test was distributed to those trainees before was attended. The reaction questionnaires were distributed after the course was completed. The post-test questionnaire was then emailed after 3 to 6 months after completing the course. The second method utilized in the study will be semi-structured interviews. These interviews were conducted with twenty-eight respondents.

The telephone interviews assisted them to answer the question in simple language. An informed interview was conducted during the telephonic interviews. The final method was farm visits and observation. In the approach, the researcher was also able to visit several certain farms owned by the sugarcane growers who were the respondents. The visit assisted in gaining information and observing the extent of knowledge and skills applied to the farm practice. This shows you can use the questionnaire check for reliability by Cronbach Alpha.

3.5.4. The approach used for the study (quantitative methods)

This study employed the quantitative approach. This is a method that involved the measurement of variables utilizing a numerical system and analyzed these measurements utilizing the statistical models and being able to report the relationships and the associations among the variables that were studied. These variables could be evaluated scores and measurements of the times of reaction. The true reason behind the data collection which is quantitative was to

understand, describe and predict the nature of a phenomenon by being able to develop the models and theories. The quantitative research techniques included experiments and surveys as well. It is critical during this type of research that one defines the research question before you are choosing the theoretical approach to the research. This method depended on data collection so that the problem may be resolved and analyzed (Churchill et al., 2021).

There were two types of quantitative research these are namely experimental research - This method will assist in determining the cause-and-effect type of relationships by manipulation of the independent variables. The non-experimental research - This method is where the independent variables were not manipulated and have no random assignment to groups. (Churchill et al., 2021) Ways in which one planned a quantitative research exercise was involving identifying the research problem, identifying the research questions, reviewing the literature that is existing, and then finally developing a research plan. There were many advantages of the quantitative research methods which included the provision of a conclusive answer to the research questions, and the usually trustworthy results which had been collected and analyzed, these results could also be generalized to an entire target of the group. There were however limitations to this method as well such as that it did not account for people's thoughts and perceptions and did not explore the why and how of the phenomenon. (Churchill et al., 2021).

There are numerous types of quantitative methods that one could utilize such as questionnaires with closed-ended and open-ended questions. The advantages of the questionnaires involved being less time-consuming, and fair and could be the best cost-effective option for gathering data from a large sample. The limitations however were lacking depth, providing limited information, respondents losing interest or quitting the questionnaire and the respondents not understanding all the questions which may have led to inaccurate responses. Quantitative research depended on the numerical data being able to provide information to answer the research questions. The quantitative methods were the best tools that could be utilized in problem identification or phenomenon, its spread, and changing over time. After the problem was identified quantitative research could be utilized to produce a solution that was trustworthy and identified utilizing data collected using standardized techniques (Churchill et al., 2021).

In any business and management research, one needs to do a study involving numerical data and or have data that could assist in quantifying so that you may find an answer to the research questions and be able to meet one's objectives. To do this study, the researcher utilized

quantitative methods. The quantitative methods would involve collecting quantitative data when responding to the research questions. This included methods entailing data collection, data analysis, and the interpretation of both quantitative and qualitative data. The quantitative methods were chosen in this study due to their strength in assessing the quantitative research and minimizing the limitations of the method. This showed an entire understanding of research problems and questions (Creswell, 2018).

The quantitative method assisted the researcher to gain more data from the respondents since some of them lived too far away and could not be reached within the research period and were not able to complete the questionnaire due to their low level of literacy. This quantitative data ranged from primary and secondary data and would range from the simple counts known as the frequency of the occurrences of advertising slogans to complex data such as test scores, prices, or the costs of rental. The data analyzed and interpreted for it to be useful. Doing quantitative analysis would assist in this process. The quantitative analysis ranged from creating simple tables or graphs which showed the frequency of occurrence and the ability to utilize statistics such as indices to allow comparisons by establishing statistical relationships between variables to complex statistical modeling. Before analyzing the data quantitatively, one ensured that the data was quantified or quantifiable and could be transformed into quantitative data, which is data that could be recorded as numbers and could be analyzed quantitatively. This, therefore, meant that before analysis began, we would be able to classify other forms of data and gave each category a numerical code (Saunders et al., 2019).

In the analysis of quantitative data calculations and diagrams, drawings were done through the analysis software which ranged from spreadsheets such as excel to more advanced data management and statistical analysis software such as SAS, Stata, and IBM SPSS Statistics. One also utilized a more specialized survey design and analysis online software such as Qualtrics Research CORE and the Survey monkey statistical shareware such as R Project for Statistical Computing or the analysis of content and text mining software. (Saunders et al., 2019).

3.5.5. The informed consent

When the participants gave informed consent, this meant that they understood what they agreed to and accepted what was asked of them and were comfortable with the purpose of the research and the intended use of the data that they were providing. The most transparent manner to achieve this was through preparing a formal informed consent form which could be read,

understood, and signed off by all the research participants or their parents and guardians (Carter, 2018).

There was a consent form that indicated the study to be undertaken, the aim of the study, its objective, how it was done, and the contact details of the researcher. It indicated that the study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee with the approval number. The form indicated that the participation of the respondent in this project was voluntary, and the participant refused to engage or withdraw from the project at any time with no consequence that are negative. It will also state that there would be no gain which is monetary from participating in the survey. Confidentiality and anonymity of records identifying the participant were maintained (Carter, 2018) (Carter, 2018)

3.5.6. Ethical clearance

This involved the principles, values, and standards which guided the conduct of individual researchers in many areas which included the design and implementation of the studies and reporting of the findings. The research ethics were able to stipulate data collection by human participants which were evaluated by the institutional review boards. When doing the research study, it was extremely critical to ensure that ethical issues were considered. Prior commencement of the study permission was sought with regards to the gatekeeper's letter from the General Manager of Shukela Training Centre (Pty) Ltd and the University of KwaZulu Natal through presenting the study proposed and the questionnaire as a tool that was utilized. Great measures were implemented to ensure the protection of the privacy of the respondents to prevent issues such as social stigmatization and victimization. A consent form was distributed to the respondent for acknowledgment. The consent in the study participation was voluntary (Creswell, 2018).

The research proposal was submitted to the University of KwaZulu Natal Ethics committee for assessment. The true concept of the assessment was based on participation, transparency, professionalism, and accountability which was adopted by the researcher when collaborating with the participants. Before the participants participated in the research the consent form was given. The consent form explained in depth to the participants what the study entailed, the purpose of the study, and for what the findings were to be utilized. It was further emphasized that the research was voluntary, and that the participant would be anonymous and would be

maintained using fictitious names and that confidentiality of the information supplied would be throughout the study.

3.5.7. Validity and reliability

Validity was based on the strengths in qualitative research which were based on the strengths experienced in qualitative research linked to determining whether the findings were accurate from the researcher's point of view, the reader, and the participants as well. Validity was addressed through trustworthiness, authenticity, and credibility (Creswell, 2018).

To answer the validity, question the below questions were answered:

- History- there was no historical threat to the validity of this research.
- Testing- all participants were made aware that data from this research is confidential and that their answers will not influence them in any way.
- Mortality- all participants were made aware that they were free to drop out at any time during this survey.

Reliability was informed by the researchers' approaches concerning consistency or stability.

Often the following questions were to determine validity:

- "Were the same measures used in this survey produce the same results on other occasions?"
- "Were similar observations be reached by other observers?"
- "Was there transparency in how deductions were made from the raw data?"

The threats to validity tended to raise questions about the experimenter's ability in concluding the manipulated variables(s) of the interesting outcome and no other factors. The experimental researchers needed to identify the validity of their experiments and would design them so that the threats would not arise or be minimized. The two types of threats to validity were (a) internal threats (b) external threats (Creswell, 2018).

Internal validity threats were experimental procedures, treatments, or experiences of the participants that threatened the researcher's ability to be able to draw correct inferences from the data about the population in an experiment. These would involve history, maturation, regression, selection, mortality, diffusion of the treatment, compensation, testing, and instrumentation (Maslakçi and Sürücü, 2020).

When inferences that are incorrect are drawn from the data sample to other people, settings, or the past and future situations, this will lead to what is called threats of external validity. Due to certain characteristics of individuals chosen for the sample, a setting that is unique and experimental then the threats will arise. (Creswell, 2018)

3.5.8. Cronbach Alpha Test for Validity

Bujang et al. (2018) mentioned that Cronbach's alpha is a measure of the internal consistency or reliability between several items, measurements, or ratings. The reality study is used mostly in questionnaire development studies and questionnaire validation studies. This is a review of the sample size for Cronbach's Alpha Test. The Cronbach's Alpha in this study was used as a measure of the internal consistency or reliability a few times, measurements, or ratings. It measured the reliability of the response to a questionnaire which is an instrumentation or a rating that will be used to evaluate subjects indicating the tool's stability. The value of Cronbach's alpha will range from zero to one with the higher values showing the items which measure the same dimensions. If Cronbach's alpha is low (that is near zero) therefore this will mean that some or all the items will not be measured in the same dimension. The Cronbach Alpha stability of the questionnaire will measure the latest variables. (Bujang et al., 2018)

Table 4. The Classification of Cronbach's Alpha Coefficient

Cronbach's Alpha Coefficient	Interpretation of Cronbach's Alpha Coefficient
$\geq 0,9$	The internal consistency of the scale is high,
$0,7 \leq \alpha < 0,9$	The scale has internal consistency,
$0,6 \leq \alpha < 0,7$	The internal consistency of the scale is acceptable,
$0,5 \leq \alpha < 0,6$	The internal consistency of the scale is weak,
$\alpha \leq 0,5$	The scale has no internal consistency.

Figure 3.3: The Classification of Cronbach's Alpha Coefficient

Table 1: Cronbach's Alpha Statistics (reliability analysis)

Customer Satisfaction	Cronbach's Alpha
Customer Training Satisfaction 1	Cronbach's Alpha = 0.794 (has internal consistency)
Customer Training Satisfaction 2	Cronbach's Alpha = 0.745 (has internal consistency)
Customer Training Satisfaction 3	Cronbach's Alpha = 0.709 (has internal consistency)
Combined analysis	Cronbach's Alpha = 0.749 (has internal consistency)

Table 3.2: Source: Own survey computed from SPSS

The statical value of the questionnaire Cronbach's Alpha of this study for all customer satisfaction (combined analysis) was 0,749 with Customer Satisfaction 1, Customer Satisfaction 2, and Customer Satisfaction 3 having a value of 0,794, 0,745 and 0,704, respectively. For the 15, 15, and 15 respective statements (items) in the questionnaire regarding respondent perception on customer service of the industry members and sugarcane growers. Cronbach's alpha statistics indicate that the items have high alpha percentage. The results show the value. With regards to satisfaction as per table above there was no significant difference in responses this can be attributed. This shows you can use the questionnaire using Cronbach Alpha.

3.6. Data analysis

Descriptive statistics such as frequency and percentages was utilized to analyze all the data retrieved from the study. The coded results were first imputed on an Excel spreadsheet and then further transferred to the Statistical Packages for Social Sciences (SPSS) for analysis and all results were presented with the aid of frequency and percentage distribution tables. (Oduwole et.al., 2022)

The data was first evaluated for normality and then a parametric test was done through SPSS. The questionnaire was the primary tool that was utilized in this research to collect data by distributing it via emails to sugarcane growers, millers, and other stakeholders. The data obtained from the respondents were analyzed using the SPSS package, version 21.0. The results

were presented as descriptive statistics by graphs, cross-tabulations, and other figures for the quantitative data that was collected.

3.7. Conclusions

The study was administered by a questionnaire and only twenty-eight respondents were obtained from the population of forty sugarcane growers and stakeholders under the Shukela Training Centre (Pty) Ltd. To ensure that there was ambiguity the questionnaire was pretested. Using the SPSS software package data was analyzed. The methods applied on this study were valid and dependable to aid for relevant data collection, In the following chapter data will be presented and analyzed.

Chapter 4: Data presentation and analysis

4.1. Introduction

The focus of the chapter will be the results from the research study questionnaire when collecting data from the participants a questionnaire was utilised as a tool, to collect information from the sugar industry among stakeholders and sugarcane growers. Through the usage of SPSS package, version 21,1, the data will be analysed. The achieved results will be presented as descriptive statistics using cross-tabulation, graphics as well as other figures for data which is quantitative which has been collected.

4.2. The Sample

Forty forms were emailed to grower participants along with sugar industry stakeholders, but only twenty-eight surveys were returned.

4.3. The Research Instrument

The objective of this training assessment is to gain insight from industry members and growers who have interacted with the training offered by the Shukela Training Centre (STC). The assessment aims to get feedback on the strengths and weaknesses of training courses offered by STC, the extent to which they are meeting growers' needs, and to explore alternatives.

The views of industry Associations (SACGA, SAFDA, and SASMA), individual milling companies, growers, and learners are critical to SASA's intention of providing relevant training to the benefit of all stakeholders. They will all participate in this survey.

The questionnaire comprised thirty-eight questions, which is long. The questionnaire has been presented in five sections

Section A: The Biographical Data

Section B: To establish whether the respondents had attended the Agricultural Training at Shukela Training Centre (Pty) Ltd

Section C: To determine whether the training met the learners' expectations

Section D: To find an indication of whether the credit-bearing courses were preferable to learners versus the current skills courses

Section E: To explore ways in which the agricultural training offerings could be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC)

4.4. Reliability Statistics

Reliability and validity tend to be extremely critical in research. This entails utilizing an instrument describing the established validity of the scores which are obtained from the past use of the instrument. This meant that one would report efforts by the authors to be able to establish validity in the quantitative research and whether one can be able to draw meaningful and useful inferences from the scores on the instruments. Validity is distinguished in three ways such as a) the content validity b) the predictive or the concurrent validity c) the construct validity which is the objective in the validity. The reliability of the scores refers to the consistency or the repeatability of the instrument. The most critical form of reliability for several instruments is the instruments' internal consistency, which is the degree to which sets of items on an instrument may tend to behave the same way. This is vital since your instrument scale items must be assessing the same intercorrelations. When one modifies an instrument or combines instruments in a study, the original validity and reliability may tend not to hold for the new instrument and becomes critical to be able to establish the validity and reliability during the data analysis (Creswell, 2018).

4.5. Section A: The Biographical data of the Participants

The focus considering the demographics of the participants was mostly the gender, age, the mill which they deliver to and the occupation of the participants in the sugar industry. The participants responded with the information required to compose participants according to their gender and age.

4.5.1. The age of the participants

The increasing age of the farmworkers and the sugarcane growers in the agricultural sector tends to also affect agricultural production and there is an intensity issue. The age affects both the quality and quantity on the agricultural farmworkers and production. This can tend to cause issues when agricultural production expands and the production patterns as well. (Saiyut et al., 2019)

As per graph below the age of the participants ranged from 26 to 60 years of age, which meant that most of the participants constituted of older people. The average age of the growers was

above 26 years of age. The table below shows that the highest proportion of growers were between ages 31 to 35 and 41 to 50 years the others were between 36 to 40 and 21,4%. The youth constituted a low percentage of 26 to 30% at 7% and other years of age were 51 to 60 years constituting of 14,9%. This shows that youth often do not participate in sugarcane production and must start being more involved in sugarcane production to ensure long-term sustainability in sugarcane production and the industry. Adeyaniu (2021) mentioned that the youth are often lacking in finance for training and often lack mentorship and information hence they require funding, mentorship, and timely information. This is a concern as more youth must be incorporated into farming through successional planning as they possess the energy and innovation to fully implement the skills they acquire from the training programmes. (Oduwole et.al, 2022)

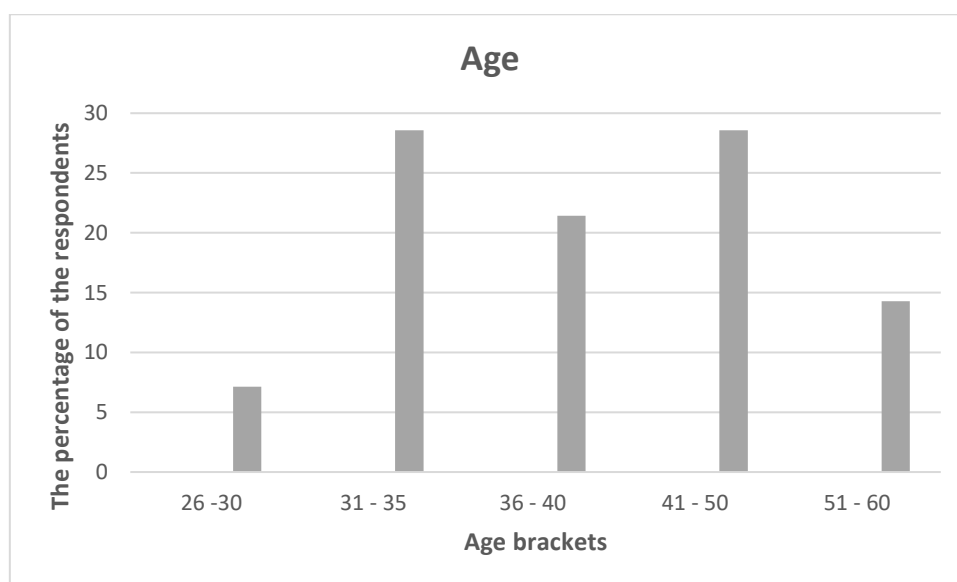


Figure 4.1: The age of the participants

4.5.2. The gender of the participants

The women tend to play an extensive role in agricultural production and tend to be the majority as farmworkers. In Agriculture there tends to be more agricultural women activity versus the men. (Leavens et al, 2019)

The results are showing that 50 % are male whilst 50 % are female. The growers are equally dominant. The males, however, do play an extremely critical role in the community developed. The previous studies have shown that in agricultural training, the impact on women has been substantial (Rasanjali et.al., 2021)

According to Oduwole et.al, 2022, gender plays a vital role in access to productive resources such as land, improved varieties, fertilizers, farm equipment, labor, training, and information by smallholder farmers. This results in the difference in agricultural productivity between male and female smallholder farmers.

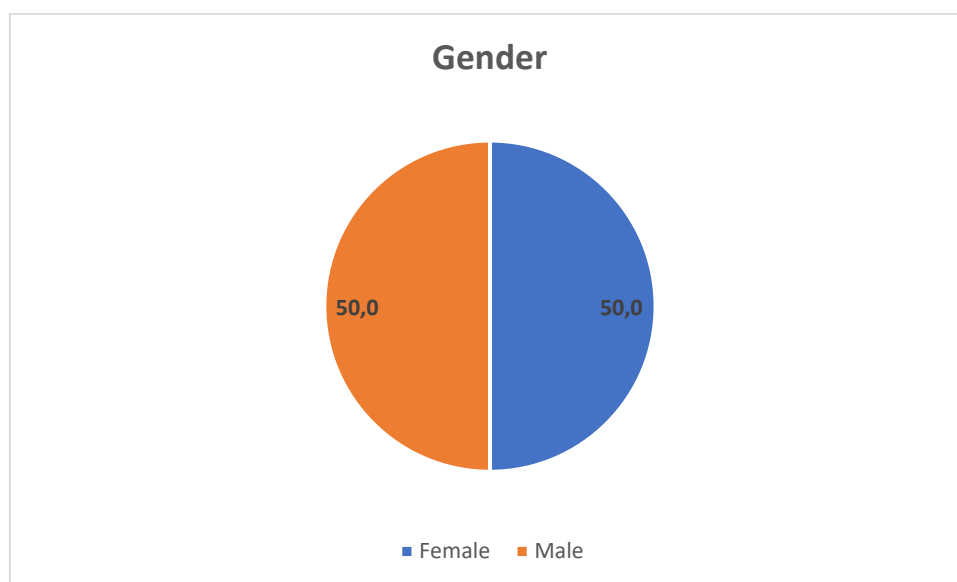


Figure 4.2: The gender of the participants

4.6. The mill areas

The results are showing that there were 35,7% respondents were from the Umfolozi Mill area and 21,4% respondents were from Maidstone, and 7,1 % respondents were from mill areas such as Eston, Gledhow, Felixton, Noodsburg, Sezela, and other mill areas participated in the survey. As per the study, Mpumalanga milling companies did not participate in the study. A few mill areas participated in the study with the exclusion of Darnall and Umzimkhulu since in the 2020/21 sugar season which began on the 1st of April has been hit by the closure of two large-scale sugar mills, Darnall Sugar Mill and Umzimkulu Sugar Mill. (Jones et.al., 2021)

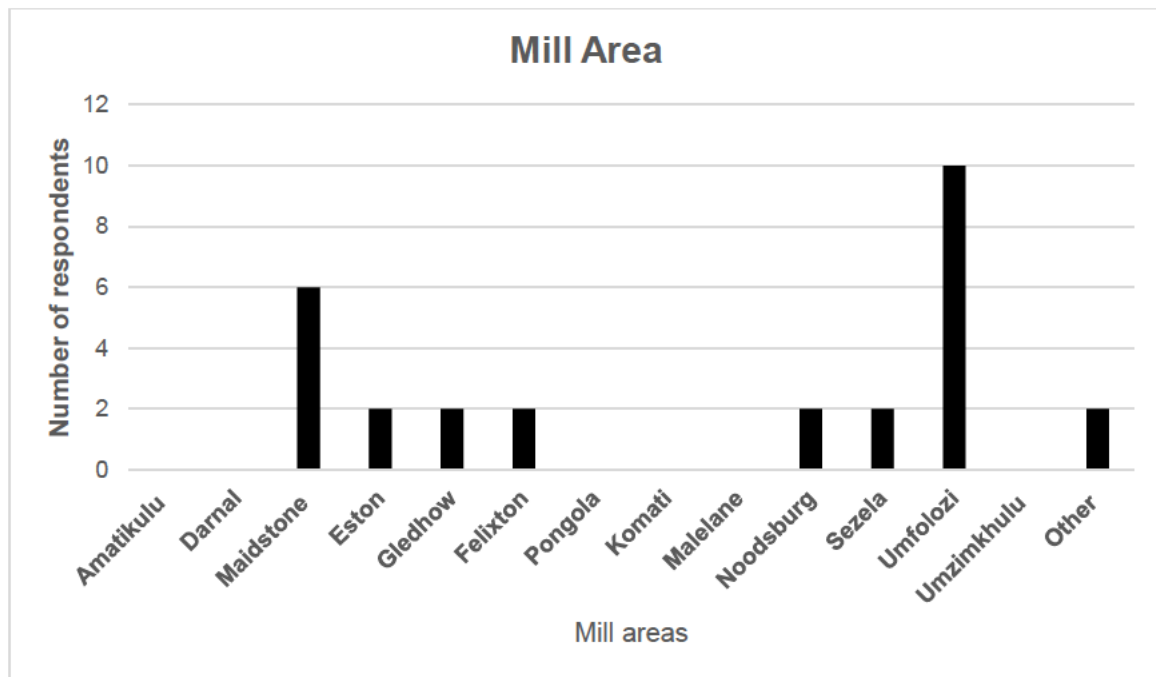


Figure 4.3: Mill areas

4.7. The race

The table below is showing that there are 35,7% of African respondents, 28,6% white respondent, and 11% Indian respondents. These growers are ranging from small-scale growers, and commercial growers to land reform growers. The sugar industry has various growers. According to Ntshangase 2016, this breakdown is not surprising because there are more black commercial cane growers of african origin when compared to the black commercial growers of indian origin.

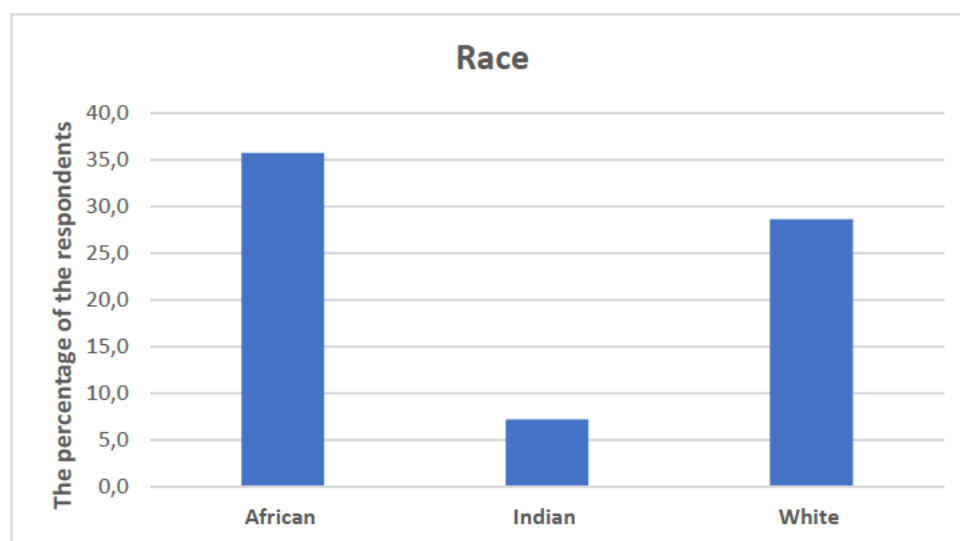


Figure 4.4: Race

4.8. The highest level of education

The role of education in agriculture is critical. Previous research has shown that for skills to improve and the knowledge of the farmer and agricultural employees one must analyse the actual situation and challenges of the agricultural education. To enable meeting the agricultural needs, the system of education must focus on changing the needs of the agricultural system (Komives et al., 2019).

According to the results, 78,6% were mostly tertiary-based education, and the other 14,3 % were matriculated. This is because the survey was answered by respondents from many associations. This information is critical highlighting the respondents' responses which will be an accurate reflection of their opinions. According to Oduwale et.al, 2022 , the level of education of a farmer plays a significant role in improving the level of understanding of an individual, and consequently, their utilization of training. According to Waktole, (2020), farmer's training has been found to improve productivity among food crops farmers.

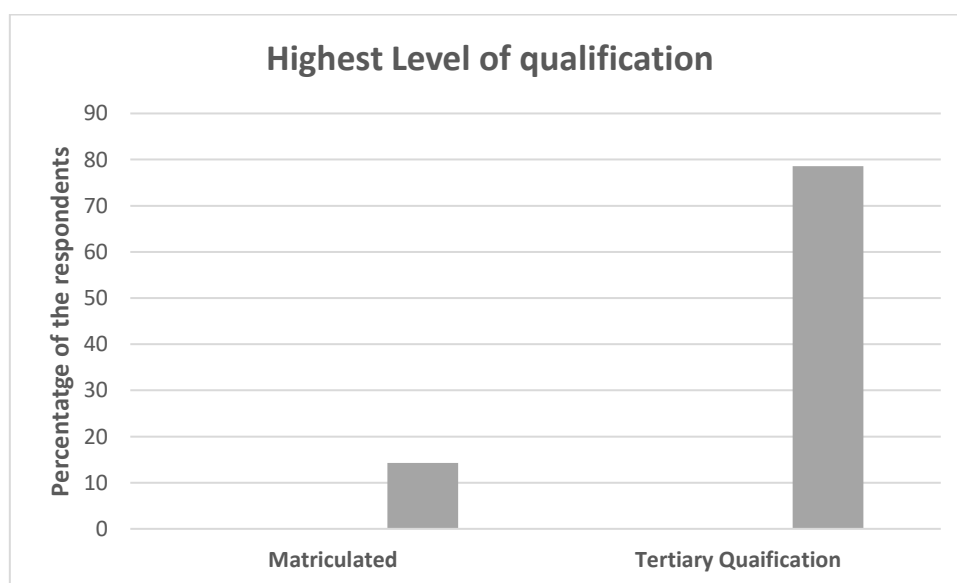


Figure 4.5: The highest level of qualification

4.9. The number of family members

The table is showing that 85,7% have dependents whilst 14,3% have no dependents. The table also shows that 43% of the dependents had two children and 21,4% have three children, 14,2% have four children, 7,14% have more than five children and 14,3% have no children. Sifundza

(2016) revealed that this raises the hope that very few farmers have the pressure of leaving their homes to seek employment opportunities to support the large number of dependants because of limited income obtained from small-scale cane farming. In contrast, a large family size can be an advantage in sugarcane farming, as some of the family members can perform operations on the family farm such as hand weeding, cane cutting and fertiliser application. This would reduce labour cost, thus reducing the costs of production.

Dependents	Frequency	Percent
Yes	24	85,7%
No	4	14,3%
Total	28	100%
If yes, how many	Frequency	Percent
0	4	14,3%
1	0	0
2	12	42,9%
3	6	21,4%
4	4	14,3%
5	0	0
More	2	7,1%
Total	28	100%

Table 4.1: The dependents – family members

4.10. Occupation of the participant

The results are showing that 28,6% of the participants constitutes of workers for commercial farms, and 21,4% of the participants constitutes of managers in a commercial sugarcane farm. It also shows that 14,3% of the participants constitutes of workers for miller associations and 7,1% work for small-scale owned cane farms, for grower associations, own a commercial farm and others. All the participants participate in sugarcane farming whether as a grower or a stakeholder.

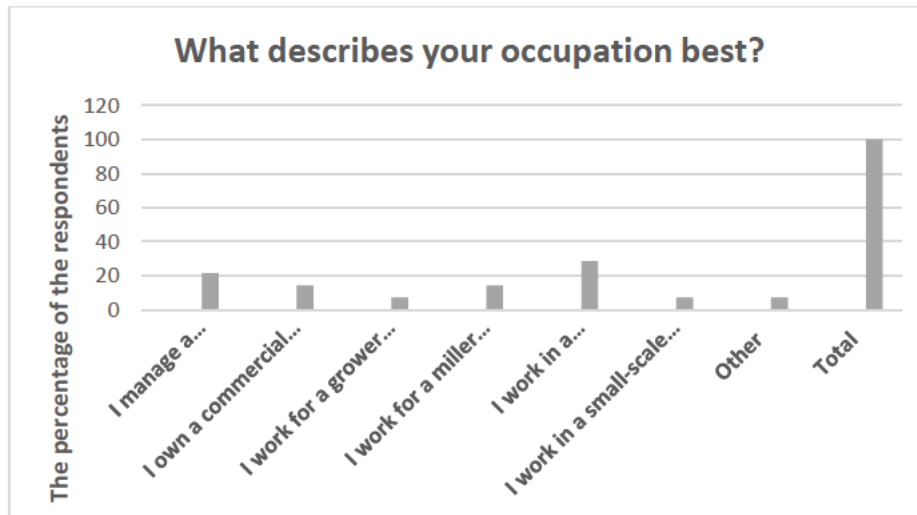


Figure 4.6: Best description of occupation

4.11. Section B: To establish whether the respondents have attended the Agricultural Training at Shukela Training Centre (Pty) Ltd

4.11.1. Attendance of the courses

The study showed that 50% of respondents attended at least one of the trainings and 28,6% attended two of the above trainings whilst 21,4 % of the respondents have attended three of the trainings. The information is showing that 21,4% of the participants attended the First Aid and the Arc Welding and Gas Cutting training which constituted of the highest attendance. The First Aid is a statutory training is growers must be legally compliant on their farms and must do this training and renew their certificates when they have expired. The Arc Welding and Gas Cutting is a mandatory training for all the workshop assistants to weld all the trailers and other equipment on the farm. The other 7,1% percent for attendance was for trainings such as the National Certificate in Plant Production, Elementary Tractor Mechanics, Cane Husbandry, Senior Supervisor and Implement Setting, and others which showed a lower demand. In general, all that answered the questions had infact attended the training at Shukela Training Centre.

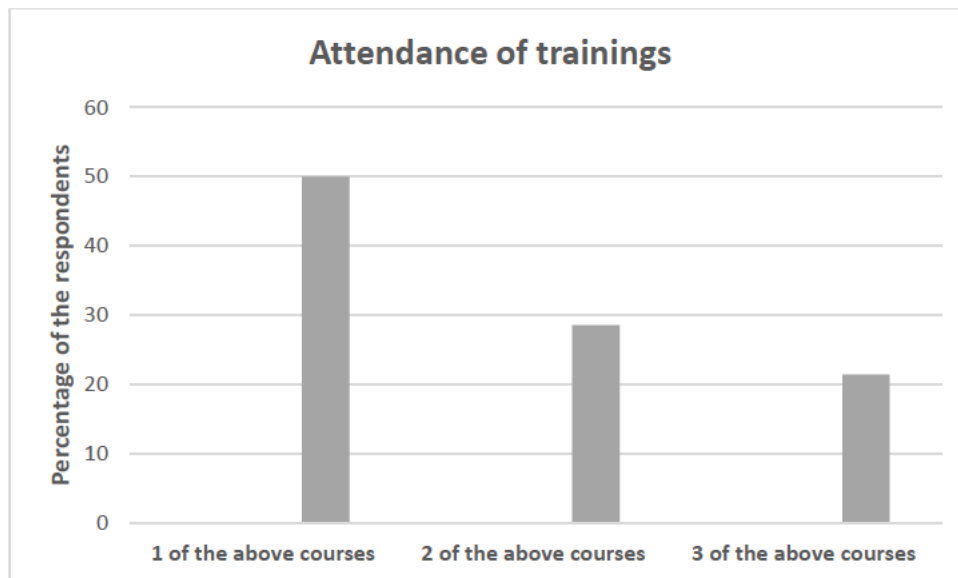


Figure 4.7: Attendance of trainings

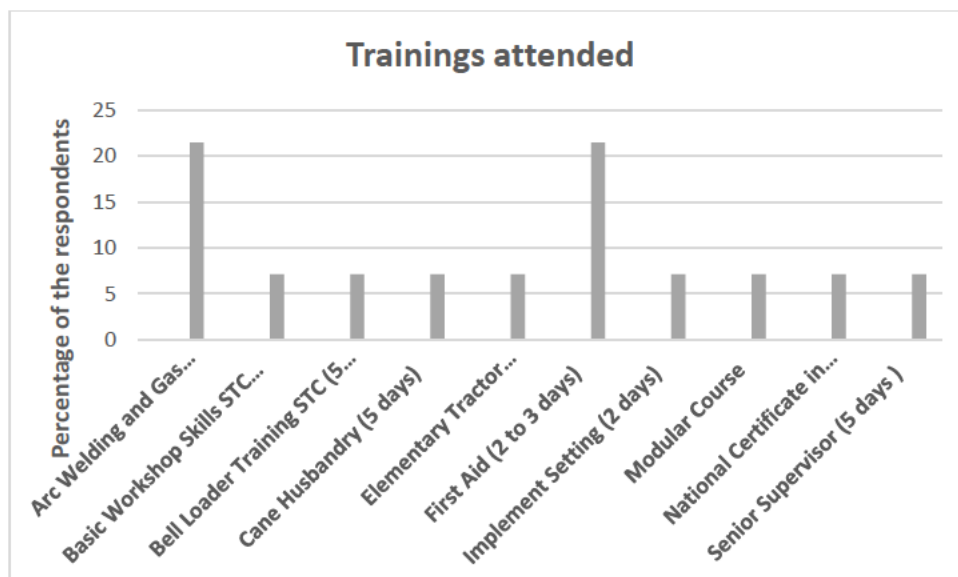


Figure 4.8: Trainings attended

4.12. The attendance of delegates

There were 78,6% of participants who attended training 1 to 3 years ago, 7,1% attended 3 to 5 years ago and 14,3% attended over 5 years ago. This showed that the higher percentage of the respondents had recently attended the courses.



Figure 4.9: The occurrence of training

4.12. Rating the levels of customer satisfaction 4.12.1. The trainer explained what we were supposed to learn and be able to do after the training

According to the table below when participants were asked whether the trainer explained what they were supposed to learn and be able to do after the training the respondents agreed strongly by 42,9%, agreed by 50% and others were neutral 7,1%. Which therefore means that in general the trainer did explain what the learners were supposed to learn and do after the training.

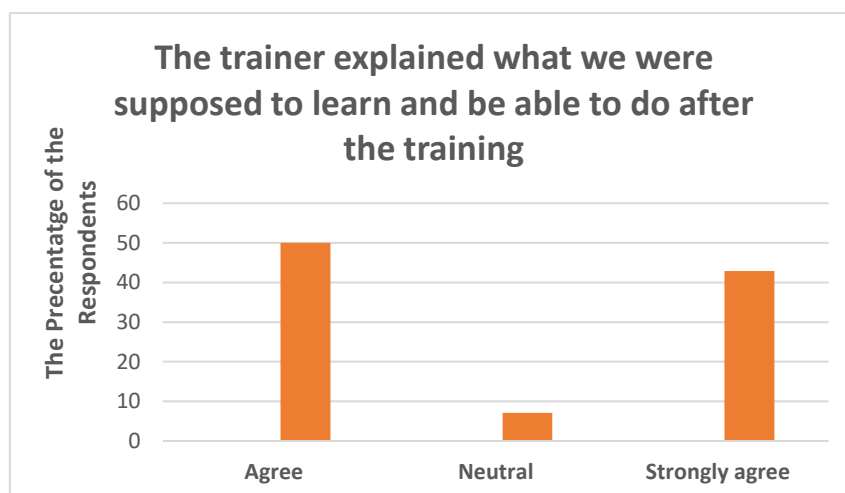


Figure 4.10: The explanation of what was learnt

4.12.2. The trainer encouraged us to talk, ask questions and/or do activities during training

According to the table below, when participants were asked whether the trainer encouraged them to talk, ask questions, and/or do activities during training they responded strongly agreeing 42,9%, others agreed 50%, and neutral 7,1%. This means that in overall they were encouraged to participate during the training which enhances their learning.

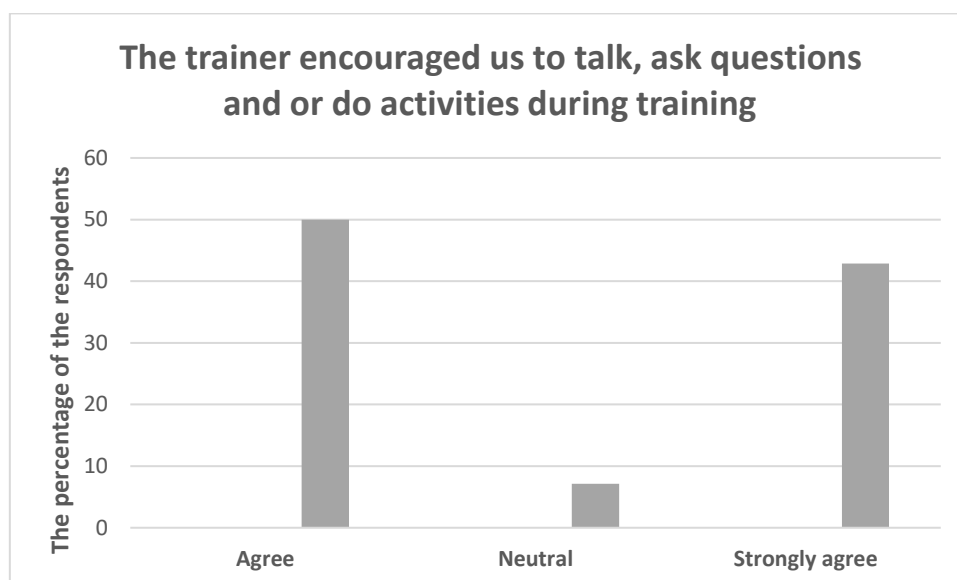


Figure 4.11: The trainer encouraging to talk and ask questions

4.12.3. I learnt a lot from the training provided

When participants were asked whether they learned a lot from the training provided 50% strongly agreed, 42,9% agreed and 7,1% disagreed with this statement. This therefore means that the content of STC trainings is in a good standard.

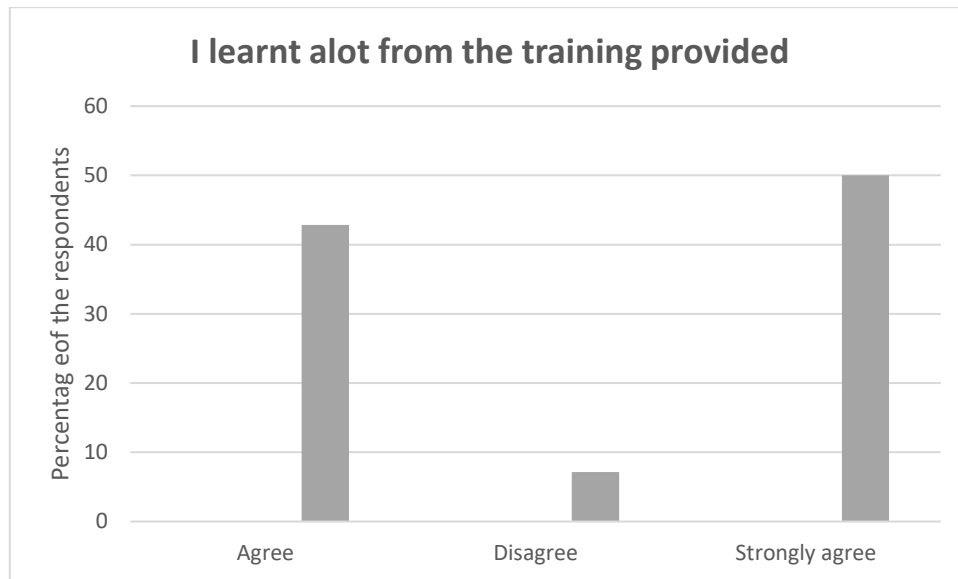


Figure: 4.12: Learning from the training provided

4.12.4. I found it easy to follow and understand what we were taught or trained on

When participants were asked whether they found it easy to follow and understand what they were taught or trained on 35,7% strongly agreed, 57,1% agreed and 7,1% were neutral. This means that the training manuals are readable for the learners.

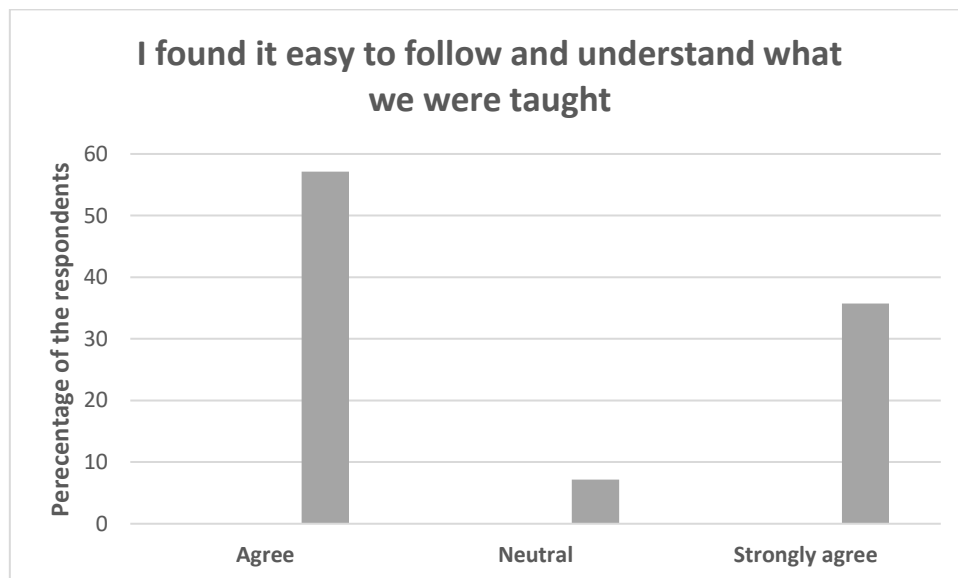


Figure 4.13: Finding it easy to follow and understand

4.12.5. I found the distributed learning materials helpful during and after training

When participants were asked whether they found the distributed learning materials helpful during and after training 35,7% strongly agreed, 57,1% agreed and those who were neutral were 7,1%. STC training manuals can be improved by the 7,1% of the neutral response.

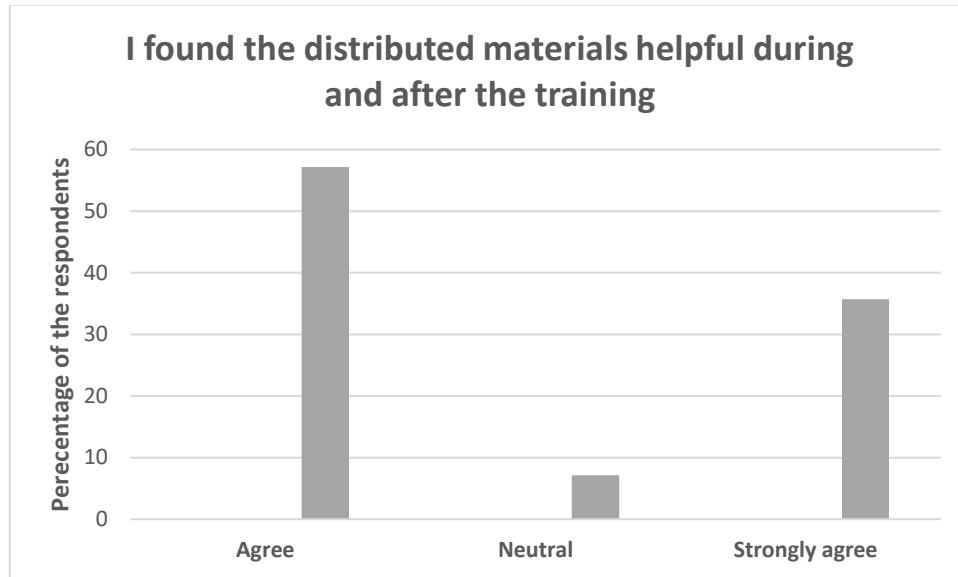


Figure 4.14: The helpfulness of training manuals

4.12.6. At my workplace I am now using the knowledge and skills that I was taught during training

When participants were asked whether they at their workplace are now using the knowledge and skills that they were taught during training 50% strongly agreed, 28,6% agreed and 21,4% were neutral. This is positive as higher percentage of the respondents are using the knowledge gained from the training.

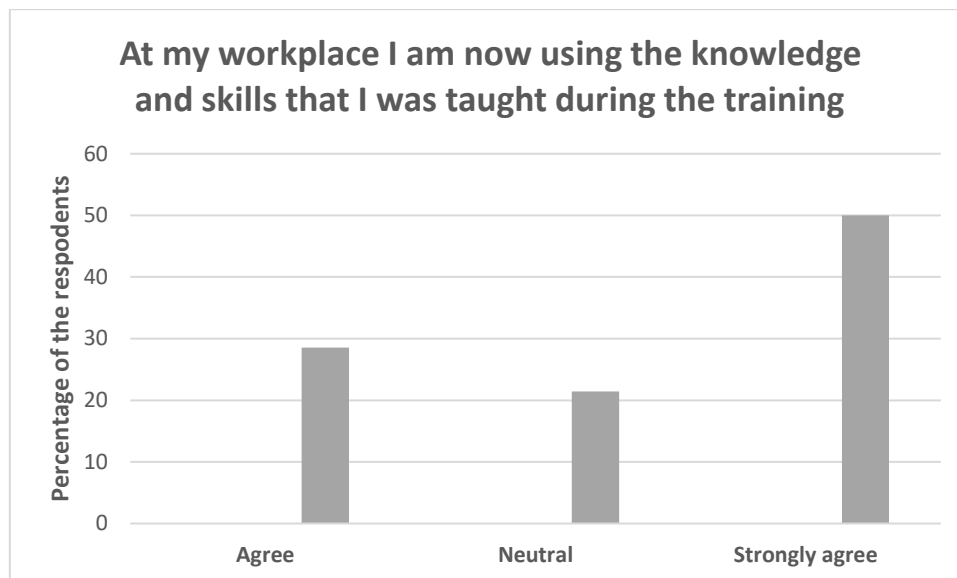


Figure 4.15: The utilization of skills taught during training in workplace

4.12.7. The trainers were knowledgeable about the training topics.

When participants were asked whether the trainers were knowledgeable about the training topics 42,9% strongly agreed, 50% agreed and 7,1% were neutral. This was a positive response from the respondents.

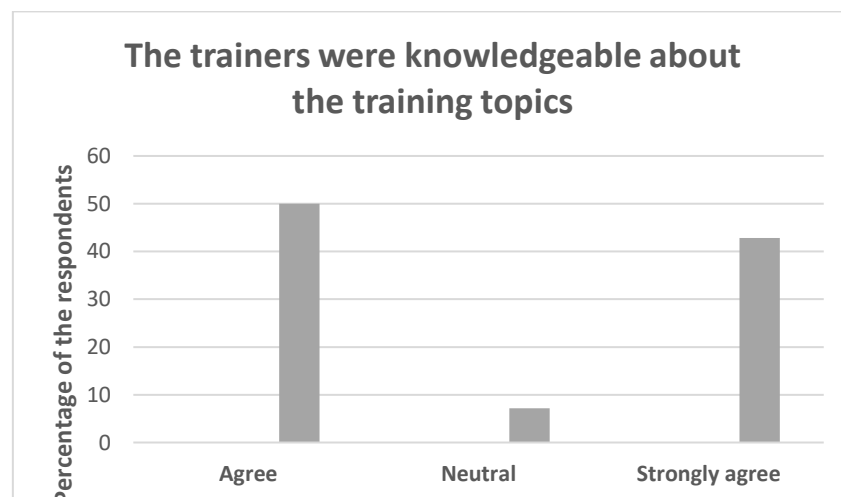


Figure 4.16: The trainers being knowledgeable about training topics

4.12.8. The trainers were always well prepared.

When participants were asked whether the trainers were always well prepared, they answered 42,9% strongly agreed, 50% agreed and 7,1% were neutral. This was a positive response from the respondents.

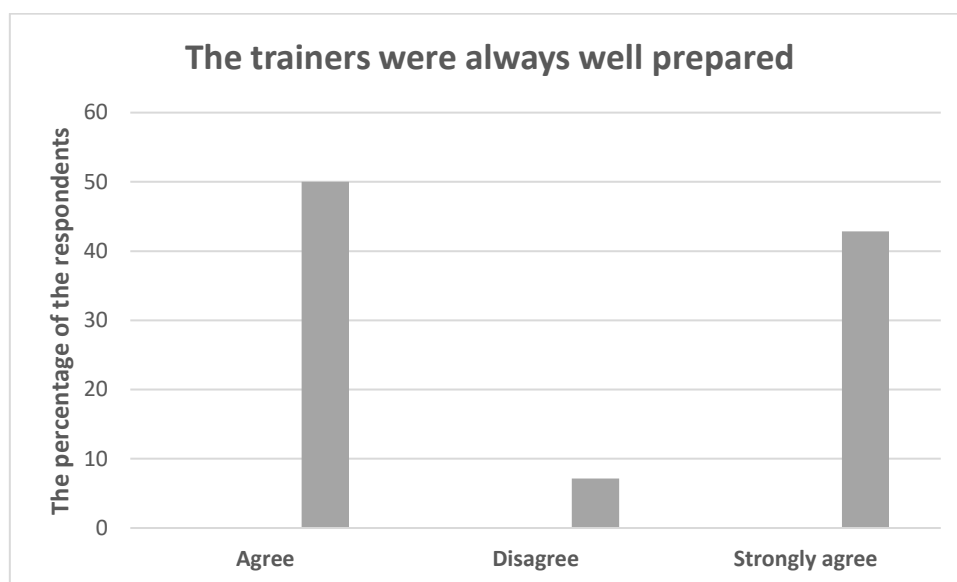


Figure 4.17: Trainers being prepared

4.12.9. At the end of the training, I had learnt what the trainer said we were supposed to learn

When participants were asked whether, at the end of the training, they had learned what the trainer said they were supposed to learn 42,9% strongly agreed, 50% agreed and 7,1% were neutral. This was a positive response.

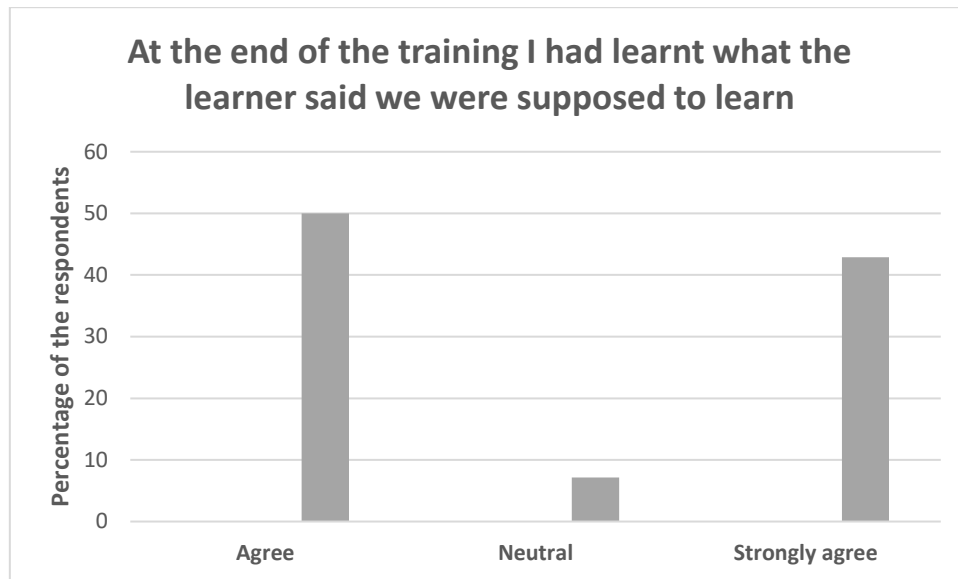


Figure 4.18: The objective of the training being at the end of training

4.12.10. The time allocated for the training was enough

When participants were asked whether the time allocated for the training was enough 35,7% strongly agreed, 50% agreed and 14,3% were neutral.

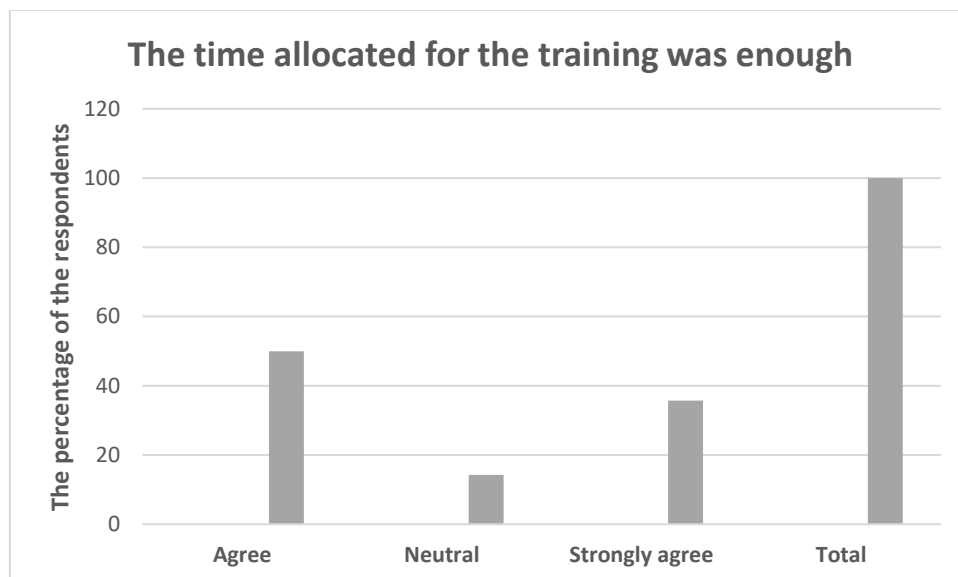


Figure 4.19: The adequate time being allocated

4.12.11. The training room was comfortable and the facilities I needed were available

When participants were asked whether the training room was comfortable and the facilities needed were available 35,7% strongly agreed, 50% agreed and 14,3% were neutral. This was a positive response.



Figure 4.20: The training room being comfortable and facilities available

4.12.12. The training was worth my time

When participants were asked whether the training was worth their time 42,9% strongly agreed, 50% agreed and 7,1% were neutral.



Figure 4.21: The training being worth the time

4.12.13. The accommodation was comfortable

When participants were asked whether the accommodation was comfortable 7,1% strongly agreed, 71,4% agreed and 21,4% were neutral. This was positive response.

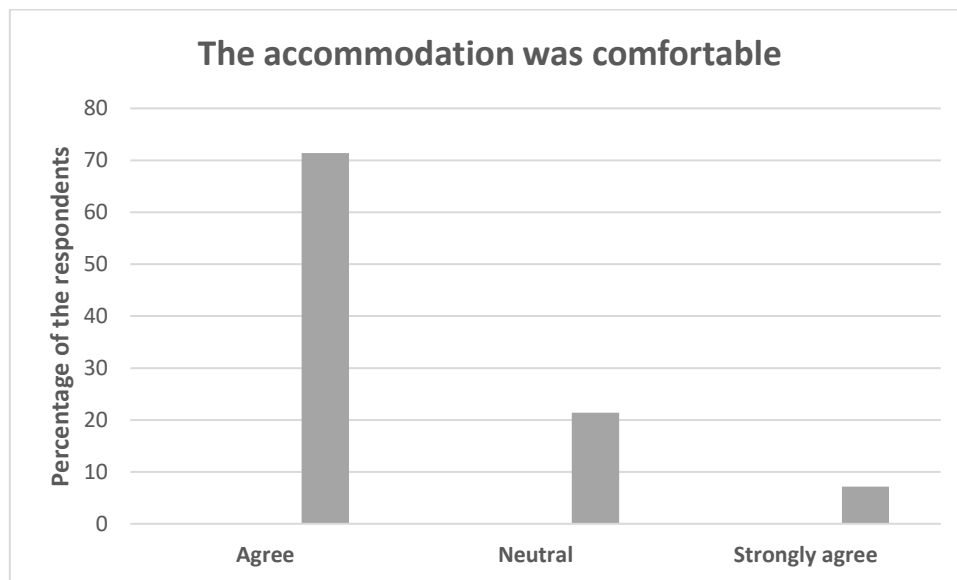


Figure 4.22: The accommodation being comfortable

4.12.14. I enjoyed the meals provided

When participants were asked whether they enjoyed the meals provided 78,6% agreed and 21,6% were neutral. This was a positive response.

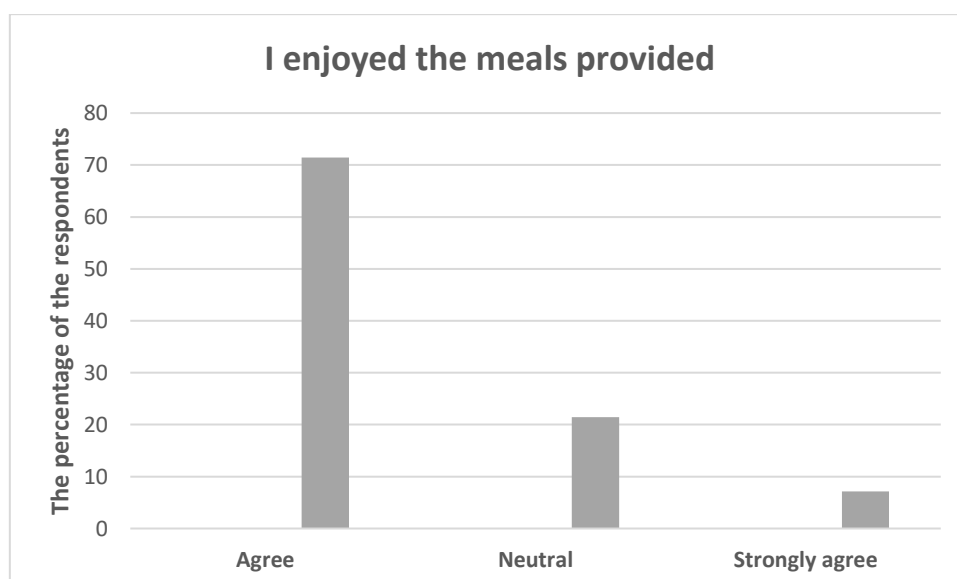


Figure 4.23: The learners enjoying the meals

4.12.14. It was easy for me to book for the training

When participants were asked whether it was easy for them to book for the training 35,7% strongly agreed, 57,1% agreed and 7,1% were neutral. This was a positive response.

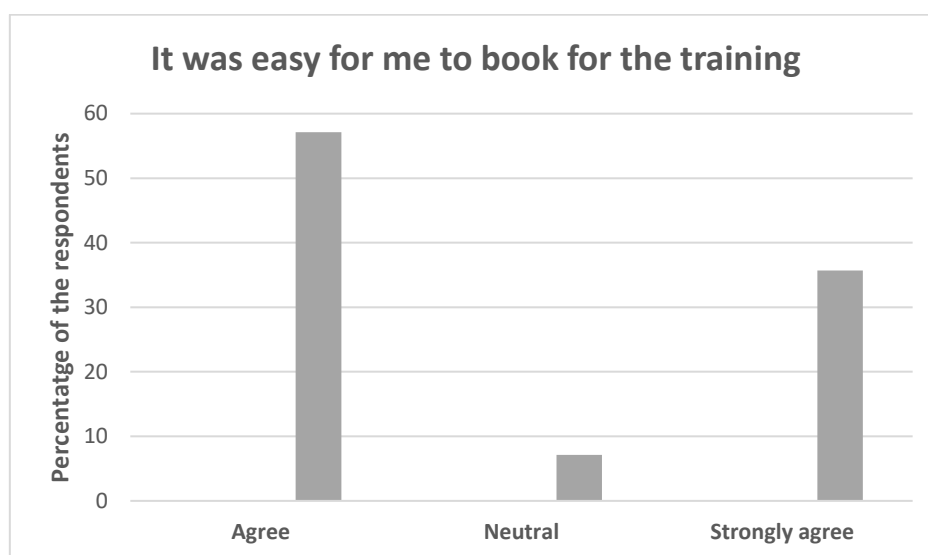


Figure 4.24: The ease in booking training

4.13. Section C: To determine whether the training met the learners' expectations

4.13.1. Preference of the training to be a credit-bearing unit training

A credit-bearing course is a short course or program where credits can be obtained through the form of unit standards or as part of a qualification. The credits are the number of hours that are recognized for the successful completion of a particular course or study. The course will usually contain more than 120 credits in general. All the participants in the survey preferred a credit-bearing course. The credit-bearing courses feature the standards of competency, assessment plans, moderation which is external and internal, quality council, SETA verification, the learner results being entered into NLD, earns regards rebates, BEE points, and the slow response to the market. The non-accredited training is often aligned to reputable strict industry standards. Non-accredited training also focuses on assessment tools, focused on solving problems, focused on learning needs, can be scarce and critical skills based, quickly responding to market needs, and is usually endorsed elsewhere by international and industry bodies (Hester and Kitmitto, 2020).

When the participants were asked whether they preferred the training to be credit-bearing or not 71,4% said "yes", 14,3% responded that it depends and 7,1% indicated "no" and 7,1% said that it does not matter. Most learners prefer credit-bearing, accredited training.

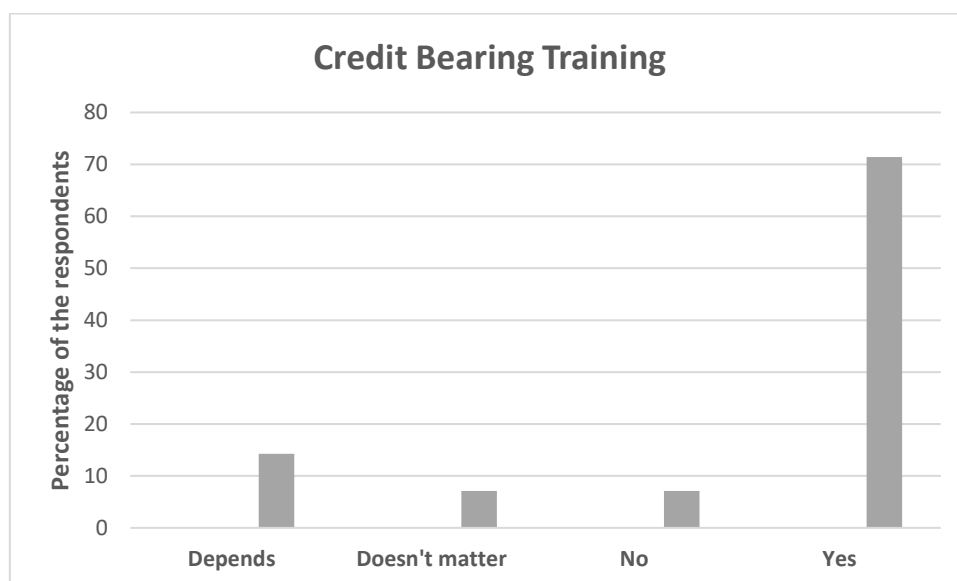


Figure 4.25: Credit-bearing training

Section E: To explore ways in which the agricultural training offerings can be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC).

4.14. Aspects of the training to be improved

Training in agriculture is a strategy to promote technologies that are innovative within farmers in countries are developing. The resource-conservation technologies encourage the sugarcane grower in the reduction of chemical fertilizer and pesticides in agricultural production. The developing countries know the importance of resource- conservation technology in development agriculture sustaining. (Yang et al., 2021).

The aspects of the training to be improved ranged from quality of training, duration of the training, meals, accommodation training equipment and other. When participants were enquired about which aspects of the training could be improved 28,6%percent responded the quality of the training, 14,3%% meals and the duration of the training 7,1%% accommodation and the training equipment. The results are brought concern on the quality of training which means that training manuals, training equipment must be upgraded. Facilitators also must be scored by the managers during the training and sent to training to enhance their training skills and knowledge. It is critical that trainers be benchmarked against one another.

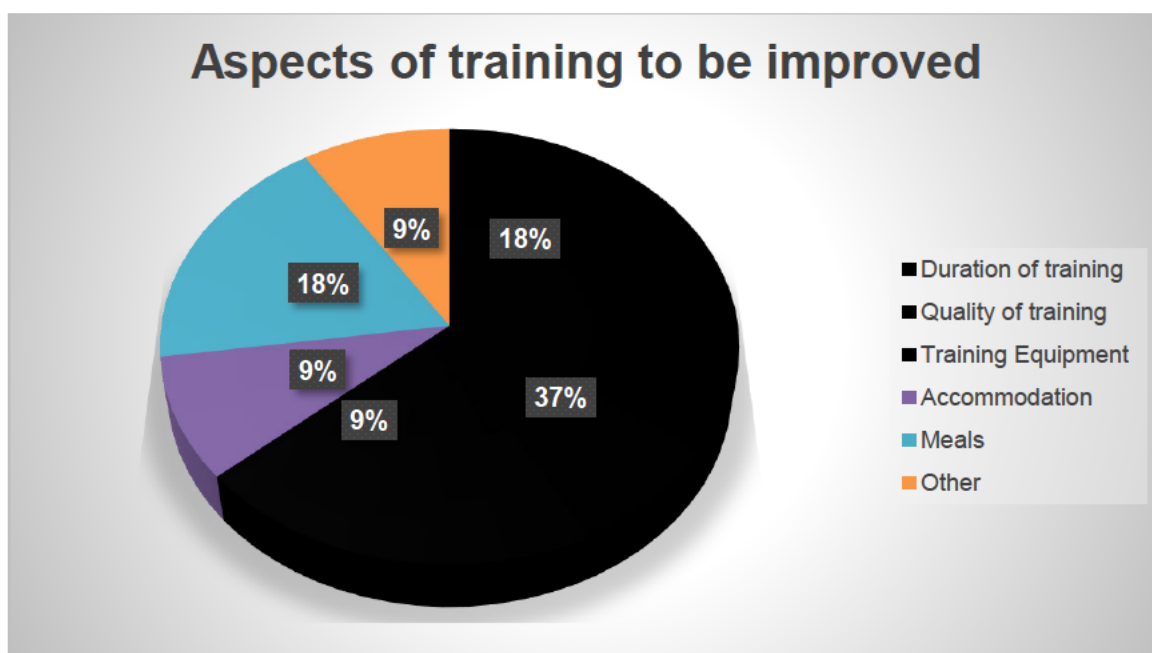


Figure 4.26: The aspects of training that can be improved

4.15. Significant improvement in the performance of farmworkers after training

Of the number of the participants 57,1% said "yes" they saw the improvement in the performance whilst 14,3% indicated that said it was too early to tell and 7,1% indicated "no", 7,1% said that they were uncertain. The impact from training is disappointing as it is lowers than anticipated which therefore means the training may be accompanied by a hand holding agreement after the training to monitor the progress of the growers from the training received.

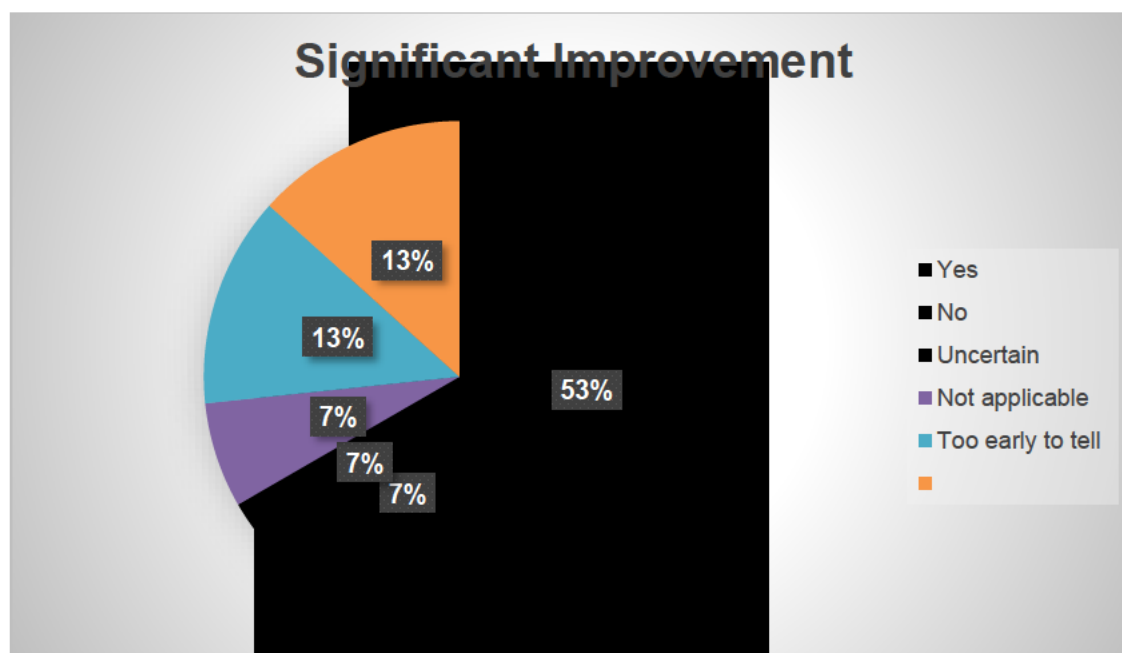


Figure 4.27: Significant Improvement

4.16. The relevance of the course on your work or business operations

The participants responded as follows, 92,9% indicated the course was relevant and 7,1% was neutral. This was a positive response. This means more research must be done to find which other trainings may be relevant to the 7,1% that is neutral.

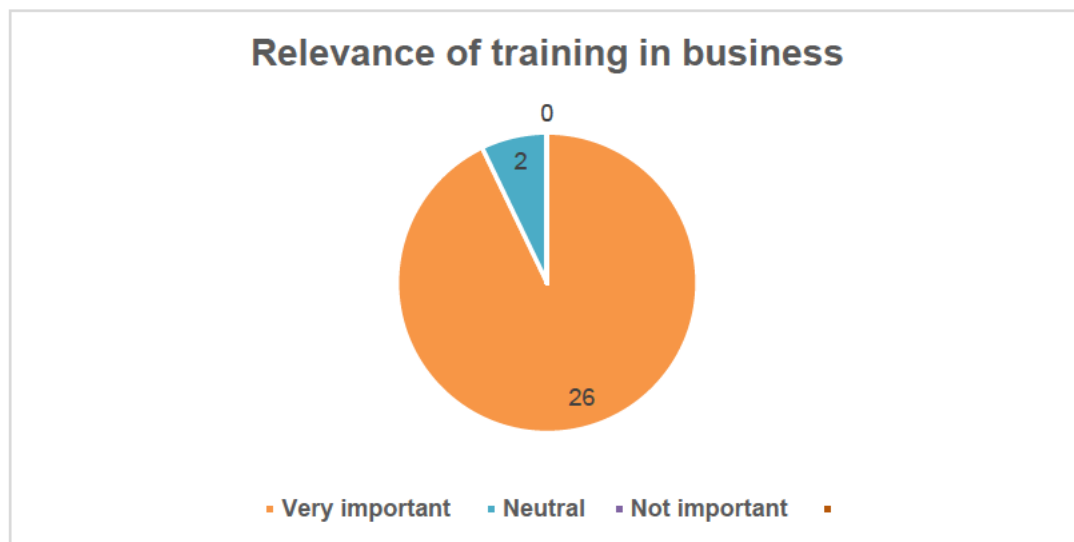


Figure 4.28: Relevance of training in a business

4.24. Discussion on the findings

4.24.1. Research Question 1: Did the learners attend agricultural training at Shukela Training Centre (Pty) Ltd or not?

According to the survey conducted 50% of the respondents have attended at least one of the pieces of training, 29% have attended at least two of the courses which mentioned and 21% have attended at least three of the courses mentioned. The majority according to the study have trained mostly in Arc Welding and Gas Cutting at Mtunzini and First Aid others have trained under Bell Loader training, Basic Workshop Skills, Elementary Tractor Mechanics, Cane Husbandry, National Certificate in Plant Production, Senior Supervisor, Implement Setting and other pieces of training. According to the survey, 79% of the respondents attended one to three years ago, 14% over 5 years ago, and 7% three to five years ago.

4.24.2. Research Question 2: Is training at STC effective or not?

When the respondents were asked whether the trainer explained what they were supposed to learn and be able to do after the training most of them agreed. When respondents were asked whether the trainer encouraged them to talk, ask questions, and/or do activities during training most of the respondents agreed. Most of the respondents strongly agreed on having learned a lot from the training provided by STC. The respondents found it easy to follow and understand what they were taught or trained on. Most of the respondents found the distributed learning materials helpful during and after training. At my workplace, they agreed to be now using the knowledge and skills that they were taught during training. The trainers were knowledgeable about the training topics, and this agreed with most of the respondents. The respondents responded on agreed on the instructors were well prepared for the training. The majority agreed that at the end of the training they had learned what the trainer said they were supposed to learn. Most respondents agreed that the time allocated for the training was adequate. The respondents agreed that the training room was comfortable and the facilities that were needed were available. The respondents strongly agreed that the training was worthwhile. They also agreed that the accommodation was comfortable, and the meals were delicious. The booking was also confirmed to have been straightforward.

4.24.3. Research Question 4: Do learners prefer credit-bearing courses or not?

Moss (2019, p 176)), stated that credit is a value that is assigned by the authority to ten (10) notional hours of learning which are moving hours (study per learning hour) i.e., 10 hours = 1 credit or 1 year = 120 credits. Over 70% of the respondents believed that they prefer the training to be a credit-bearing unit standard course that could provide credits that would collectively lead to a qualification when all put together. Only a few thoughts that it depends and no (Hester and Kitmitto, 2020).

4.24.4. Research Question 3: What are the ways or methods recommended to improve agricultural training at Shukela Training Centre (Pty) Ltd?

According to the survey, most of the respondents felt that the quality of the training could be improved. Others also felt that the duration of the training could be also improved and the meals as well. The rest felt that the training equipment and accommodation could be improved as well. When the respondents were asked whether they saw a significant improvement in the performance of the farmworkers after the training most of them agreed while others felt it was too early to tell. A lower percentage was uncertain and indicated that there was no significant

improvement. Most of the respondents said that the training was extremely relevant while a few were neutral.

4.25. Conclusion

According to the survey at least half of the participants attended the trainings. The aspects of the training to be improved ranged from quality of training, duration of the training, meals, accommodation training equipment and other. More than 70% of the respondents believed that they prefer the training to be a credit-bearing unit standard course that could provide credits that would collectively lead to a qualification when all put together. Most of the respondents felt that the quality of the training could be improved. Others also felt that the duration of the training could be also improved and the meals as well. The rest felt that the training equipment and accommodation could be improved.

Chapter 5: Conclusion and Recommendations

5.1. Introduction

This section is focusing on the research findings and conclusions based on the results of the study and recommendations advised by the views of industry associations (SACGA, SAFDA, and SASMA), individual milling companies, growers, and learners which is critical to SASA's intention of providing relevant training to the benefit of all stakeholders.

5.2. Conclusion

The study seeks to gain perspective from industry members and growers who have interacted with the agricultural training offered by the Shukela Training Centre (STC). The questionnaire aimed to get feedback on the impact of training courses offered by STC and the extent to which they are meeting growers' needs and to explore alternatives.

5.3. The impact of training

According to Engetou, 2017, this tends to be the most critical of the training process as it focuses on the results after the training. The main idea to analyse the effects of training and ascertain whether the main goals have been achieved. There are reactions which are focused on such as the participants feedback, the trainers' feedback, learning behavior and results of the training are being measured. To measure the impact of training, Kirkpatrick (1959) outlined four levels of evaluation.

5.3. Recommendations

5.3.1. Objective 1: To establish whether the respondents have attended the Agricultural Training at Shukela Training Centre (Pty) Ltd

The study shows that there is great attendance concerning STC courses by the sugarcane farmers and their workers. However, more marketing is still required outside of the sugar industry in Mpumalanga and SADAC countries. Training are booked by industry Associations such as SACGA, SAFDA, SASMA, individual milling companies, growers, and private clients in KZN, Mpumalanga, and SADC countries. There is a database at STC of all the customers who have booked training with STC and records in the form of registers on all the training that has taken place is provided.


As opposed to Manstrat 2011, the participation levels amongst the growers in training has significantly increased. The higher level of participation in the trainings is mostly due to availability of the of funds from GDA transformation funding for small-scale and land reform growers. All growers have also found a realization of the importance of training. (Manstrat, 2011)

5.3.2. Objective 2: To determine whether the training met the learners' expectations

According to Engetou, 2017, in the Kirkpatrick's model firstly one must focus on the reaction and planned action. These are measured reaction or evaluation of how the customers felt concerning the learning experience.

The study confirms that the growers were satisfied with the training. The growers expressed that the training was well-designed the farmers were very satisfied with the general design of the courses and thought it was relevant and useful in practice and the background theory is kept to the minimum required, the new knowledge covers skills which are applied in practice on the farms is informative. The farmers learnt a lot of new and interesting information. The training includes learning material that they cannot find in general agricultural courses or training material. Farmers acknowledge that just about every skill they need to start farming is included. There is also detailed gaps for advance farmers' knowledge to higher levels. The course content is highly problem and task centred, based on real issues and problems on specifically a sugarcane farm. Farmers are generally aware of why they need to learn about a particular topic. (Manstrat, 2011)

There must be training evaluation forms at the end of each training session to gauge the level of satisfaction from clients concerning how the training was executed. According to Siraj-Blatchford, 2020 surveys are done so that one can describe certain characteristics or several characteristics in each population. Thereafter the questionnaire must be analyzed and implemented accordingly. (Siraj-Blatchford, 2020).



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Shukela Training Centre Questionnaire

Your contribution and honest opinion on this questionnaire would be highly appreciated. It is anonymous.

1. Have you or your farm workers trained with Shukela Training Centre (STC)? Please circle YES / NO

2. If YES, please respond by ticking your responses from 1 to 10 on the table below:

Rating: 1 – Poor, 2 – Fair, 3 – Good, 4 Very Good and 5 Excellent

No.	Detail	1	2	3	4	5
1.	Please rate your knowledge of STC training offerings	1	2	3	4	5
2.	Did you find making a booking easy?	1	2	3	4	5
3.	Was there sufficient Communication from STC after booking was confirmed until the training day?	1	2	3	4	5
4.	What is your view on the quality of Training Content/Material?	1	2	3	4	5
5.	Was the training equipment brought by STC instructor(s) adequate?	1	2	3	4	5
6.	Was there observable changes to workers practice after the STC training?	1	2	3	4	5
7.	How would rate STC instructors' knowledge of their subject?	1	2	3	4	5
8.	Do you think you got value for money spent on STC training?	1	2	3	4	5
9.	Did the training meet your expectations/needs?	1	2	3	4	5
10.	What is your view on the cost of training at STC?	1	2	3	4	5

3. Would you recommend Shukela Training Centre to anyone, circle YES or NO and WHY?

4. Please make suggestions or improvements to be made by Shukela Training Centre.

Company Registration Number: 2003/054635/07
 Department of Higher Education and Training Registration Number: 2010FE0741
 Shukela Training Centre (Pty) Ltd is a subsidiary of the South African Sugar Association




Figure 5.1: Shukela Training Centre Survey

According to Engetou, 2017, in the Kirkpatrick's model secondly is the learning and confidence evaluation. This is the measurement of the increase in knowledge before and after training. The respondents agreed on the training making them more confident and knowledgeable.

According to Engetou, 2017, in the Kirkpatrick's model thirdly focuses on the behavioral impact. This is the degree of applied learning back at work – are the members really doing anything diverse after the training program than before? Of the number of the participants the majority, 57,1% said "yes" they saw the improvement in the performance.

According to Engetou, 2017, in the Kirkpatrick's model fourthly focuses on the results. It's important to know what results were achieved, in relation to the previous training objectives that were being set. For instance, has there being any decline in the number of customer's complaints? Reactions, behaviour and learning are of great importance, but if the training program cannot produce measurable performance – related results, then it has not achieved its goals accordingly.

According to the study there has been measureable performance for almost 60 % of the customers but for the other 40% there is still work outstanding.

5.3.2.1. Suggestions or improvements to be made by Shukela Training Centre (Pty) Ltd (Mtunzini Campus) in 2022 through a questionnaire

Water problems must be improved, protective clothing to be provided, a television in bedrooms, more numbers for equipment used to minimize waiting period, Wi-Fi, the extended period of training, new gloves required, more gas bottles for welding (3), new aprons, goggles, and spans and improve on training equipment. The linen must be changed more often. Menu to be improved and more cleaning.

5.3.3. Objective 3: To find an indication of whether the credit-bearing courses are preferable to learners versus the current skills courses

SAQA utilizes the system-based idea that one credit will equal ten notional hours of learning which is motivated in each of the cases. The notional hours will refer to learning and the time it takes an average student to meet the outcomes that are defined. This will also take into consideration contact time (Moss, 2019).

All the training offered by the STC Agricultural Training Department must be accredited and credit-bearing for the learners so that they can end up having a full qualification after completion of all the unit standards towards especially the National Certificate in Plant Production NQF Level 1 to 4. The study shows that learners are interested in acquiring certificates from AgriSeta which can be presented as stand-alone modules or can be packaged in such a way that they may ultimately lead, over time, to a full qualification. Learners also involved in Learnerships which is a vocational education and training programme. It combines theory and practice, culminating in a qualification that is registered with SAQA. A person who successfully completes a learnership will have a qualification that signifies occupational competence and is recognised throughout the country which is a huge advantage. (AgriSeta, 2023)

5.3.4. Objective 4: To explore ways in which the agricultural training offerings can be improved or enhanced at Shukela Training Centre (Pty) Ltd (STC)

In the previous Manstrat Report in 2011, studies identified gaps in the training space. Personal financial management was the most critical gap identified such as, inappropriate personal

financial management which is believed to be the most important barrier preventing farmers from becoming more successful. A variety of learning styles needs to be incorporated in the learnings.

The Manstrat report in 2011, indicated that there must be post-training support is needed, possibly in the form of mentorship, refresher courses, channels to contact lecturers or other experts for “theoretical” advice etc. This is especially critical for farmers without prior experience in agriculture. It is suggested that a further cost benefit analysis can be done to further reveal the magnitude of the impact of these training skills training programmes offered by STC.

The impact of training must be seen on a long term basis in the crop production basis and it must be measurable in terms of economic viability.

5.3.4.1. Training inspired by innovative technologies.

The training must be aligned which modern technology and research from the sugar research institute known as SASRI. The training materials must be reviewed every 3 to 6 months in terms of new laws and regulations or technologies within the Agricultural space. Training must be offered on the grower’s farm under operational conditions according to the farm’s cycle.

5.3.4.2. Crop diversification

According to the Sugar Master Plan, 2020, the objective is to develop detailed strategies and plans to provide and support appropriate crop diversification by growers as alternative to sugarcane and/or to support enhanced financial viability of sugarcane growers.

5.3.4.3. Quality Assurance

There must be a Training Manager employed to ensure issues of accreditation, curriculum development, and quality assurance in terms of the quality of the training materials and the way the training is implemented. There is also a QMS (Quality Management Committee) Meeting which seats every month dealing with the update in quality assurance. There will also be a quality policy in place Quality Policy, the purpose of this policy is to ensure that the Shukela Training Centre maintains learning processes that are valid, fair and of a consistently high standard and that result in appropriate outcomes for learners. There is also an STC Management Committee Meeting which critiques the value and training at the centre. There must be fully accredited training where the Portfolio of Evidence is assessed and moderated.

The materials and equipment for the training must be prepared well in advance to ensure that the training is very well organized. The materials should be also translated into Isizulu for most of the Zulu learners and an Audio CD could be a great form of refresher (Qwabe, 2022).

According to Moss (2018), here are quality councils which are new sector-based structures that are responsible for the development and the assurance of quality of the qualifications in their sub-frameworks of the NQF. There are three C's known as the General and further education and training, Higher Education and the Trades and Occupations. The training centre must maintain and apply for accreditation by ensuring that accreditation of the Agricultural training department such as AgriSETA and TETA is maintained and another accreditation such as HWSETA is obtained for the Agricultural department

5.3.4.3. Training which includes a hand-holding element

STC must provide innovative training, based on real-world agricultural situations. The course must be customized to meet the needs of the client and must be delivered by the client's premises or by the training center. The programs must be designed with subject matter expertise. The training must include gamification and innovative techniques which must be applied to all the training uptakes being part of monitoring and the evaluation process. STC must also include community development as part of its portfolio so that the community can be assisted to start a small business and look for employment opportunities. This will assist in promoting self-sufficiency and creating a future that is sustainable for the community (AgriIQ, 2022).

STC Agricultural training must not only be the type of training that will tick the boxes meaning it only be five days and the facilitator does not make follow-up thereafter. A hand-holding method can be implemented which involves tailor-made training that has 30% theory and 70% practical starting with the baseline research survey of the clients, this will be the stage of understanding the clients and then creating training that is suitable to the needs of the clients. Thereafter there will be a few more years of monitoring and handholding to ensure follow-up and that what needs to be done is done by the client. The training must be result driven (AgriIQ, 2022).

5.3.4.4. Training the trainers

The trainers must be constantly benchmarked to ensure that they are facilitating on the same level and, they must be exposed to modern technologies from the industry divisions such as

SASRI the experiment station to be able to have regular modular course to update training materials and be updated in their knowledge offering to the clients of STC.

5.3.4.5. New Recommended courses

According to the survey the respondents indicated that they would like certain life skills to be added to the course list such as plumbing, TLB training, Brushcutting, chainsaw, bricklaying, and electrical work, and ensure that they facilitate up-to-date industry technology knowledge. This can be done by having refresher courses after every two months which are to be offered by South African Sugar Research Institute experts to the STC instructors.

5.4. Study limitations

The sample of the study was drawn across the KZN sugar industry, due to time and resource constraints the more depth analysis was not thorough as it could have been to give a more comprehensive analysis of the training offered at STC. The most critical constraints were time. Further investigation can be done to include Mpumalanga as well as SADC countries.

There were more than forty online surveys that were forwarded to the growers but only twenty-eight participants were able to fill in the survey completely. There were time constraints due to receiving ethical clearance at a late stage.

Some of the growers responded: "I am not going to survey neither the grower nor I did any courses and therefore the information you are asking we cannot give a fair reply"

"I will not be able to give a true reflection as I am not so involved with the courses and material."

"Thank you for your mail but we will unfortunately not be able to take part in the study."

"I will not participate in a survey as have no money for training, we are struggling with crop production."

5.5. Further research opportunities

This study can be furthered by looking at the STC Agricultural Turnaround Strategy to make a turn around and improve on the training impact of the skills programmes offered. Thus, a well-informed turnaround strategy is vital for the continuation and the sustainability of the department. The strategy aims at ensuring that the agricultural training department is more self-sustainable by offering more diversified relevant courses to farmers of other agricultural

commodities, to departments and persons with interest for agriculture rather than only sugarcane farmers. It will also focus on increasing occupation courses within the agricultural sphere, more business-related courses and increment in Rural Enterprise development.

5.6. Final remarks

This chapter presented the data which was obtained through online surveys. The data was then interpreted and analyzed. The results were then discussed and then summarized where the conclusions were drawn, and the recommendations were made. It is critical that training involves a handholding element and does not become a tick-box exercise to see the value over time.

5.7 Conclusion

Agricultural Training is critical in the dissemination of new technology. The study was focused on the impact of agricultural training on the sugar industry. It is normally expected that trainings will have a positive impact on the sugarcane growers. According to Rasanjali, 2021 et.al. the research shows that there is no association between demographic factors and new agricultural technology application in the field. When the growers' point of view was considered, it was found that most of the sugarcane growers were generally happy about the skills training delivered by Shukela Training Centre. The study shows that the training programmes have a positive impact on the sugarcane grower performance and livelihood. The sugarcane growers also believed that the practical training was sufficient. When looking at the impact of training the growers generally believe that the training that STC offers does infact increase the usage of high yielding sugarcane varieties, follows SASRI recommendation with regards to seed cane and planting rates, herbicide and pesticide usages, new irrigation methods, and new machines and equipment. The growers have witnessed the best management practices used in their daily farming operations such as appealing physical cane appearance, good field hygiene, increment in income, and sustainable livelihoods. It is evident that impact should be distinguished before and after the training in a long term not just after one or two years by financial means and production as well. It is suggested that a further cost benefit analysis can be done to further reveal the magnitude of the impact of these training skills training programmes offered by STC. (Rasanjali et.al., 2021)

There must be comparisons between the survey data and the real-time evaluation data which in this case is unfortunately unavailable. There must also be a farmer follow up survey as post

training follow-up. For impact evaluation the yield, costs and revenue analysis must be interpreted. (Rasanjali et.al., 2021)

According to Masta and Yaqsmín, 2020, the training impact is gauged by increment in the quality of work, increment in farm product, cost saving, time savings, increased income and increase in networking as a social effect.

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LIST OF APPENDICES

APPENDIX 1: Gatekeepers Letter



SHUKELA TRAINING CENTRE
31 Sugar Mill Way, Mount Edgecombe, 4300
P.O. Box 23, Mount Edgecombe, 4300
Telephone: +27 31 508 7700
Facsimile: +27 31 502 3520
Website: www.sasa.org.za

11 August 2022

TO WHOM IT MAY CONCERN

Subject: Gatekeepers Letter for Nolwazi Madlala (207519863)

In my capacity as the General Manager of Shukela Training Centre (Pty) Ltd, do hereby give permission for Ms. Nolwazi Protasia Madlala (Student no: 207519863) to use data in possession of Shukela Training Centre towards her Master's in Business Administration research at the University of KwaZulu Natal, Westville Campus. The research to be conducted for her master's dissertation is titled "Investigating the impact of training agricultural skills programmes by Shukela Training Centre (Pty) Ltd".

If you require any further information, please do not hesitate to contact me on **Thami.Mathe@sasa.org.za**.

Regards

Thami Mathe
General Manager – Shukela Training Centre
South African Sugar Association
Facsimile: +27 31 502 3526
E-mail: Thami.Mathe@sasa.org.za

APPENDIX 2: Ethical Clearance Letter



15 September 2022

Nolwazi Protasia Madlala (207519863)
Graduate School of Business & Leadership
Westville Campus

Dear NP Madlala,

Protocol reference number: HSSREC/00004687/2022

Project title: Investigating the impact of training agricultural skills programmes offered by Shukela Training Centre (Pty) Ltd

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 25 August 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 15 September 2023.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/ms

Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 8350/4557/3587 Email: hssrec@ukzn.ac.za Website: <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Informed Consent Letter 3C

UNIVERSITY OF KWAZULU-NATAL
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP



Master of Business Administration (MBA) Research Project

Researcher: Nolwazi Madlala (082 655 8573)

Supervisor: Dr B.Z. Chummun (031 260 8943)

Dear Respondent

My name is Nolwazi Protasia Madlala, a Master of Business Administration student at the Graduate School of Business and Leadership of the University of KwaZulu-Natal.

You are invited to participate in a research study titled **“Investigating the impact of training agricultural skills programmes offered by Shukela Training Centre (Pty) Ltd”**. The research study for training agricultural sugarcane growers in KwaZulu Natal, South Africa. The objective of this training assessment is to gain insight from industry members and growers who have interacted with the agricultural training offered by the Shukela Training Centre (STC). The aim of the questionnaire is to get feedback on the strengths and weaknesses of training courses offered by STC, the extent to which they are meeting growers' needs, and to explore alternatives.

The views of industry Associations (SACGA, SAFDA and SASMA), individual milling companies, growers and learners are critical to SASA's intention of providing relevant training to the benefit of all stakeholders. They will all participate in this survey.

Through your participation, I hope to address the following objectives:

- To establish whether the respondents have attended the Agricultural Training at Shukela Training Centre (Pty) Ltd

**UNIVERSITY OF KWAZULU-NATAL
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP**



Master of Business Administration (MBA) Research Project

Researcher: Nolwazi Madlala (082 655 8573)

Supervisor: Dr B.Z. Chummun (031 260 8943)

CONSENT

I..... (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project. I understand that I am at liberty to withdraw from the project at any time, should I desire to do so.

Signature of participant: _____ Date: _____

NB: Researcher's Copy

APPENDIX 4: Questionnaire

Investigating the impact of training agricultural skills programmes by STC (Pty) Ltd

The survey will take approximately 10 minutes to complete. The objective of this training assessment is to gain insight from industry members and growers who have interacted with the training offered by the Shukela Training Centre (STC) specifically the Agricultural Department.

The aim of the assessment is to get feedback on the strengths and weaknesses of training courses offered by the STC and the extent to which they are meeting growers' needs, and to explore alternatives. The views of industry Associations (SACGA, SAFDA and SASMA), individual milling companies, growers and learners are critical to SASA's intention of providing relevant training to the benefit of all stakeholders.

Thank you for participating in this survey

8 What describes your occupation best (Select your answer)												
I work in a commercial owned sugar cane farm												
I work in a small-scale owned sugar cane farm												
I own a commercial sugar cane farm												
I manage a commercial sugar cane farm												
I manage a small-scale owned sugar cane farm												
I own a small-scale sugar cane farm												
I work for a grower association												
I work for a miller association												
Other												
9 Have you attended, or sent any staff member/ delegate, to any of the following courses? (Select your answer)												
STC skills courses												
STC Stationary courses												
STC Foundational Good Governance												
10 If you have attended or sent a staff member/ delegate to more than five courses, we ask that you complete a 2nd survey to submit your responses for those courses. (Select your answer)												
3 of the above courses												
2 of the above courses												
1 of the above courses												

23 What aspects of the training could be improved									
24 Did you see a significant improvement in the performance of your farmworkers after training? Please ignore this question if you are not a Farm owner or Manager or Supervisor. (Select your answer)									
Yes	No	Uncertain	Not applicable	Too early to tell					
25 Please give additional information if possible.									
26 Would you prefer this training to be a credit bearing unit standard course i.e. providing credits that could collectively lead to a qualification if/when put together with other credits from other unit standard:									
Yes	No	Depends	Doesn't Matter						
27 Please rate the relevance of the course on your work or business operations									
28 What additional training would you like to have in the future that would help you improve your farming skills/operation, not limited to cane production?									