



Cape Peninsula
University of Technology

**FACTORS INFLUENCING THE PERFORMANCE OF LEARNERS COMPLETING
APPRENTICESHIPS IN THE PRINTING AND PACKAGING INDUSTRY OF SOUTH
AFRICA**

by

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DECLARATION

I, Etienne Hermanus Bester, declare that the contents of this dissertation represent my own unaided work, and that the dissertation has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.



19 October 2018

Signed

Date

ABSTRACT

The aim of this study was to identify the factors that influence the performance of learners from the perspectives of learners and facilitators and determine if there are similarities or significant differences between them. This study was conducted utilising methodological triangulation for data collection. It used the Priority-Sequence Model design as a preliminary qualitative method in a quantitative study. The study used two approaches of qualitative and quantitative methodologies. Both phases used questionnaires or surveys that were administered to two different categories of cases, facilitators and learners. The qualitative questionnaire identified variety of factors that were prioritised in the quantitative survey. The facilitators remained the same sample throughout the study, but the learner sample differs throughout. The respondent's factors were then compared to determine similarities or differences. Results showed that between the categories of cases, success factors indicated synergy and failure factors resulted in significant differences. The facilitators believed that the success of learners was dependent on the learners, facilitators and the environment in which the learning took place. The learners believed that they were responsible for their own success and focused less on the environment and the facilitators. The facilitators also believed that the learners were solely responsible for their failure and that they had no contribution to it. In this instance the learners felt the same, indicating that the environment, facilitators and other factors beyond their control had little impact on their failure. It is evident that a more holistic approach to studies must be established and a deeper approach to learning and teaching must be adopted.

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DEDICATION

To my boys Liam, Kayden and Blayne; thank you for giving up your time, although unaware of it at the time, so that I could complete my Masters degree in Business Administration. Although your “Pappa” did his best, I know that there were times where I could have spent more time with you boys. I love you very much and will always be there for you.

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GLOSSARY

Terms / Acronyms / Abbreviations	Definition or Explanation
CBMT	Competency Based Modular Training System
CEP	Committee of Expert Practitioners
Competency checklist	This is a checklist to which a trainer will assess the learner's ability to perform the task competently (<i>Dr. Thomas. 2013</i>).
DHET	Department of Higher Education and Training
ETQA	Education and Training Quality Assurance
Facilitator/s	This is the adjective for the word facilitate; which is a term used for making an action or process easy or easier (<i>Oxford Dictionary online</i>). It also refers to practical and theoretical instructors or lecturers in this study
FET	Further Education and Training
FPM Seta	Fibre, Processing and Manufacturing Sector Education Training Authority
Learner/s or Student/s	A person who is learning a subject or skill.
Learning Guide	This is a document which contextually represents the theory behind the practise in each module of training including a questionnaire to test feedback from learner (<i>Dr. Thomas. 2013</i>).
Lecturer/s	A person who gives lectures, especially (British) as an

	occupation at a university or college of higher education (<i>Oxford Dictionary online</i>).
MAPPP Seta	Media, Advertising, Publishing, Printing and Packaging Sector Education Training Authority
NAMB	National Artisan Moderation Body
NQF	National Qualifications Framework.
OFO	Organising Framework for Occupations
PNPIETB	Printing, Newspaper and Packaging Industry Education Training Board
QCTO	Quality council for Trades and Occupations
SAQA	South African Qualifications Authority
SETA	Sector Education Training Authority
Stats SA	Statistics South Africa
Task Analysis	A task analysis is the starting point in developing a training module. It is the skeleton and outlines the essential features. A task analysis is not a course syllabus, but deals with each task as a standalone entity (<i>Dr. Thomas. 2013</i>).
Trainer/s	A person who trains people i.e. <i>teacher trainer</i> . Is a person qualified in the specific trade direction in which he would be delivering training (<i>Manpower Training Act 56 of 1981</i>)
TT	Technical Theoretical

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

The quality of skills development in South Africa has deteriorated over the past few years and this is congruent with Apprenticeship training in the Printing and Packaging Industry of South Africa (FPM Seta or MAPPP Seta results 2009-2012). For almost twenty years, the governing bodies of training and education for the Printing and Packaging Industry of South Africa (PNPIETB, MAPPP Seta and FPM Seta) have made little progress in the research and development for National training within this industry (van der Westhuizen, 2012). Although a few attempts were made to perform the above activities in 2000 and 2007, no amendments have been made to the national curriculum and syllabi as yet (FPM Seta or MAPPP Seta, Legacy Qualifications, 2013).

Year upon year, government speaks of needed and prioritised skills development. There are many institutions that exist that deliver skills development training, but very few of these skills are retained not just within our country, but also within the individual. It has been proven that 80% of the skills and education acquired is lost within the first 30 days of work (Dunlosky, Rawson, Marsh, Nathan, and Willingham, 2013). For this reason, it is important to explore learners, facilitators, learning environments, learning - and teaching techniques in order to improve on the retention of skills. Strategic planning could potentially improve the success rate in practical and academic performance within Apprenticeship training and could lead to an increase in the level of skills and a higher level of quality skills development.

Despite revolutionary economical and technological advances made in emerging markets such as China, India and Japan (One World Nations Online. n.d.) training, education and the development of new material and curriculum has been insignificant within the South African market (Van Der Westhuizen, 2012). This cannot bode well for the future of the industry and therefore in the past four years, committees of expert practitioners (CEP) have been established in order to up-date and develop new curricula and material for learning (QCTO, 2016). The Printing and Packaging Industry's technology is advancing rapidly and the industry is struggling to keep up with these advancements in terms of training and education. Research and development is needed for the industry to remain competitive and training and education must imitate this, so that the curriculum development process can mirror the practical application thereof.

Whilst the new curricula and material are developed, the researcher postulated that it would be appropriate to incorporate the factors that could potentially assist learners to complete courses successfully. In addition, consider the factors that could assist facilitators in ensuring that students reach their full potential and create an environment of learning whereby the extensive demographic variability of learners in South Africa could maximise their potential for success (Fraser and Killen 2002, 2003 and 2005). The views of learners and facilitators are not necessarily equivalent with regard to these factors, which could have an impact on the performance of learners (Fraser and Killen, 2005).

This investigation seeks to improve the understanding of apprenticeship training and development through the identification of above mentioned critical factors. This in turn may enhance the apprenticeship learning program and the environment in which the learning takes place.

1.2 RATIONALE OF THE RESEARCH

1.2.1 Background

The problem discussed in this research was identified through the experience that the researcher has within the Printing and Packaging Industry of South Africa, serving on many forums relating to skills development and apprenticeship training specifically. In 2010 the Sector Education Training Authority of this industry embarked on revising the curriculum and skills development for the Printing and Packaging Industry specifically trade training. This was the first time it was attempted since the unit standard based learnerships made its appearance on 4 October 1995, with the establishment of the South African Qualifications Authority Act (SAQA) and the National Qualifications Framework (NQF). Unfortunately this did not come to fruition as the industry felt that the Competency Based Modular System used in this industry was far superior than the unit standard based system.

This decision led to the industry not focusing their time and energy on the development of new qualifications and the alignment of these with the national standard that was in its infancy stage of development. This led to the curriculums and material for these qualifications becoming outdated over the years and the positive impact achieved in the past had now led to more learners being unsuccessful. The researcher decided that as he was part of the curriculum development process, an in depth study needed to be done to determine what the various factors were that caused learners to either succeed or fail.

1.2.2 Problem statement

The factors that influenced the performance of learners in tertiary education or adult based learning, as identified by Fraser and Killen (2002, 2003 and 2005), could equally apply to learners completing apprenticeships in the Printing and Packaging Industry of South Africa. Furthermore, the views of learners and facilitators are not necessarily equivalent with regard to these factors (Fraser and Killen, 2005.), which could potentially have an impact on the performance of learners. This investigation seeks to improve the understanding of the apprenticeship training and development within the Printing and Packaging Industry and what factors influence this training. This is to improve the apprenticeship learning program and the environment in which the learning takes place.

1.2.3 Research aim and objectives

The aim of the research was to describe the shortcomings experienced in the training and education of apprentices in the Printing and Packaging Industry of South Africa. The main objective was to determine the factors that influence the successfulness of this training.

The following research objectives were formulated and address the aim of this study:

- (a) To determine what learners and facilitators perceive as success or failure in the completion of apprenticeships.
- (b) To determine if there are significant differences between learners' and facilitators perceptions.
- (c) To determine the factors that learners and facilitators perceive as contributors to the successful completion of apprenticeships.
- (d) To determine factors that learners and facilitators perceive as contributors to failure in the completion of apprenticeships.
- (e) To analyse if there are significant differences in the perceptions of learners and facilitators with regard to the factors that contributes to success in the completion of apprenticeships.
- (f) To analyse if there are significant differences in the perceptions of learners and facilitators with regard to the factors that contributes to failure in the completion of apprenticeships.
- (g) To propose a strategic plan to emphasise positive - and reduce or eliminate negative factors in the completion of apprenticeships.

1.2.4 Research questions

The following research questions were formulated:

- (a) What do facilitators and learners perceive as success or failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa?
- (b) What are the perceptions of facilitators and learners with regard to the factors that contribute to success in the completion of apprenticeships in the Printing and Packaging Industry of South Africa?
- (c) What are the perceptions of facilitators and learners with regard to the factors that contribute to failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa?
- (d) What are the similarities or differences in the perceptions that facilitators and learners have about the factors that contribute to success in the completion of apprenticeships in the Printing and Packaging Industry of South Africa?
- (e) What are the similarities or differences in the perceptions that facilitators and learners have about the factors that contribute to failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa?

1.3 OVERVIEW OF THE LITERATURE REVIEW

Chapter 2 of this dissertation discusses all the relevant literature that was needed in the conclusion of the study. The apprenticeship system and the sphere in which these were administered were explained. Success, failure and significant differences were defined in order to comprehend what it meant in this area of learning. Andragogy was explained in order to contextualise the environment in which the training took place. Contrasting literature perspectives were identified and evaluated; qualitative themes contributing to success in tertiary studies were identified. Evaluation and correlation of learners and lecturers perspectives were discussed. Differentiation from previous research was articulated and potential positive outcomes were introduced.

The work done by Fraser and Killen (2002, 2003 and 2005), informed this study as it related specifically to adult based learning and teaching in the sphere of tertiary education and apprenticeships. Variables such as success, failure, apprenticeships, andragogy and the perceptions of learners and facilitators were conceptualised.

1.4 OVERVIEW OF THE METHODOLOGY

A methodological triangulation methodology was utilised to collect data (Bryman, 2011). Principle and preliminary methods were clearly defined to ensure proper administration of the research. The researcher used the “Priority-Sequence Model” for this particular study. The design was described as a mixed method relating to a “preliminary qualitative method in a quantitative study” (Morgan, 1998:362-368).

The population of the cases were described and sampling methods for both the qualitative and quantitative phases were discussed. The researcher also described the research process with its instrumentations as well as limitations.

1.5 ETHICAL CONSIDERATIONS

Ethical approval was needed from all participating role players. This written approval was obtained from the institutions, learners and facilitators prior to the data collection. The confidentiality of all respondents was ensured and the information collected was utilised solely for this study. However, the intention was that the results of this study will be used for further research in order to complete doctoral studies in which the strategic plans referred to herein will be developed in the future.

All surveys that were administered were voluntarily answered and the respondents were able to withdraw at anytime during the process. Informed consent was secured prior to surveys being administered to all the respondents (Refer to Appendices C and D). The researcher explained to the respondents what the research was about, what the purpose of the research was and what implications there were in participating in the research. The researcher also ensured that the respondents had his contact details, should there be enquiries at any stage. Research findings were to be made available to all respondents on request to ensure transparency and so that further research in this regard could be pursued, if they so wish.

1.6 SIGNIFICANCE OF THE RESEARCH

The significance of this study was identified after gaining experience in the industry for more than 17 years. Firstly, year upon year government was talking about needed and prioritised skills development. There were many institutions that existed that delivered skills development training, but very few of these skills were retained not just within the country, but also within the individual. It was proven that 80% of the skills and education acquired was lost within the first 30 days of work, if not applied within the work environment (Dunlosky, Rawson, Marsh, Nathan, and Willingham, 2013). For this reason, it was important to explore

learners, facilitators, learning environments and learning - and teaching techniques in order to improve on the retention of skills.

Secondly, the Printing and Packaging Industry's technology was advancing rapidly and the industry was struggling to keep up with these advancements in terms of training and education. Research and development was needed for the industry to remain competitive and training and education had to imitate this, so that the curriculum development process could mirror the practical application thereof.

Thirdly, the sector was initiating a complete curriculum development process in which they aimed to refine and update all curricula within this industry. This research therefore assisted with the understanding of various facets of learning in order to ensure these were included or considered when the curricula was developed.

Fourthly, research of this nature was exploratory in the Printing and Packaging Industry of South Africa as no studies of this kind had been conducted that was applicable to this industry. This study could possibly have acted as a catalyst for further research and studies and could improve the knowledge - and information base for research, in this sector.

Fifthly, the study was applicable to apprenticeships and therefore incorporates theoretical- and practical training and education, making it distinctly different from previous research which was based on undergraduate university studies which are normally theoretically based only. Some of the research findings may have been extrapolated for consideration in apprenticeships or trades in other sectors within South Africa.

Lastly, the data collected and analysis concluded, will provide further information and understanding into learners, facilitators, the learning environment, facilitator's approaches to teaching and learner's approaches to learning. This information could then be utilised to make the learning experience as smooth and fluent as possible so that the external factors which cannot be controlled become less cumbersome.

1.7 CHAPTER OUTLINE

1.7.1 Chapter 1: Introduction

The aim of this chapter was to introduce the reader to the topic and the issues that led to the research being done. It also indicated the rationale of the study, the ethical considerations and significance related to the aims and objectives of the study.

1.7.2 Chapter 2: Literature review

The aim of this chapter was to provide the reader with an overview of the environment in which the education and training took place, giving them a better understanding of adult based learning and teaching and correlating the findings with previous research of this nature. Both qualitative and quantitative themes were discussed and perspectives were evaluated.

1.7.3. Chapter 3: Research approach and methodology

The aim of this chapter was to provide the reader with a detailed account of the methodology used and a deeper understanding of the research process. The objectives of the study were to determine the most influential factors that lead to success and failure in apprenticeship training and the synergy or differences between the perceptions of the role players.

1.7.4 Chapter 4: Results

The results of the data collection and analysis were interpreted and correlations were drawn. The results were communicated and used in order to determine the priority success - and failure factors to ensure objectives of the study were met.

1.7.5 Chapter 5: Discussion of findings

The main study findings were highlighted and discussed in order to give the reader more insight into what has been accomplished with the study. The findings were then formed and explored in order to determine further solutions or shortcomings in the study.

1.7.6 Chapter 6: Recommendations and Conclusion

The main limitations to the study will be discussed and highlighted. The researcher will then conclude the study by proposing recommendations for future research.

1.8 SUMMARY

This chapter introduced the dissertation by highlighting the content of each chapter within the dissertation. The rationale, significance and ethical considerations were discussed, explaining the reasons for a study of this kind. The next chapter deals with the literature that was consulted in order to complete the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

The quality of skills development in South Africa has deteriorated over the past few years and this is congruent with Apprenticeship training in the Printing and Packaging Industry (FPM Seta or MAPPP Seta results 2009-2012). Improvement in the success rate in practical and academic performance within apprenticeship training in the Printing and Packaging Industry of South Africa could lead to an increase in the level of skills and a higher level of quality skills development. The investigation seeks to improve the understanding of the apprenticeship training and development within the Printing and Packaging Industry and the factors that influence this training. This may contribute to positively enhancing the apprenticeship learning program and the environment in which the learning takes place.

The aim of this chapter is to provide a brief synopsis of the different aspects around research factors that have an influence on the successful or unsuccessful completion of studies in tertiary education and apprenticeship training. It includes comparisons between these training options to draw attention to the major influential factors. A thorough explanation of the major influential factors was supplied and reviewed and the Apprenticeship system was explained to ensure clarity on the subject.

2.2 CONCEPTUALISING VARIABLES

To understand and interpret the research the following must be conceptualised:

2.2.1 Success and Failure

Success in the completion of apprenticeships in the Printing and Packaging Industry of South Africa is two-fold as there is a practical component as well as a theoretical component culminating in a qualification. The minimum requirement from a theoretical component perspective is completing the trade theory -, technical - and life skill subjects in each technical theoretical (TT) block with 50%, 45% and 45% respectively. The qualification consists of three TT blocks. The duration of each TT block is four weeks and thereafter three days for National examinations. Attendance registers are kept on a daily basis to ensure class attendance.

The minimum requirement from a practical component perspective is completing the practical tasks or skills competently; numerous times in order to show proficiency and achieve an 80% pass rate completion within each module. These modules are signed off by the facilitator and learner so to ensure authenticity. Each module has a maximum of three attempts. If all these standards for both the practical and theoretical components are not achieved it will be determined as a failure (FPM Seta or MAPPP Seta, 2012);

Two practical phase tests are also conducted at specific times during the period of three years and on completion of certain modules. These are known as Phase II and Phase IV practical assessments. The Phase II assessment is an interim assessment which takes place after Phase I and II practical modules are completed as well as Technical Theoretical 1 (TT1). The Phase IV assessment is a final summative assessment conducted on completion of all practical and theoretical modules. This is also known as a Trade Test in the Printing and Packaging Industry. Successes in these are determined by achieving 80%, in both phases, for all the criteria determined by the assessment instruments (Refer to Appendix A).

2.2.2 Learner's and Facilitator's Perceptions

These are the perceptions that the learners and facilitators identified as being the most critical factors that will contribute to the successful or unsuccessful completion of apprenticeships in the Printing and Packaging Industry of South Africa (Killen, 1994). Examples of these types of factors are; the students motivation, approach to studying, cultural expectations, academic literacy, time management skills and psychosocial factors such as the peer culture, the quality of teaching and the students belief in their own abilities (Fraser and Killen, 2002, 2003 and 2005; Smith and Wilson, 2004).

2.2.3 Apprenticeships and Adult Learning

The reader must know and understand two important components related to studying the factors that influence performance of learners completing apprenticeships in the Printing and Packaging Industry of South Africa. These are what an “apprenticeship” is in the context of South Africa and the fact that we are dealing with education in the paradigm of “Adult Learning.”

2.3 APPRENTICESHIP

An apprentice means any person employed in terms of a contract of apprenticeship registered or deemed to be registered in terms of the provisions of Section 16(3)(d) or Section 18(1)(c) or (3) and, for the purposes of Sections 42, 50, 51, 54 and 56, includes any

minor employed in terms of the provisions of Section 15 in the Manpower Training Act 56 of 1981;

Leading from the above, an apprenticeship is therefore all training and employment that fall within the scope of the contract of apprenticeship that is registered with the relevant Sector Education Training Authority (SETA). In this study, this Seta is known as the Fibre Processing and Manufacturing Seta (FPM Seta), previously referred to as the Media, Advertising, Printing, Packaging and Publishing Seta (MAPPP Seta) and prior to that the Printing, Newspaper and Packaging Industries Training Board (PNPIETB).

Subsequent to the legislation of the Manpower Training Act 56 of 1981, other regulatory requirements namely, the Skills Development Act No.97 of 1998 and the Skills Development Levies Act of 1999, have been developed for apprenticeships, which brought about changes and is now referred to as “Trades” in the Organising Framework for Occupations 2012 (OFO 2012) (DHET, 2012:8-9) and (OFO 2013) (DHET, 2013:14).

The National Artisan Moderation Body (NAMB) utilised the following definitions and criteria to determine if an occupation can be classified as a “trade” in the OFO 2012 and OFO 2013:

“An occupation where in a qualified person applies a high level of practical skills supported and re-enforced by underpinning and applied knowledge to:

- (a) Manufacture, produce, service, install or maintain tangible goods, products or equipment in an engineering and/or technical work environment (excluding process controllers and operators);
- (b) Use tools and equipment to perform of his or her duties;
- (c) Measure and do fault finding on process, manufacturing, production and/or technical machinery and equipment to apply corrective or repair actions;
- (d) Apply and adhere to all relevant health, safety and environmental legislation; and
- (e) Has an accumulative learning period covering knowledge, practical and workplace learning that is equivalent to three or more years.” (OFO 2012:8-9; 2013:14”).

The opinions and/or results obtained from the various surveys completed by the learners and facilitators reflect both theoretical and practical components of the apprenticeship. Additional definitions relating to apprenticeships that need to be considered are: “a structured learning programme of knowledge, practical and work experience, a structured learning programme that must be successfully completed before a final assessment is attempted and a final external summative assessment that must be passed, which is known as a trade test” (OFO 2012:8-9; 2013:14).

2.4 ADULT LEARNING

Adult learning, better known as “andragogy” needs to be clarified in order to understand the context of this study. Andragogy means “leader of man” (andr- is Latin for “man” and agogus- is Latin for “leader of”) (Crawford, 2004). In dealing with the concept of an adult learner one first needs to consider what an adult is. Rogers (1996:13 as cited in Gravett, 2001:6) expresses the difficulty in dealing with this concept and states the following, “a wide range of concepts is involved when we use the term adult. The word can refer to, a stage in the life cycle of an individual, such as the growth phases from childhood to adulthood; status, such as an acceptance by society that the person has completed his or her noviciate and is now incorporated fully into the community; a social sub-set i.e. adults as distinct from children or it can include a set of ideals or values, such as adulthood”.

Knowles (1990) characterises adult learners as autonomous and self directed, who have accumulated various life experiences and knowledge to which they want to connect learning. They are also goal - and relevance oriented and therefore they like clear objectives and reasons for entering into learning activities. Lastly, they are practical and need to be shown respect, therefore relating learning activities to their work and they want to be treated as equals.

Adult learners that enter tertiary studies, especially apprentices in the Printing and Packaging Industry of South Africa come from a vast array of social, ethnic and cultural backgrounds. These learners have been through a variety of journeys, life experiences, educational backgrounds and upbringings which in turn culminates in an array of needs, expectations, situations and academic proficiencies. This is magnified with government creating mass opportunities for all to obtain some form of qualification by spending billions of rands on education and training each year (Gordon and Manual, 2011 – 2013). This study aims to identify the range of factors affecting learners’ outcomes in the Printing and Packaging Industry in order to classify issues that should ultimately be addressed in order to improve the success of learners.

Gravett (2005), further states that one needs to consider two components or variables when it comes to learning, which is “understanding” and “remembering”. When taking on new information the brain transmits various neurological networks simultaneously. These transmitted networks attempt to connect to other networks already existing in the brain, so that the “logic” of the concepts can be understood. These neuronal networks find other connections much easier with “Adult Learners” due to the already established life

experiences and knowledge acquired over the years. It then creates understanding in a learner's cognitive ability. Unfortunately, as proven by Dunlosky et al, (2013), 80% of skills and education acquired is lost within the first 30 days and therefore repetition of understanding leads to remembering. If a learner does not remember what he or she had understood then learning has not taken place.

In "The Art of changing the brain" Zull (2004), speaks of emotional attachments to learning. This is important for both learners and facilitators to understand as their emotions will have an influence on the learning- experience and motivation for learning. Teaching must establish a "feel good" emotion in facilitators that is perceived by learners as such. Positive feelings perceived by learners from facilitators with regard to the subject, content or learning experience will positively influence their learning. In the same manner negative feelings will adversely affect their learning. When learners feel that they do not achieve something (feeling) they will be discouraged or demotivated (emotions) and this will adversely affect what he or she is being taught, however, if they achieve some sort of success (feeling) in tasks that appeal to them they will be motivated (emotion) and learning will ensue.

2.5 CONTRASTING PERSPECTIVES IN THE LITERATURE

The factors that influence the performance of learners in tertiary education or adult based learning as identified by Fraser and Killen (2002, 2003 and 2005), could potentially apply to learners completing apprenticeships in the Printing and Packaging Industry of South Africa. Furthermore, the views of learners and facilitators are not necessarily equivalent with regard to these factors (Fraser and Killen, 2005), which could have an impact on the performance of learners.

Success or failure at tertiary institutions has always been predicted or described in "results achieved" at secondary school level or "entry tests" completed at the various tertiary institutions. Most literature attempted to establish if learners will complete their respective courses successfully through pre-enrolment factors, which were results achieved prior to entering that particular course. It was said that these predictors were limited, although there were some positive outcomes in a few studies in the Australian context (Riggs and Riggs, 1990-1991; Graham, 1991).

Minimal evidence existed to prove that these averages and results achieved at secondary school level or entry tests at tertiary institutions were accurate predictors of success and failure within tertiary education. Thus, there were numerous studies on what the actual

factors were that could possibly contribute to success and failure in various institutions (Fraser et al. 1994, 2002, 2003 and 2005, Entwistle and Smith, 2002 and Jacobi, 1991). These various studies identified more qualitative measures that could potentially lead to the success of learners, their failure or the non-completion of learning. More importantly it was factors that affect learners before and during the completion of their studies. These include: teaching strategies, the students' motivation, the students' approach to studying, cultural expectations and numerous other factors as identified by various authors (Fraser, 2003 and 2005, Killen and Fraser, 2002, Killen, 1994 and Jacobi, 1991).

In the Printing and Packaging Industry of South Africa, we used these exact principles of secondary school results and entry level tests for predicting if a learner will be successful or unsuccessful, as was the norm the world over. Success and failure in this industry were dependent on far more than just these predictors as we were dealing with individuals that were previously disadvantaged or suppressed (FPM Seta, 2012), poor secondary schooling or standard of education, low levels of income, poverty and high unemployment rates (Stats SA, 2012:90-91).

2.6 QUALITATIVE THEMES: ADULT LEARNING

Considering the available literatures, four dominant themes prevailed amongst the various perceptions as identified by the lecturers and students. These include: lecturer characteristics, behaviours or activities; student characteristics, behaviours or activities, the teaching or learning environment and course content as well as other external factors beyond the control of the role players within this environment (Refer to Appendix F). In order to maximise the potential learning outcome, favourable interaction amongst learners and facilitators in a positive learning environment was necessary (Fraser et al. 2003 and 2005; Hill, Lomas and MacGregor, 2003; Killen, 1994; Watkins, 1984). Unfortunately, there was not much a learner, facilitator or institution can do about the external factors which in most cases cannot be regulated.

The lecturer's characteristics, behaviours or activities could potentially include positive elements such as: lecturers who can inspire students, enthusiastic lecturers, regular and comprehensive feedback from lecturers as well as encouragement and support from lecturers. There were negative elements such as: inappropriate assessment procedures used by lecturers, badly structured presentations, lack of personal interest in students and lack of rewards for student efforts (Fraser et al. 2003 and 2005; Killen, 1994). It was imperative that lecturers realised that they had an important role to play in students

completing their studies successfully and creating an environment in which students can reach their full potential.

The contemporary ways of learning and teaching these days, lent itself to the fact that good relationships between lecturers and students were necessary to ensure that students can grow and perform in their respective disciplines. Thus, lecturers being the more experienced of the role players should promote good relations between their students and themselves. In doing so, it was important for lecturers and students to learn a set of competencies that will help them deal with tertiary education in its entirety (Amos and Fisher, 1998:20).

In addition to this, Hill et al. (2003) also established that from a student's perspective quality education stems from lecturers who know their subjects well and show enthusiasm about the subjects and content. Lecturers also need to facilitate debates and stimulate interest so that the students can feel that they form part of the problem solving - and learning process. Students enjoy lecturers who foster a relationship with them, showing interest in them, caring for them and being supportive of them. These lecturer's characteristics ensure that the student perceive this learning as quality learning.

The student's characteristics, behaviours or activities could potentially include positive elements such as: Self-motivation, self-discipline, desire to learn, consistent effort, dedication to a career goal, self confidence and a stable personal life. There were negative elements such as: Insufficient effort, lack of self-discipline, laziness and apathy, lack of self-confidence, too many outside interests and lack of persistence (Fraser et al., 2003 and 2005 and Killen, 1994). It was important that students understand that they are ultimately responsible for their own success, especially in cases of adult learning and that specific and clear objectives or goals were potentially the most crucial motivator for adult learners (Schmelzer, Schmelzer, Figler and Brozo, 1987:265 and Knowles, 1980).

Student learning and learning approaches were also common factors that contribute to the success of learning outcomes. This was especially true in the completion of apprenticeships in the Printing and Packaging Industry of South Africa. A deep understanding of the underpinning knowledge generated in the theoretical classroom-based sessions were utilised in order to complete their daily jobs competently and successfully on the extremely expensive machinery and equipment available to them. The learners had to utilise a deeper approach than before to their studies and a deeper level of processing for them to seek meaning in order to understand the concepts that were being taught (Trigwell and Prosser, 1991).

The teaching or learning environment and course content could potentially include positive elements such as; a well structured course, availability of quality learning resources, applicable course content, access to resources such as libraries and internet and acceptance of university procedures and requirements. There were negative elements such as; heavy course workload, inadequate library facilities as well as inappropriate and bias assessment procedures (Fraser et al., 2003 and 2005; Killen, 1994). This teaching or learning environment and course content mix must be of such a nature that it ensures the promotion of learning, access to information, applicability of theory and practice as well as potential growth so that all students can reach their full potential.

The teaching or learning environment can only be positively influenced if all institutions, facilitators and learners contribute to the creation of this environment. Facilitators need to encourage deeper approaches to studying such as the setting of clear goals and utilising teaching strategies ensuring the learners understand the concepts being taught: Learners need to be encouraged to learn independently and work in groups and most of all the culture of surface learning needs to be eradicated (Prosser and Trigwell, 1997). Students who approach their studies as a meaning-oriented strategy tend to achieve higher quality learning outcomes. Therefore to improve the quality of student learning it is important that lecturers discourage teacher focussed transmission teaching and opt for a deeper, more meaningful type of strategy such as a conceptual change approach to teaching (Trigwell, Prosser and Waterhouse, 1999).

Hill et al. (2003) established that students perceive quality in higher education as the appropriate blend of expert teaching styles, the creation of a great physical environment for learning and the creation of a culture of learning amongst students. Support systems within the learning environment are also highly recommended as this gives students that needed attention to ensure they stay focussed on the task at hand. These systems assisted with the emotional and social complexities of higher education and adult learning and taught students coping mechanism in order to complete their studies. Diversity must be encouraged in order to include all relevant parties in the process. This was necessary in an industry and country that consists of such a vast array of learners with different cultures, learning experiences and academic backgrounds such as the Printing and Packaging Industry and South Africa. Students that enter apprenticeships find it difficult to cope with the transition between on-the-job training and academic classroom based learning. These support systems also tend to help with this transition as it potentially increased the control that students had over the specific situations they found themselves in.

Leveson (2004) determined that there were also factors identified by teachers with regard to all four the themes mentioned above that adversely affected the quality of teaching and the environment in which this teaching took place. These factors are; large administration workload, student lack of interest, irrational curriculum structures, problems with technical systems, decline in course quality and poor status of teaching.

2.7 QUANTITATIVE THEMES: COMPLETION OF APPRENTICESHIP TRAINING

Bender (2003) measured the likelihood of student's completion of their apprenticeships and traineeships in the fulfilment of their learning contracts in the Australian Vocational Education and Training System (AQF III, 2015). It was noted that in this study that contracts were more likely to be cancelled closer to the commencement of the contract rather than towards the completion thereof. The likelihood to complete in this study was based on expected completion duration viz. actual completion duration. The full time trades and occupation related qualifications with duration for more than three years were calculated based on the cohort above and the completion likelihood was benchmarked at 59.9%.

Due to various factors that influence the outcomes as stated in the research one cannot make the assumption that "completion likelihood" can be directly related to the "completion rate". As was the case with the South African National Learner Record Database (NLRD, 2014), the reporting of the national apprentice and trainee data in Australia experience the same issues of "under-reporting of completions" as well as "non-completions" due to withdrawals and or cancelations of contracts (Bender, 2003). However, this study was not dependent on the NLRD and as stated in Dr. Bender's findings "the completion likelihood was still a useful measure in analysing factors that influence completions in Australia's apprenticeship and traineeship system."

The literatures indicated a number of findings applicable to apprenticeships and these were:

- (a) Full time training contracts were more likely to result in completion than part time training contracts.
- (b) Trade occupations and training contracts had a 7% higher completion likelihood rate than non-trades occupations.
- (c) Younger trainees were less likely to complete than older trainees.

The likelihood of completion in this particular system also correlates with the likelihood of completion in the South African apprenticeship system, that was to say, contracts that result

in successful completion were contracts where the expected completion date were approximately the same as the actual completion date. Suffice to say, that any failure by the student or the organisation taking too long to qualify the apprentice will have had an adverse effect on the successful completion of the apprenticeship (FPM Seta, 2012).

2.8 EVALUATION AND CORRELATION: LEARNER'S AND FACILITATOR'S PERSPECTIVES

A significant correlation was found by Fraser et al. (1994, 2002, 2003 and 2005) in the perceived factors of lecturers and students contributing to the success of learners, however there were conflicting views with regard to the factors contributing to failure. Across these studies, the perceptions of lecturers and students contributing to success were consistent and the factors that were rated most likely to contribute to success were all predominantly student characteristics, behaviours or activities such as; self-motivation, self-discipline, interest in the course and desire to learn. The factors rated less likely to contribute to success were availability of university bursaries, a supportive peer group, study group support and general academic ability.

The perceptions of lecturers and students were different with regard to those factors that were more likely to contribute to failure of the students. From a lecturer's perspective, factors rated more likely to contribute to failure were all predominantly student characteristics, behaviours and activities such as inadequate or poor exam preparation, insufficient effort, lack of self-discipline, self-motivation and persistence. The students rated factors that were considered as lecturer characteristics, behaviours and activities as well as factors that were beyond their control such as too many demands on student's time, boring presentations by lecturers, unclear criteria and lecturer's expectations of assignments and lecturers with unrealistically high expectations of students. These factors were also prominent in the studies by Hill et al. (2003), Schmelzer et al. (1987) and Watkins, (1984) which stated that intrinsic motivation and discipline was of high priority in successfully completing tertiary studies.

It was apparent from the literature that lecturers tend to rate the factors contributing to a students' failure as factors that can be controlled by the students, whereas the students tend to contribute failure to factors for which lecturers were responsible or alternatively external factors. Thus, lecturers tend to place blame on student characteristics for failure and students tend to pass on this responsibility to lecturers, environmental characteristics and external factors for failure (Killen, 1994). Similarly, Schmelzer et al. (1987) found that

students tend to give themselves, lecturers and peers credit for success, but tend to place the blame on themselves and lecturers for their failure and not even considering their peers. This could be that the students do not think of their learning - and social environment as a threat to their success.

2.9 DIFFERENTIATION FROM PREVIOUS RESEARCH

Fraser et al. (2005, 2003, 2002 and 1994) research into this particular topic was done within departments in the University of Pretoria, comparisons between the University of Pretoria and University of South Africa and at the University of Newcastle in New South Wales. Other literature (Hill et al. 2003, Graham, 1991, Riggs and Riggs, 1990-1991, Schmelzer et al. 1987 and Watkins, 1984) included mostly university students and other types of tertiary education.

The current study was differentiated from the above studies since the participants were adults as per definitions provided in section 2.4 and who may or may not have completed secondary school. This places apprentices in a different academic proficiency category relative to the students in the above mentioned studies. All of the studies mentioned herein focus on theoretical classroom based training and distance learning, which reflects only theoretical learning. Apprenticeships have a theoretical and a practical component of learning which brings about different factors to those identified in previous research. This study was therefore exploratory in nature and aims to comprehensively determine factors concerning the Printing and Packaging Industry of South Africa in both theoretical and practical studies.

2.10 POTENTIAL POSITIVE OUTCOMES

This study was relevant as it creates awareness of the factors influencing success and failure in the completion of apprenticeships, from both the learners and facilitators' perspectives. Learners and facilitators may be more inclined to improve the learner's chances of success or minimising their chances of failure. The findings within this particular industry have the potential to positively contribute to transformation of the environment in which learning takes place, the process of facilitation as well as the learners approach to their studies in the completion of apprenticeships in the Printing and Packaging Industry of South Africa.

The identification and comparison of the various factors from a learner and facilitator's perspective may highlight similarities and / or differences. Conflicting views can be addressed and facilitate learners' approaching their studies and learning in different ways to maximise their success, while aiding the facilitators to enhance the positive - and minimise the negative factors by changing their approaches to teaching and to assist institutions to create an environment that will maximise a learners potential for success.

The literature implied that obtaining a harmonious balance between lecturer's characteristics and approaches to teaching, student's characteristics and approaches to learning, the environment in which learning takes place and the supportive systems available to these learners will improve the quality of skills development and learning. Striving to optimise this balance was critical in the development of learning programmes, workplace experience, assessment criteria, and methodologies of learning and the processes of teaching in the future.

2.11 SUMMARY

This chapter introduced the literature that was reviewed and conceptualised variables within the study; such as apprenticeships and adult learning. Contrasting perspectives in the literature were discussed and qualitative and quantitative themes were examined. Evaluation of previous research was done and correlation and differentiation was determined between this and previous studies. Potential positive outcomes were discussed. The research approach and methodology will be discussed in the next chapter.

CHAPTER THREE: RESEARCH APPROACH AND METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research method and approach. Referring to “The Layers of Research Design” (Saunders and Tosey, 2013), the research philosophical approach was first discussed followed by the methodology. Thereafter the strategies to the research, timelines involved and procedures were discussed.

3.2 THE RESEARCH PHILOSOPHY

The research philosophy adopted in the research was one of pragmatism ensuring that the evidence gathered from the sample population was credible, reliable and relevant for the preliminary qualitative phase. The data collected was then utilised in the assimilation of the subsequent quantitative phase, where the researcher adopted a more positivist philosophy to ensure that the data could be structured and measured to draw conclusions from the respondents rather than justify it by his own values.

3.3 THEORETICAL MODEL FOR DATA ACQUISITION

Data acquisition was achieved utilising methodological triangulation (Bryman, 2011). Principle and preliminary methods have been clearly defined to ensure proper administration of the research. The research method used was the “Priority-Sequence Model” for this particular study. The design was a “preliminary qualitative method in a quantitative study” (Morgan, 1998:362-368).

3.4 THE POPULATION

In order to conceptualise the research there were specifics that needed to be formulated. Apprenticeships within this sector are regulated by a National curriculum which included practical and theoretical training culminating in a qualification. This national learning system was called the “Competency Based Modular Training System” (CBMT) (Manpower Training Act 56 of 1981). These qualifications were regulated by the specific Education Training Quality Assurance (ETQA) body, but will in future be regulated by the Quality Council for Trades and Occupations (QCTO) promulgated and launched in March of 2012. Although this body exists and operates to date, all responsibilities must still be handed over to the QCTO.

For purposes of this study, the practical segment of the training component was also referred to as “occupation-based learning” which encompassed all the practical modules that needed to be completed within the qualification. These practical modules consist of a theoretical component and practical completion of tasks, which took place at the various stakeholder organisations. A module consisted of one of two components or both; a Learning Guide and Knowledge Check Sheet or Task Analysis and Competency checklist; or all four of these documents (Refer to Appendix B). Occupation-based learning was therefore all the learning that took place within the workplace.

The “theory-based learning” component was that component of the qualification which took place at a further education and training (FET) college or a training provider accredited by the FPM Seta. This component was referred to as a technical theoretical (TT) module or block in the Printing and Packaging Industry of which there were three within each qualification.

3.5 THE METHODOLOGY

3.5.1 Introduction

The “Priority-Sequence Model” of Morgan, 1998 was used as a “preliminary qualitative method (Phase 1) in a quantitative study (Phase 2)” (Refer to Figure 3.1).

The study consists of the perceptions of learners and facilitators regarding the factors that influenced the performance of these learners. Therefore, it encompassed a multitude of diverse opinions and factors. This gave rise to the selection of multiple methods of research for the purposes of this study (Morgan, 1998:362. as cited in Carey, 1993, Goering and Steiner, 1996, McKeganey, 1995, Morse, 1991, Stange, et al., 1994 and Steckler, et al., 1992). Qualitative and quantitative research was combined for the purpose of acquiring comprehensive data to achieve study objectives. Different methods have different strengths and the concept of combining these strengths to achieve described outcomes, led to an optimised process.

This study was conducted in two separate phases. In both phases, surveys or questionnaires were utilised (Refer to Appendices C and D). The researcher administered these surveys to two different categories of cases, facilitators and learners. The facilitators remained the same sample throughout the study, but there were differences between the learners in the study. The learners were at various levels within their studies known as

technical theoretical (TT) blocks. These were TT1, TT2 and TT3, which occurs twice per annum and once per semester.

3.5.2 Phase 1

A qualitative survey (preliminary) was administered, by means of hard copy (Refer to Appendix C) to the learners and facilitators in order to identify the most critical factors that contributed to success and or failure within the completion of apprenticeships in the Printing and Packaging Industry of South Africa. This format was considered the most cost-effective, accessible way of collecting the sample data from all the respondents in the population as not all respondents had access to computers.

The survey was administered to the learners and facilitators in the various institutions across South Africa in the following provinces: Western Cape, Gauteng and KwaZulu-Natal. However, learners originated from various provinces within South Africa. This survey consisted of three specific open ended questions. Hence, the first part was based on an “opinion poll” principle as defined by Welman et al. (2007). The survey did not test any hypothesis or variables, but generated opinions from the respondents in the population in order to create success and failure item sections in the quantitative survey. This particular design was selected as it has been successfully administered on numerous occasions to collect the opinions of cases within other populations (Fraser et al., 1994, 2002, 2003 and 2005). This once again justified that this design was valid and reliable in this field of study.

The content from the qualitative survey was then assimilated, analysed and comparisons were drawn with the factors that were identified in Fraser et al. (1994, 2002, 2003 and 2005), thus ensuring that validity and reliability were promoted in the context of this study. This process developed the quantitative survey.

3.5.3 Phase 2

The second phase of the study consisted of a quantitative survey (primary method) (Refer to Appendix D) and consisted of all the most prevalent critical opinions that were generated in the qualitative survey and items correlated with studies of Fraser et al. (1994, 2002, 2003 and 2005). These factors were then rated on a five-point Likert-type scale indicating to what extent the factors either contributed to success or failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa (Fraser et al., 1994).

The research required data collection over a period of time and therefore it was based on a longitudinal type design. Thus, this second phase of surveys was based on a longitudinal, trend survey design as defined by Welman et al. (2007). The industry to which the surveys were administered was of such a nature that you can only administer it at specific times throughout the year in order to achieve the highest response rate possible, most economically.

The survey was administered to various samples within the same population and this was indicative of a trend design. By administering it to the various Technical Theoretical groups which included TT1, TT2 and TT3, certain trends could be identified within the research (Welman et al., 2007).

3.5.4 The Research Process

The strategy and process flow that was used by the researcher for the collection, interpretation and reporting of data in order to complete the study was represented in Figure 3.1. There are key elements within the process which were learners as represented by the left hand side of the figure and facilitators as represented by the right hand side of the figure below. There were also two phases to the data collection, interpretation and reporting which were indicated as a preliminary and primary phase.

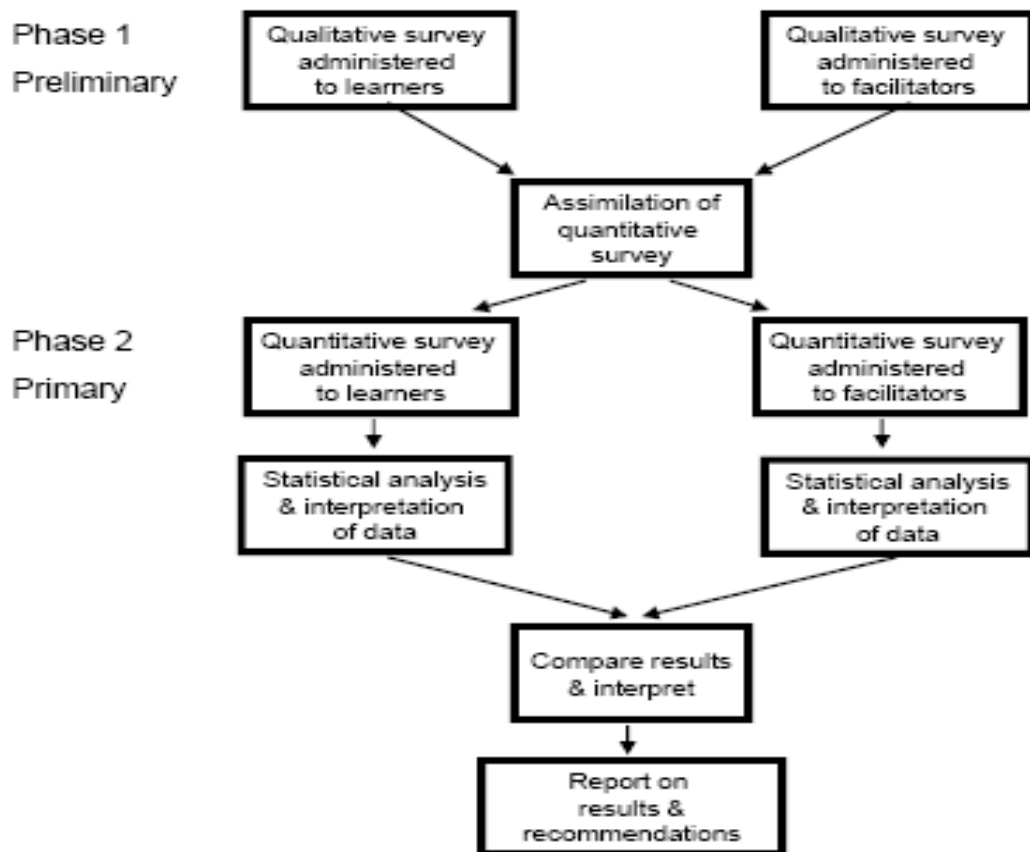


Figure 3.1: Process flow of research design

3.5.5 Preliminary Survey Administration - Qualitative

The preliminary qualitative surveys (Refer to Appendix C) were administered to the cases in the sample population as referred to in the research design. A self-administered hard copy was utilised as all the respondents did not have access to computers or were computer literate i.e. electronic copies was not a viable option for the purposes of this study. The data analysis was extensively time consuming and costly as a result. However, this process was the more cost effective way to collect the required information.

These surveys eliminated the distance constraints for the administration thereof and collection of the data. The surveys were sent to the Training Managers of each institution who in turn distributed it to the relevant samples in the population being the learners and the facilitators that attend TT1, TT2 and TT3 in the first semester. In this way a large number of the respondents were reached with minimum time and cost outlay. The preliminary qualitative survey took approximately 20 minutes to complete, but the respondents had one

week in which to complete it. These completed surveys were then returned to the researcher via courier, from the training managers of the various institutions.

3.5.6 Assimilation of Preliminary Data

Respondents' perceptions were captured onto EXCEL spreadsheets. An extremely extensive and time consuming summative content analysis (Hseih and Shannon, 2005) was performed as the survey questions produced multiple answers, but was favourable to obtain all or most of the opinions of the population and to ensure the development of a quantitative survey that was as inclusive and comprehensive as possible.

3.5.7 Primary Survey Administration – Quantitative

After the preliminary phase of the research, the primary quantitative surveys (Refer to Appendix D) were administered as part of the primary research in the same way as described for the preliminary qualitative survey. It once again consisted of a self-administered hard copy, but the data analysis in this phase were slightly less costly and time consuming as before due to the nature and structure of the questionnaire. The training managers at the various institutions ensured that the relevant samples in the population, being the learners and facilitators, that attended TT1, TT2 and TT3 in the second semester received the questionnaires. The quantitative survey took approximately 20 minutes to complete and the respondents once again had one week in which they could complete the surveys. The surveys were once again re-submitted to the researcher via courier by the training managers.

3.6 SAMPLING METHODS

3.6.1 Preliminary Qualitative Phase Sampling

The sampling method for facilitators in the preliminary qualitative phase of the research design consisted of a census. The reason for this was the small population size of facilitators in the Printing and Packaging Industry of South Africa. If some of the cases of this category were omitted, it could have led to a potential loss in valuable perceptions or views applicable to this study (Welman et al., 2007). The learner sample method used in this phase was that of a non-probability purposive sampling known as maximum variation sampling. Three samples types were identified in the preliminary qualitative phase incorporating all technical theoretical levels: TT1, TT2 and TT3, for the duration of the first semester. This sampling

type for learners ensured that all or most of the possible factors that contribute to success and failure were ascertained in this phase (Laerd Dissertations, 2012).

3.6.2 Primary Quantitative Phase Sampling

The sampling method for facilitators in the primary quantitative phase is that of a non-probability purposive sampling method known as “total population sampling”. This is once again due to the small population size as previously mentioned. Omitting the perceptions of some facilitators will once again have lead to a loss of valuable insight into the study. Maximum sample size of facilitators will promote inferential statistical procedures, which allows the researcher to generalise to a larger population (Welman et al., 2007). The learner sample method for this phase is non-probability purposive sampling known as maximum variation sampling once again. In this primary quantitative phase the same sampling types were used incorporating the TT1, TT2 and TT3, for the duration of the second semester. In this primary phase the factors assimilated from the preliminary phase were rated as to which of them contributed more significantly to the performance of the learners whether positively or negatively.

Thus, throughout the data collection the possibility existed that the learners that participated in the first phase of the surveys will participate in the second phase as well. Therefore in both phases, maximum variation sampling for learners allowed for the acquisition of a wide range of perspectives from the samples in the population, which facilitated greater insights into prevalent themes which will be identified through the analysis (Laerd Dissertations, 2012).

3.6.3 Data Management

Data from the primary quantitative survey was captured in Excel spread sheets, analysed and reliability tested. Statistical analysis was performed and findings interpreted.

3.7 INSTRUMENTATION

3.7.1 Introduction

The questionnaires required information to gain more insight as to the type of cases participating in the study. This included name, age, ethnicity, geographic's, technical theoretical level as well as gender, to potentially identify correlations in findings or perceptions. (Refer to Appendices C and D).

The first phase of preliminary qualitative research necessitated an in-tact instrument administered to students in higher education institutions in various countries like Australia and South Africa (Fraser and Killen, 1994). The content and terminology of the surveys had to be simplified to facilitate interpretation by the respondents, reduce confusion and loss of interest in completing the surveys. The language barriers that exist amongst South Africans, was a critical limiting factor in this population and within our country as some of the respondents will have English as a third or even fourth language. These home languages identified in the research of the respondents included isiZulu, isiXhosa, Sotho and Tswana.

The preliminary qualitative survey consisted of three open ended questions. Two of these questions required the respondents to identify five factors each, referring to success and failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa. In addition, the researcher included one more question to the in-tact qualitative instrument in order to identify, understand and interpret what the learners and facilitators in the industry perceived as success and failure in the completion of apprenticeships. Comparing this with the minimum requirements for success in the completion of apprenticeships in the Printing and Packaging Industry of South Africa, we could ascertained the level of commitment and or standards that existed within this industry.

In the second phase of the research, a self-designed primary quantitative survey was developed. This incorporated the success and failure factors identified in the first preliminary phase of this study and correlations were made between them and previous studies of this kind (Fraser and Killen, 1994, 2002, 2003 and 2005). This made it specific to the context of apprenticeships in the Printing and Packaging Industry of South Africa. The self-designed survey was also validated to ensure reliability. This was done by submitting it to one of the experts in the field so that face validity could be obtained. A signed copy of the questionnaire by the expert is attached in Appendix E.

These factors were then divided into two groups namely, success factors and failure factors. A five-point Likert-type scale was used in order for the respondents to rate the factors, to indicate to what extent these factors contributed to the successes or failures of completing apprenticeships in the Printing and Packaging Industry of South Africa (Fraser et al., 1994).

3.7.2 Data Analysis

Data analysis was first completed on the preliminary phase qualitative research (phase 1) using content analysis and then concluding with 50 success - and 50 failure factors. In the

primary quantitative research (phase 2) the five point likert-type scale result's means for each factor was calculated and prioritised from highest to lowest for both the success and failure factors. The significant differences between the findings or factors identified by the students in comparison with those of the facilitators on the various levels, was identified through the use of SPSS Chi-Square Test for association between two variables. A reliability analysis was performed by using the Cronbach's Alpha and tables were used to report on the data and results in Chapter 4 of the study.

3.8 LIMITATIONS

3.8.1 Limitations of the Research Method

This mixed method approach was successfully used on numerous occasions by Fraser et al. (1994, 2002, 2003 and 2005) on learners and facilitators perceptions. The same method was selected with minimal adaptation to accommodate the context of this study and further ensure reliability.

There are limitations to using the mixed method approach. When working with multiple methods the necessity for research designs that are more practical becomes essential. Combining these methods is essentially a technical challenge and this problem comes from conflicts between various paradigms. This study as with others of its kind (Fraser et al., 1994, 2002, 2003 and 2005), relies on different perceptions about the nature of knowledge and the appropriate means of generating knowledge, hence the kinds of information that are produced are often not comparable or measurable (Morgan, 1998:363).

Furthermore, a lot of negative aspects come to the fore with regard to the integration of the different types of research being qualitative and quantitative research methods. Researches in the past have identified the lack of integration between the methods and various factors for these have been identified namely; different audiences, methodological preferences, structure of research projects, roll of timelines and the nature of the data to name some that could possibly be relevant to this study (Bryman, 2007:8-22).

However, this study applies to one clear paradigm and the information generated with the qualitative research compliments the actual research done in the second quantitative primary phase. Furthermore, the factors mentioned above are not a barrier as the information or data that was collected in the preliminary qualitative study is the actual data utilised in the primary quantitative study (Bryman, 2007:8-22). No comparisons are drawn between qualitative - and quantitative data in this study and the researcher does not necessarily report on them both

individually, but the data that is collected in the primary study is specific to the preliminary study. Thus, the qualitative and quantitative data are combined in order to extract the correct data for analysis and interpretation in this study.

3.8.2 Limitations of Instrumentation

The limitations that existed with regard to these instruments were that the data collected was specific to the completion of apprenticeships in the Printing and Packaging Industry of South Africa. The results or conclusions for this study cannot be generalised. However, some of the interpretation or insights gained from this study could potentially assist other researchers in studies of this kind within the Printing and Packaging Industry and other industries within South Africa.

3.9 DELINEATION

The research conducted applies to the Printing and Packaging Industry of South Africa. As it was on a National level the scope for this industry was comprehensive and could be utilised by the entire industry as well as others with similar education systems. Apprenticeships were specifically selected as this was one of the best training methods within this industry. Apprenticeship training incorporates theoretical - and practical learning and therefore encompassed all types of learning within this sector. Learners and Facilitators in this industry were included and therefore evidence from the two primary role players within this learning environment was collected.

3.10 SUMMARY

This chapter discussed the research approach and methodology used in order to obtain the data and outcomes identified by the respondents in order to complete the study. The research philosophy, model for data acquisition and populations were discussed. The two phases of research were discussed in which the study took place and a diagram showing the process flow was depicted. The sampling methods, instrumentation and limitations were also identified and discussed. The next chapter will report on the results of the study.

CHAPTER FOUR: RESULTS

4.1 INTRODUCTION

This chapter describes the study results in two categories: Reliability and validity between the preliminary qualitative and primary quantitative phases of the research. The results are then reported on in the primary quantitative research results, which compares the perspectives of facilitators and learners.

4.2 THE PRELIMINARY QUALITATIVE RESEARCH

The preliminary qualitative research was conducted among facilitators and learners in the Printing and Packaging Industry of South Africa, across all employer organizations, training providers and Technical Theoretical (TT) levels. The qualitative questionnaire identifying factors perceived as affecting success and failure (Appendix C) was sent to *312 learners with a 64.4% response rate (n=201)*. The same qualitative questionnaire was also sent to *27 facilitators across the industry with an 81.48% response rate (n=22)*.

Figure 4.1 illustrates the process flow of the survey administration and analysis of data of both the preliminary and primary surveys.

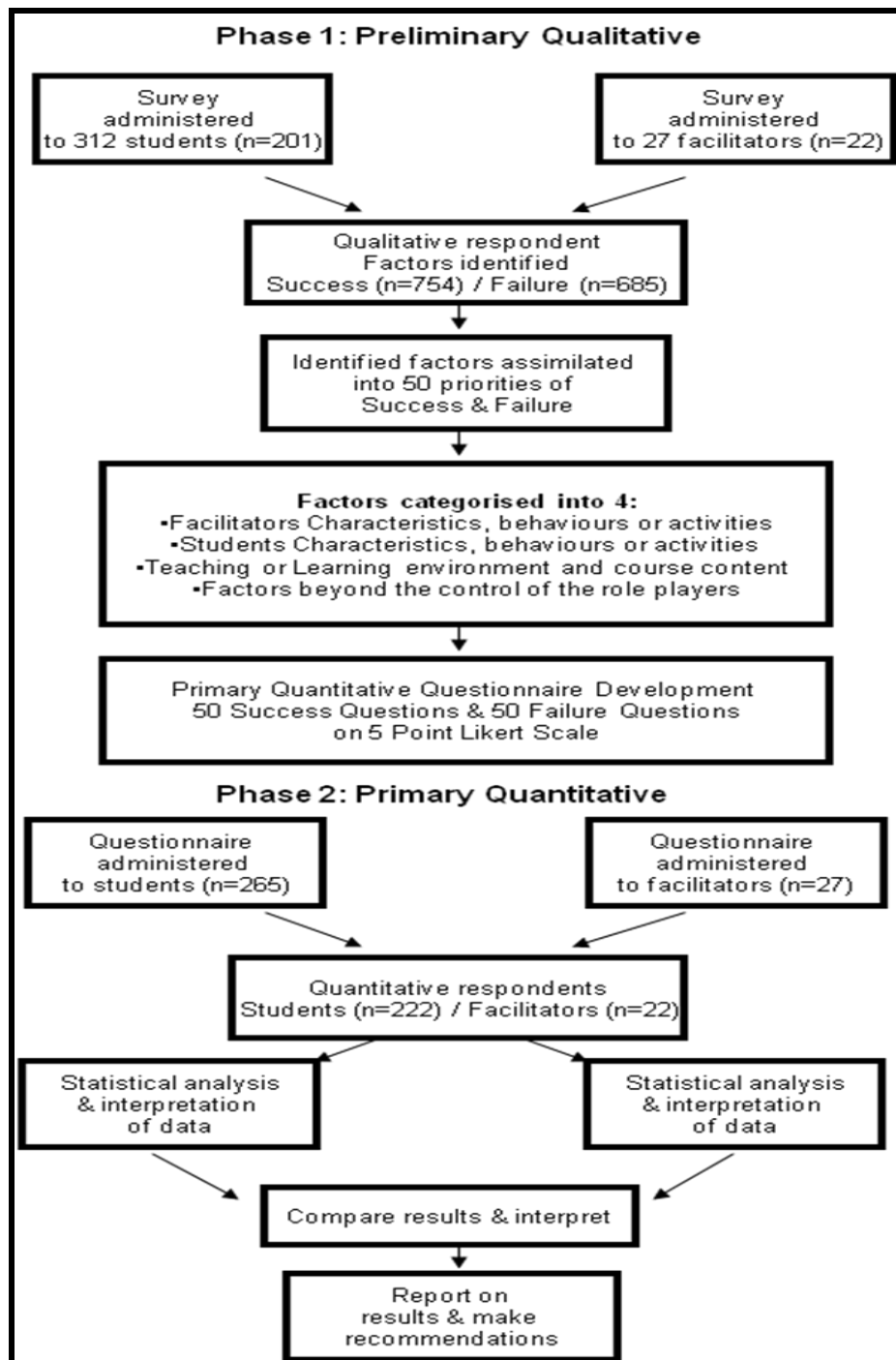


Figure 4.1: Result Process flow Chart

4.2.1 Facilitators

The participating facilitators ranged from occupational-based- to classroom-based facilitators, with some performing both roles. Facilitators were involved in all levels of learning and representative of all the different training institutions and trade directions within the industry. The facilitator respondents and their demographics are depicted in Table 4.1:

Table 4.1: Qualitative respondent demographics

Demographic	Preliminary qualitative	
	Learners	Facilitators
Age: 18 – 22	39	0
23 – 27	66	0
28 – 33	58	0
34 – 38	20	1
39 – 45	9	4
46+	3	17
Unknown	4	0
Male / Female	(86.3%) 178 / 23 (13.7%)	22 / 0
Ethnicity: White	27	16
Coloured	67	4
Black	90	0
Indian	16	1
Other	0	1
Unknown	1	0
Language: Eng	49	11
Afr	62	11
Zulu	25	0
Xhosa	22	0
Sotho	12	0
Tswana	8	0
Other	23	0
TT Level: TT1	23 (45.1%)	N/A
TT2	71 (51.1%)	N/A
TT3	64 (77.2%)	N/A
Inc	43 (100%)	N/A
Com	N/A	N/A
Province: W Cape	84	11
MP	1	0
Lim	2	0
E Cape	4	2
F State	1	1
GP	76	3
KZN	27	5
Unknown	6	0
Response Rate #	201 / 312 (64.4%)	22 / 27 (81.48%)
Response Rate %	64.4	81.48

4.2.2 Learners

The participating learners spanned all three Technical Theoretical (TT) Levels as follows (Table 4.1): *TT1 level - 23 out of 51 learners respondents (45.1%), TT2 Level - 71 out of 139 (51.1%) and TT3 Level - 64 out of 79 (77.2%)*. The preliminary factors were therefore established from learners at all levels in the education system.

Learners at Paarl Media Training Academy who had just commenced their training were identified as “inception” learners. The preliminary qualitative questionnaire was administered to *43 of these learners and 43 responses were received (100%)*. This was done to ensure inclusivity of all learners in the Printing and Packaging Industry of South Africa. The factors identified by these learners were also included in the results of the preliminary research.

Participating learners’ demographics indicates that the learners are predominantly *male with 86.3% respondents and 13.7% female respondents*. They spanned across all age groups, ethnic backgrounds, home languages and all provinces within the scope of the research (Refer to Table 4.1).

4.2.3 Factors Identified

The factors identified by facilitators and learners in the preliminary qualitative research questionnaires are represented in Table 4.2.

Table 4.2: Qualitative respondent factors

Respondent Type	Success Factors	Failure Factors
TT1 Student	222	213
TT2 Student	333	305
TT3 Student	105	79
Facilitators	94	88
Total	754	685

The factors in Table 4.2 were then assimilated into 50 of the priority factors that contribute to success and 50 that contribute to failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa. This was performed through identifying repeated

factors and by combining factors similar in nature. These factors were then correlated with factors identified in previous research (Fraser and Killen, 1994, 2002, 2003 and 2005).

In categorising the factors (Refer to section 2.6), similar trends were prevalent when compared with Killen (1994) and subsequently Fraser and Killen (2003). The following categories were then identified and utilised (Refer to Appendix F):

- (a) Success or Failure Category 1 - referring to facilitator's characteristics, behaviours or activities.
- (b) Success or Failure Category 2 – referring to learner's characteristics, behaviours or activities.
- (c) Success or Failure Category 3 – referring to teaching or learning environment and course content.
- (d) Success or Failure Category 4 – referring to other factors beyond the control of the role players.

The categorisation of factors was concluded to ensure that the information collected was reliable and pertinent to the study and that it could be measured and discussed within the categories. These categories were adopted and altered from Killen (1994) and Fraser and Killen (2003).

4.3 THE PRIMARY QUANTITATIVE RESEARCH

The four categories of factors were randomly assembled into the primary quantitative questionnaire to eliminate trends within the questioning. The primary questionnaire cumulatively consisted of 50 success factor questions and 50 failure factor questions. The respondents were required to rate the questions on a five point Likert-type scale ranging from strongly agree to strongly disagree. In this way the most important factors relating to success and failure as per the learners and facilitators perceptions were identified and quantified and a quantitative questionnaire created (Appendix D).

The same primary quantitative questionnaire was administered to 27 facilitators with an 81.5% response rate (22 / 27) and to 265 learners with an 83.8% response rate as specified in Table 4.3 (222 / 265). Participants were representative of all employer organizations, training providers and Technical Theoretical (TT) levels in South Africa.

4.3.1 Facilitators

The participating facilitators ranged from occupational-based- to classroom-based facilitators, with some performing both roles. Facilitators were involved in all levels of learning and representative of all the different training institutions and trade directions within the industry.

Table 4.3 shows the facilitator respondents and their demographics:

Table 4.3: Quantitative respondent demographics

Demographic	Primary quantitative	
	Learners	Facilitators
Age:		
18 – 22	53	0
23 – 27	81	0
28 – 33	55	0
34 – 38	17	1
39 – 45	13	8
46+	2	13
Male / Female	(81.98%) 182 / 40 (18.02%)	(95.55%) 21 / 1 (4.45%)
Ethnicity:		
White	26	15
Coloured	65	4
Black	125	0
Indian	6	3
Other	0	0
Language:		
Eng	39	15
Afr	58	7
Zulu	48	0
Xhosa	42	0
Sotho	11	0
Tswana	8	0
Other	14	0
Unknown	2	0
TT Level:		
TT1	72 (85.71%)	N/A
TT2	56 (86.15%)	N/A
TT3	60 (76.92%)	N/A
Inc	N/A	N/A
Com	34 (89.47%)	N/A
Province:		
W Cape	76	13
MP	1	0
Lim	2	0
E Cape	23	0
F State	0	0
GP	68	6
KZN	51	3
Unknown	1	0
Response Rate #	222 / 265	22 / 27
Response Rate %	83.8	81.5

Facilitators' demographics (Refer to Table 4.3) show a male dominating industry with only one female. The respondents were white, coloured or from Indian ethnicity. Their home language was either English or Afrikaans and they resided in the provinces of Western Cape, Gauteng and KZN (Refer to Table 4.3).

4.3.2 Learners

The learners that participated in the primary quantitative research were spread across all three Technical Theoretical (TT) Levels (Refer to Table 4.3) and were recorded as follows; *72 out of 84 (85.71%) student respondents were at TT1 level, 56 out of 65 (86.15%) at TT2 level and 60 out of 78 (76.92%) were at TT3 level.*

As mentioned in the preliminary research section (Refer to section 4.2.2), the one training provider namely Paarl Media Training Academy's system of completion is slightly different than that of the other providers and the learners that had just completed their training were identified as "Completion" learners. The primary quantitative questionnaire was also administered to *38 of these learners and 34 of them responded (89.47%)*. This was once again done to ensure inclusivity and the prioritisation of their factors was also recorded in the statistics and results for the primary research.

The prioritising of the primary factors had therefore come from learners at the various levels in the education system. The respondent's ages ranged from 18 to 46+ and was mostly *male with 81.98% respondents and 18.02% of the respondents being female* (Refer to Table 4.3), which shows an increase in female responses from the preliminary research. This is due to transformation and opportunities established for more females in the various trade qualifications (FPM Seta or MAPPP Seta, 2012). Their ethnicity ranged across all categories including; white, coloured, African, Indian accept there was no learners under the category "Other". Home languages identified were across the full range including; English, Afrikaans, Zulu, Xhosa, Sotho, Tswana and Other. The learners were also spread across the various provinces including; Western Cape, Eastern Cape, Free State, Gauteng, Mpumalanga, Limpopo and KZN.

4.4 DESCRIPTIVE ANALYSIS OF THE RESEARCH

The following descriptive analysis will report the results of the primary quantitative research conducted and reports the factors identified by the learners and facilitators in table format for ease of reference.

4.4.1 Analysis of learners and facilitators results with regard to the success and failure factors

4.4.1.1 Learners results with regard to success factors

The analysis of the learners' responses with regard to the factors that lead to the success in learners completing apprenticeships in the Printing and Packaging Industry of South Africa (Refer to Table 4.4), revealed that for *13 of the 50 factors* the learners responded with a mean of above 4.5 out of a possible 5. This was chosen so that at least the top 10 factors could be identified, discussed and utilised. With regard to these factors, 10 of the 13 relate to students or learners characteristics, behaviour or activities; two of them to the teaching or learning environment and course content and one to facilitators characteristics, behaviour or activities.

The findings in Table 4.4 reflect that the learners place more of the reasons for the successful completion of apprenticeships on themselves rather than the other categories.

Table 4.4: Learners rankings of success factors

Rank	Identified factor	N	Min	Max	Mean	Std. Deviation
1	Positive attitude towards work and studies	222	2	5	4.65	0.588
2	Dedication in completing the course	222	2	5	4.64	0.561
3	Self discipline	222	2	5	4.63	0.638
4	Mutual respect between students, lecturers and peers	222	3	5	4.62	0.573
5	Listening attentively and following instructions	222	3	5	4.6	0.552
6	Desire and commitment to learn	222	3	5	4.58	0.579
6	Good self motivation and dedication	222	3	5	4.58	0.587
7	Good communication between coach, facilitator and learners	222	3	5	4.55	0.574
8	Good relations between facilitator and student	222	3	5	4.54	0.621
9	Facilitators that are supportive and motivating	220	1	5	4.53	0.692
10	Proper planning to succeed	222	2	5	4.52	0.664
10	Punctuality and attendance	222	3	5	4.52	0.614
11	Complete homework and revise regularly	220	2	5	4.5	0.652
12	Experienced facilitators who are approachable	222	2	5	4.49	0.657
13	Take pride in oneself and your work	220	2	5	4.48	0.644
13	Facilitators assisting slow learners	220	1	5	4.48	0.785
14	Passion, commitment and interest in a career in printing	222	2	5	4.47	0.697

14	Good work ethics and hard work	220	2	5	4.47	0.637
15	Perseverance and ability to learn new concepts	220	2	5	4.46	0.643
16	Comprehensive and up to date learning material	222	1	5	4.45	0.804
16	Good support structure from company and family	220	1	5	4.45	0.76
16	Ask questions and attention to detail in lectures	220	2	5	4.45	0.599
17	Competent facilitators that are easy to understand	220	3	5	4.43	0.662
18	Competent mentors and training officers in the workplace	220	2	5	4.42	0.646
19	Understanding the work content	222	2	5	4.4	0.649
19	Summarising your work	220	2	5	4.4	0.658
20	Daily / weekly tests to monitor progress of learners	222	1	5	4.39	0.775
21	Good basic education	222	3	5	4.38	0.646
22	Teamwork	222	2	5	4.37	0.773
32	Regular feedback and monitoring learner performance	220	2	5	4.37	0.713
23	Financial assistance and incentives for learners	222	1	5	4.35	0.785
23	Practical exposure to all concepts being taught	220	1	5	4.35	0.859
24	Committed training by workplace instructors	220	2	5	4.33	0.697
25	Teach students various study techniques	222	2	5	4.31	0.747
26	Active participation in the programme	222	2	5	4.3	0.655
27	Conducive learning environment	222	2	5	4.29	0.685
28	Support for placements and employment	222	2	5	4.25	0.772
28	Students literacy levels in English	220	1	5	4.25	0.75
29	More time for studying	222	1	5	4.23	0.882
30	Balance between rest and study	222	1	5	4.22	0.891
31	Day off between national exams	220	1	5	4.2	1.229
32	Acceptable levels of recognition in the workplace	222	2	5	4.17	0.675
32	Use technology for teaching and learning	220	1	5	4.17	0.893
33	Good lifestyle and support system	222	1	5	4.16	0.851
34	Mechanical aptitude	222	1	5	4.14	0.771
35	Frequent group discussions	222	1	5	4.01	0.912
36	Extension of college time to ensure ample study time	222	1	5	4	1.049
37	Sacrifice social and family time and responsibility	220	1	5	3.98	1.07
38	Free periods for self study	222	1	5	3.95	1.008
39	Study groups for peer learning	220	1	5	3.84	0.887

4.4.1.2 Learners results with regard to failure factors

The analysis reveals that the learners' responses regarding the failure factors in learners completing apprenticeships in the Printing and Packaging Industry of South Africa (Refer to Table 4.5) has *10 factors above a mean of 3.59*. This was chosen so that at least the top 10

factors could be identified, discussed and utilised. These factors were again primarily relating to students or learners characteristics, behaviour or activities culminating into seven out of ten factors. The other three are made up of one out of each of the other three categories, which once again indicates that the learners place more responsibility on themselves to succeed by identifying their own characteristics, behaviour or activities.

Table 4.5: Learners rankings of failure factors

Rank	Identified factor	N	Min	Max	Mean	Std. Deviation
1	Not getting sufficient time for studies	220	1	5	3.85	1.25
2	Lack of self study	220	1	5	3.74	1.346
3	Disregard for rules and failure to follow procedures	220	1	5	3.7	1.329
4	Not balancing personal life with studies	220	1	5	3.69	1.298
5	Personal or family problems/responsibilities limiting focus	220	1	5	3.65	1.224
5	Rush through work without proper explanations	220	1	5	3.65	1.361
6	Negative mindset and attitude towards learning	220	1	5	3.63	1.403
7	Lack of persistence and persevering	220	1	5	3.62	1.224
8	Wrong study techniques	220	1	5	3.6	1.295
9	No self motivation	220	1	5	3.59	1.394
10	No off days between National Exams	220	1	5	3.58	1.519
11	Disregard for lecturers and homework	220	1	5	3.57	1.351
11	Overloading and pressurising students with work	220	1	5	3.57	1.31
12	Poor planning	220	1	5	3.55	1.328
12	Lack of commitment to learning	220	1	5	3.55	1.359
13	Fear of asking questions	220	1	5	3.54	1.276
13	Not understanding concepts being taught	220	1	5	3.54	1.315
14	Laziness and apathy	220	1	5	3.52	1.396
14	Not following training process properly	220	1	5	3.52	1.339
15	Ill discipline and ill mannered students	220	1	5	3.51	1.329
16	Demoralised and de-motivated students	220	1	5	3.5	1.35
17	Inadequate support structures	220	1	5	3.49	1.207
17	Not participating and paying attention in class	220	1	5	3.49	1.373
18	Lack of self confidence and self discipline	220	1	5	3.47	1.415
18	No practical examples of subject content	220	1	5	3.47	1.373
19	Insufficient training and production integration	220	1	5	3.46	1.21
20	Poor time management	220	1	5	3.45	1.325
20	Duration of travelling from class to home and back	220	1	5	3.45	1.283
20	Lack of interest and determination in trade	220	1	5	3.45	1.453
21	Not summarising your work and making notes	220	1	5	3.44	1.324
22	Irrelevant study material that is out of date	220	1	5	3.43	1.427

23	Poor timekeeping and attendance	220	1	5	3.42	1.374
24	Language barriers	220	1	5	3.41	1.354
25	Poor or miscommunication between facilitators and students	220	1	5	3.4	1.366
26	Non-conducive learning/working environment	220	1	5	3.38	1.296
27	Distraction due to external factors	220	1	5	3.36	1.243
28	Incompetent and impatient facilitators	220	1	5	3.35	1.424
29	Outdated machinery and equipment	220	1	5	3.34	1.278
29	No regular feedback to students	220	1	5	3.34	1.36
30	Poor academic foundation	220	1	5	3.32	1.253
31	Lack of training control by facilitators	220	1	5	3.3	1.378
31	Poor reading and writing skills	220	1	5	3.3	1.386
31	Facilitators not being approachable	220	1	5	3.3	1.418
32	Lack of employment opportunities	220	1	5	3.27	1.296
33	Thinks classroom based learning is a holiday from work	220	1	5	3.23	1.481
34	Peer pressure	220	1	5	3.12	1.294
35	Negative influence in household and community	220	1	5	3.1	1.333
36	Favouritism from facilitators and in the workplace	220	1	5	3.06	1.383
37	Forced into the wrong career	220	1	5	2.97	1.524
38	Studying away from home	220	1	5	2.8	1.196

4.4.1.3 Facilitators results with regard to success factors

The analysis of the facilitators' results regarding the factors that lead to success in the completion of apprenticeships in the Printing and Packaging Industry of South Africa (Refer to Table 4.6) has 12 factors above a mean of 4.60. This was chosen so that at least the top 10 factors could be identified, discussed and utilised. These factors encompass three of the four categories with six relating to students or learners characteristics, behaviour or activities, four that relates to the teaching or learning environment and course content and two relates to facilitators characteristics, behaviour or activities. This indicates that the facilitators attributed half of the major success factors as identified in the preliminary research to the learners' characteristics, behaviours or activities and the other half to the facilitators' characteristics, behaviours or activities as well as environmental factors or factors relating to the teaching or learning environment. In this regard the facilitators feel that there is more to the success of learners than their own attributes.

Table 4.6: Facilitators rankings of success factors

Rank	Identified factor	N	Min	Max	Mean	Std. Deviation
1	Experienced facilitators who are approachable	22	4	5	4.86	0.351
2	Self discipline	22	4	5	4.82	0.395
3	Punctuality and attendance	22	3	5	4.77	0.528
4	Good communication between coach, facilitator and learners	22	4	5	4.68	0.477
4	Complete homework and revise regularly	22	4	5	4.68	0.477
4	Committed training by workplace instructors	22	4	5	4.68	0.477
5	Understanding the work content	22	3	5	4.64	0.581
5	Good relations between facilitator and student	22	4	5	4.64	0.492
5	Positive attitude towards work and studies	22	2	5	4.64	0.727
5	Comprehensive and up to date learning material	22	3	5	4.64	0.581
5	Competent mentors and training officers in the workplace	22	4	5	4.64	0.492
5	Ask questions and attention to detail in lectures	22	3	5	4.64	0.581
6	Daily / weekly tests to monitor progress of learners	22	4	5	4.59	0.503
6	Mutual respect between students, lecturers and peers	22	4	5	4.59	0.503
6	Dedication in completing the course	22	2	5	4.59	0.734
6	Passion, commitment and interest in a career in printing	22	3	5	4.59	0.59
6	Take pride in oneself and your work	22	3	5	4.59	0.59
6	Facilitators that are supportive and motivating	22	4	5	4.59	0.503
6	Good work ethics and hard work	22	4	5	4.59	0.503
7	Listening attentively and following instructions	22	2	5	4.55	0.739
7	Good self motivation and dedication	22	3	5	4.55	0.596
7	Practical exposure to all concepts being taught	22	4	5	4.55	0.51
7	Competent facilitators that are easy to understand	22	4	5	4.55	0.51
8	Proper planning to succeed	22	4	5	4.5	0.512
8	Desire and commitment to learn	22	1	5	4.5	0.913
8	Good basic education	22	3	5	4.5	0.598
8	Facilitators assisting slow learners	22	4	5	4.5	0.512
9	Regular feedback and monitoring learner performance	22	3	5	4.45	0.671
10	Teamwork	22	3	5	4.36	0.658
10	Active participation in the programme	22	4	5	4.36	0.492
10	Perseverance and ability to learn new concepts	22	3	5	4.36	0.581
11	Teach students various study techniques	22	3	5	4.32	0.646
11	Students literacy levels in English	22	3	5	4.32	0.568
11	Summarising your work	22	1	5	4.32	0.894
12	Good lifestyle and support system	22	3	5	4.27	0.631
12	Conducive learning environment	22	3	5	4.27	0.631

12	Use technology for teaching and learning	22	3	5	4.27	0.703
13	Acceptable levels of recognition in the workplace	22	3	5	4.18	0.501
13	Balance between rest and study	22	3	5	4.18	0.588
14	Support for placements and employment	22	3	5	4.14	0.71
14	Good support structure from company and family	22	3	5	4.14	0.71
15	Mechanical aptitude	22	2	5	4	0.816
16	Frequent group discussions	22	3	5	3.95	0.653
16	Study groups for peer learning	22	3	5	3.95	0.722
17	More time for studying	22	1	5	3.91	0.971
18	Day off between national exams	22	1	5	3.86	1.246
19	Financial assistance and incentives for learners	22	2	5	3.77	0.922
19	Sacrifice social and family time and responsibility	22	2	5	3.77	1.02
20	Free periods for self study	22	2	5	3.59	0.854
21	Extension of college time to ensure ample study time	22	1	5	3.5	1.225

4.4.1.4 Facilitators results with regard to failure factors

The analysis reveals facilitators' attribute the top 10 factors that lead to failure, to students or learners characteristics, behaviour or activities (Refer to Table 4.7). The top 10 factors all had a mean of above 4.45. This was chosen so that at least the top 10 factors could be identified, discussed and utilised. This would indicate that the facilitators' will blame the learners for their failure and takes no responsibility in it or that the environment or course content might not be conducive to learning.

Table 4.7: Facilitators rankings of failure factors

Rank	Identified factor	N	Min	Max	Mean	Std. Deviation
1	Disregard for lecturers and homework	22	2	5	4.5	0.74
1	Lack of commitment to learning	22	4	5	4.5	0.512
1	Laziness and apathy	22	4	5	4.5	0.512
1	Negative mindset and attitude towards learning	22	4	5	4.5	0.512
2	Lack of persistence and persevering	22	4	5	4.45	0.51
2	Lack of self confidence and self discipline	22	3	5	4.45	0.596
2	Ill discipline and ill mannered students	22	2	5	4.45	0.912
2	No self motivation	22	4	5	4.45	0.51
2	Thinks classroom based learning is a holiday from work	22	3	5	4.45	0.671
2	Lack of interest and determination in trade	22	3	5	4.45	0.596
3	Demoralised and de-motivated students	22	3	5	4.41	0.59
4	Lack of self study	22	1	5	4.36	0.902

4	Not participating and paying attention in class	22	3	5	4.36	0.581
4	Not following training process properly	22	4	5	4.36	0.492
5	Disregard for rules and failure to follow procedures	22	1	5	4.32	1.171
5	Poor time management	22	3	5	4.32	0.568
6	Language barriers	22	3	5	4.27	0.767
6	Not understanding concepts being taught	22	3	5	4.27	0.55
6	Poor timekeeping and attendance	22	3	5	4.27	0.767
6	Non-conducive learning/working environment	22	3	5	4.27	0.631
7	Not balancing personal life with studies	22	3	5	4.23	0.752
7	Wrong study techniques	22	3	5	4.23	0.612
7	Poor planning	22	2	5	4.23	0.685
7	Insufficient training and production integration	22	3	5	4.23	0.612
8	Rush through work without proper explanations	22	1	5	4.14	0.99
8	Poor academic foundation	22	2	5	4.14	0.834
8	Forced into the wrong career	22	2	5	4.14	0.889
8	Incompetent and impatient facilitators	22	1	5	4.14	1.037
9	Not summarising your work and making notes	22	1	5	4.09	1.019
9	Irrelevant study material that is out of date	22	1	5	4.09	1.019
9	Fear of asking questions	22	1	5	4.09	0.921
9	Poor reading and writing skills	22	1	5	4.09	1.109
9	No practical examples of subject content	22	1	5	4.09	0.868
10	Facilitators not being approachable	22	1	5	4.05	0.999
11	Not getting sufficient time for studies	22	1	5	3.95	0.899
11	Negative influence in household and community	22	2	5	3.95	0.844
12	Lack of employment opportunities	22	1	5	3.91	1.192
12	Overloading and pressurising students with work	22	2	5	3.91	0.868
13	Lack of training control by facilitators	22	2	5	3.86	0.774
14	Personal or family problems/responsibilities limiting focus	22	2	5	3.82	0.853
14	Inadequate support structures	22	1	5	3.82	0.795
14	Poor or miscommunication between facilitators and students	22	1	5	3.82	1.006
14	No regular feedback to students	22	1	5	3.82	1.097
15	Distraction due to external factors	22	1	5	3.77	0.922
16	Outdated machinery and equipment	22	3	5	3.73	0.767
17	Duration of travelling from class to home and back	22	1	5	3.59	1.141
17	Peer pressure	22	2	5	3.59	0.854
18	Favouritism from facilitators and in the workplace	22	1	5	3.32	1.041
19	Studying away from home	22	1	5	3.27	1.077
20	No off days between National Exams	22	1	5	3.18	1.053

4.5 SIGNIFICANT DIFFERENCES IN RESULTS BETWEEN LEARNERS AND FACILITATORS

4.5.1 The methodology used to identify the significant differences in the research between facilitators and learners

Cross tabulation was used to identify the responses from the facilitators and learners for each priority factor identified in the primary research in Tables 4.8 and 4.9. In order to ensure that the proper correlations are achieved, grouping of the categories on the five-point Likert type scale was necessary. The categories of “strongly agree” and “agree” are grouped together under the heading “Agree” and the categories of “strongly disagree” and “disagree” under the heading “Disagree” on the opposite side of the scale.

The significant differences between the factors identified by the learners in comparison with those of the facilitators on the various levels are identified through the use of SPSS Chi-Square Test for association between two variables. The outcome of the exact p-value (2-sided) is the value which indicates whether there is a significant difference between the responses from the learners in comparison with the responses received from the facilitators on the various priority factors. The following decision rule applied; when the Exact p-value (2-sided) is less than 0.05 it indicates that there is a significant difference in comparative responses.

The results of the responses for each of the success and failure factors as well as the p-value (2-sided) are listed in Table 4.8:

Table 4.8: Comparative responses of learners and facilitators success factors

		Status		Total	Chi-Square
		Student	Facilitator		Exact p-value (2-sided)
Extension of college time to ensure ample study time	Disagree	23	5	28	0.087
	Neutral	41	6	47	
	Agree	158	11	169	
Total		222	22	244	
Self discipline	Disagree	2	0	2	0.489
	Neutral	13	0	13	
	Agree	207	22	229	
Total		222	22	244	

Understanding the work content	Disagree	1	0	1	0.739
	Neutral	17	1	18	
	Agree	204	21	225	
Total		222	22	244	
Good lifestyle and support system	Disagree	7	0	7	0.400
	Neutral	38	2	40	
	Agree	177	20	197	
Total		222	22	244	
More time for studying	Disagree	6	1	7	0.920
	Neutral	45	5	50	
	Agree	171	16	187	
Total		222	22	244	
Daily / weekly tests to monitor progress of learners	Disagree	5	0	5	0.229
	Neutral	22	0	22	
	Agree	195	22	217	
Total		222	22	244	
Mutual respect between students, lecturers and peers	Neutral	10	0	10	0.606
	Agree	212	22	234	
Total		222	22	244	
Proper planning to succeed	Disagree	2	0	2	0.481
	Neutral	15	0	15	
	Agree	205	22	227	
Total		222	22	244	
Support for placements and employment	Disagree	2	0	2	1.000
	Neutral	39	4	43	
	Agree	181	18	199	
Total		222	22	244	
Teach students various study techniques	Disagree	1	0	1	0.585
	Neutral	35	2	37	
	Agree	186	20	206	
Total		222	22	244	
Experienced facilitators who are approachable	Disagree	1	0	1	0.311
	Neutral	17	0	17	
	Agree	204	22	226	
Total		222	22	244	
Punctuality and attendance	Neutral	14	1	15	1.000
	Agree	208	21	229	
Total		222	22	244	
Good relations between facilitator and student	Neutral	15	0	15	0.374
	Agree	207	22	229	
Total		222	22	244	

Listening attentively and following instructions	Disagree	0	1	1	0.059
	Neutral	7	0	7	
	Agree	215	21	236	
Total		222	22	244	
Positive attitude towards work and studies	Disagree	1	1	2	0.151
	Neutral	10	0	10	
	Agree	211	21	232	
Total		222	22	244	
Teamwork	Disagree	3	0	3	0.667
	Neutral	31	2	33	
	Agree	188	20	208	
Total		222	22	244	
Acceptable levels of recognition in the workplace	Disagree	1	0	1	0.387
	Neutral	32	1	33	
	Agree	189	21	210	
Total		222	22	244	
Active participation in the programme	Disagree	1	0	1	0.301
	Neutral	21	0	21	
	Agree	200	22	222	
Total		222	22	244	
Balance between rest and study	Disagree	8	0	8	0.420
	Neutral	36	2	38	
	Agree	178	20	198	
Total		222	22	244	
Conducive learning environment	Disagree	1	0	1	0.780
	Neutral	26	2	28	
	Agree	195	20	215	
Total		222	22	244	
Dedication in completing the course	Disagree	1	1	2	0.126
	Neutral	6	0	6	
	Agree	215	21	236	
Total		222	22	244	
Good communication between coach, facilitator and learners	Neutral	9	0	9	0.611
	Agree	213	22	235	
Total		222	22	244	
Desire and commitment to learn	Disagree	0	1	1	0.062
	Neutral	10	0	10	
	Agree	212	21	233	
Total		222	22	244	

Financial assistance and incentives for learners	Disagree	3	2	5	0.015
	Neutral	31	6	37	
	Agree	188	14	202	
Total		222	22	244	
Free periods for self study	Disagree	15	2	17	0.532
	Neutral	58	8	66	
	Agree	149	12	161	
Total		222	22	244	
Frequent group discussions	Disagree	11	0	11	0.715
	Neutral	49	5	54	
	Agree	162	17	179	
Total		222	22	244	
Good basic education	Neutral	20	1	21	0.703
	Agree	202	21	223	
Total		222	22	244	
Good self motivation and dedication	Neutral	11	1	12	1.000
	Agree	211	21	232	
Total		222	22	244	
Comprehensive and up to date learning material	Disagree	6	0	6	0.873
	Neutral	14	1	15	
	Agree	202	21	223	
Total		222	22	244	
Mechanical aptitude	Disagree	2	1	3	0.365
	Neutral	43	4	47	
	Agree	177	17	194	
Total		222	22	244	
Passion, commitment and interest in a career in printing	Disagree	2	0	2	0.754
	Neutral	20	1	21	
	Agree	200	21	221	
Total		222	22	244	
Good support structure from company and family	Disagree	3	0	3	0.446
	Neutral	21	4	25	
	Agree	196	18	214	
Total		220	22	242	
Perseverance and ability to learn new concepts	Disagree	2	0	2	1.000
	Neutral	12	1	13	
	Agree	206	21	227	
Total		220	22	242	
Competent mentors and training officers in the workplace	Disagree	2	0	2	0.489
	Neutral	13	0	13	
	Agree	205	22	227	

Total		220	22	242	
Practical exposure to all concepts being taught	Disagree	7	0	7	0.168
	Neutral	26	0	26	
	Agree	187	22	209	
Total		220	22	242	
Students literacy levels in English	Disagree	2	0	2	0.358
	Neutral	32	1	33	
	Agree	186	21	207	
Total		220	22	242	
Take pride in oneself and your work	Disagree	2	0	2	1.000
	Neutral	12	1	13	
	Agree	206	21	227	
Total		220	22	242	
Ask questions and attention to detail in lectures	Disagree	1	0	1	1.000
	Neutral	9	1	10	
	Agree	210	21	231	
Total		220	22	242	
Complete homework and revise regularly	Disagree	2	0	2	0.489
	Neutral	13	0	13	
	Agree	205	22	227	
Total		220	22	242	
Day off between national exams	Disagree	24	2	26	0.104
	Neutral	25	6	31	
	Agree	171	14	185	
Total		220	22	242	
Summarising your work	Disagree	2	1	3	0.136
	Neutral	15	0	15	
	Agree	203	21	224	
Total		220	22	242	
Facilitators assisting slow learners	Disagree	7	0	7	0.451
	Neutral	10	0	10	
	Agree	203	22	225	
Total		220	22	242	
Use technology for teaching and learning	Disagree	7	0	7	0.659
	Neutral	39	3	42	
	Agree	174	19	193	
Total		220	22	242	
Facilitators that are supportive and motivating	Disagree	3	0	3	0.535
	Neutral	13	0	13	
	Agree	204	22	226	
Total		220	22	242	

Committed training by workplace instructors	Disagree	2	0	2	0.292
	Neutral	23	0	23	
	Agree	195	22	217	
Total		220	22	242	
Good work ethics and hard work	Disagree	1	0	1	0.432
	Neutral	14	0	14	
	Agree	205	22	227	
Total		220	22	242	
Regular feedback and monitoring learner performance	Disagree	2	0	2	1.000
	Neutral	24	2	26	
	Agree	194	20	214	
Total		220	22	242	
Competent facilitators that are easy to understand	Neutral	21	0	21	0.232
	Agree	199	22	221	
Total		220	22	242	
Sacrifice social and family time and responsibility	Disagree	19	2	21	0.187
	Neutral	44	8	52	
	Agree	157	12	169	
Total		220	22	242	
Study groups for peer learning	Disagree	11	0	11	0.629
	Neutral	65	6	71	
	Agree	144	16	160	
Total		220	22	242	

Table 4.8 indicates that the perceptions amongst facilitators and students with regard to the factors that lead to success are similar as only one factor, merely 2%, showed that the responses realised a significant different between the role players. This factor relates too “financial assistance and incentives for learners”, where 36.36% of the facilitators are neutral or disagree with it leading to success and 84.69% of the learners stating that it will lead to success.

Table 4.9 illustrates the comparative analysis of the respondents with regard to the failure factors concluded in the surveys that were administered.

Table 4.9: Comparative responses of learners and facilitators failure factors

		Status		Total	Chi-Square
		Student	Facilitator		Exact p-value (2-sided)
Disregard for rules and failure to follow procedures	Disagree	40	2	42	0.031
	Neutral	39	0	39	
	Agree	141	20	161	
Total		220	22	242	
Lack of self study	Disagree	43	1	44	0.022
	Neutral	28	0	28	
	Agree	149	21	170	
Total		220	22	242	
Not balancing personal life with studies	Disagree	42	0	42	0.079
	Neutral	34	4	38	
	Agree	144	18	162	
Total		220	22	242	
Wrong study techniques	Disagree	48	0	48	0.015
	Neutral	36	2	38	
	Agree	136	20	156	
Total		220	22	242	
Lack of persistence and persevering	Disagree	40	0	40	0.003
	Neutral	39	0	39	
	Agree	141	22	163	
Total		220	22	242	
Not getting sufficient time for studies	Disagree	35	1	36	0.300
	Neutral	37	3	40	
	Agree	148	18	166	
Total		220	22	242	
Personal or family problems/responsibilities limiting focus	Disagree	39	1	40	0.198
	Neutral	49	7	56	
	Agree	132	14	146	
Total		220	22	242	
Disregard for lecturers and homework	Disagree	49	1	50	0.009
	Neutral	34	0	34	
	Agree	137	21	158	
Total		220	22	242	
Poor planning	Disagree	49	1	50	0.006
	Neutral	39	0	39	
	Agree	132	21	153	
Total		220	22	242	
Rush through work without proper explanations	Disagree	45	2	47	0.038
	Neutral	32	0	32	

	Agree	143	20	163	
Total		220	22	242	
Lack of self confidence and self discipline	Disagree	58	0	58	0.002
	Neutral	36	1	37	
	Agree	126	21	147	
Total		220	22	242	
Demoralised and de-motivated students	Disagree	52	0	52	0.003
	Neutral	41	1	42	
	Agree	127	21	148	
Total		220	22	242	
Poor time management	Disagree	53	0	53	0.002
	Neutral	42	1	43	
	Agree	125	21	146	
Total		220	22	242	
Duration of travelling from class to home and back	Disagree	50	4	54	0.733
	Neutral	59	5	64	
	Agree	111	13	124	
Total		220	22	242	
Inadequate support structures	Disagree	39	1	40	0.044
	Neutral	61	3	64	
	Agree	120	18	138	
Total		220	22	242	
Language barriers	Disagree	55	0	55	0.012
	Neutral	51	4	55	
	Agree	114	18	132	
Total		220	22	242	
Not summarising your work and making notes	Disagree	54	2	56	0.027
	Neutral	40	1	41	
	Agree	126	19	145	
Total		220	22	242	
Ill discipline and ill mannered students	Disagree	48	2	50	0.004
	Neutral	49	0	49	
	Agree	123	20	143	
Total		220	22	242	
Poor academic foundation	Disagree	55	1	56	0.011
	Neutral	57	3	60	
	Agree	108	18	126	
Total		220	22	242	
Insufficient training and production integration	Disagree	46	0	46	0.008
	Neutral	45	2	47	
	Agree	129	20	149	

Total		220	22	242	
Studying away from home	Disagree	86	5	91	0.291
	Neutral	72	8	80	
	Agree	62	9	71	
Total		220	22	242	
Irrelevant study material that is out of date	Disagree	64	2	66	0.019
	Neutral	36	1	37	
	Agree	120	19	139	
Total		220	22	242	
Lack of commitment to learning	Disagree	55	0	55	0.002
	Neutral	30	0	30	
	Agree	135	22	157	
Total		220	22	242	
Fear of asking questions	Disagree	52	1	53	0.026
	Neutral	43	2	45	
	Agree	125	19	144	
Total		220	22	242	
Lack of employment opportunities	Disagree	60	3	63	0.116
	Neutral	61	4	65	
	Agree	99	15	114	
Total		220	22	242	
Not understanding concepts being taught	Disagree	51	0	51	0.003
	Neutral	41	1	42	
	Agree	128	21	149	
Total		220	22	242	
Favouritism from facilitators and in the workplace	Disagree	77	4	81	0.260
	Neutral	61	9	70	
	Agree	82	9	91	
Total		220	22	242	
Lack of training control by facilitators	Disagree	65	1	66	0.040
	Neutral	43	5	48	
	Agree	112	16	128	
Total		220	22	242	
Laziness and apathy	Disagree	58	0	58	0.001
	Neutral	37	0	37	
	Agree	125	22	147	
Total		220	22	242	
Negative mindset and attitude towards learning	Disagree	52	0	52	0.002
	Neutral	31	0	31	
	Agree	137	22	159	
Total		220	22	242	

No self motivation	Disagree	56	0	56	0.002
	Neutral	28	0	28	
	Agree	136	22	158	
Total		220	22	242	
Outdated machinery and equipment	Disagree	55	0	55	0.016
	Neutral	59	10	69	
	Agree	106	12	118	
Total		220	22	242	
Peer pressure	Disagree	70	2	72	0.078
	Neutral	54	8	62	
	Agree	96	12	108	
Total		220	22	242	
Poor or miscommunication between facilitators and students	Disagree	60	2	62	0.164
	Neutral	37	4	41	
	Agree	123	16	139	
Total		220	22	242	
Distraction due to external factors	Disagree	55	1	56	0.088
	Neutral	51	6	57	
	Agree	114	15	129	
Total		220	22	242	
Poor timekeeping and attendance	Disagree	60	0	60	0.015
	Neutral	35	4	39	
	Agree	125	18	143	
Total		220	22	242	
Thinks classroom based learning is a holiday from work	Disagree	74	0	74	0.001
	Neutral	37	2	39	
	Agree	109	20	129	
Total		220	22	242	
Forced into the wrong career	Disagree	91	1	92	0.002
	Neutral	38	4	42	
	Agree	91	17	108	
Total		220	22	242	
Negative influence in household and community	Disagree	69	1	70	0.008
	Neutral	60	5	65	
	Agree	91	16	107	
Total		220	22	242	
Poor reading and writing skills	Disagree	65	2	67	0.073
	Neutral	37	3	40	
	Agree	118	17	135	
Total		220	22	242	
Incompetent and impatient facilitators	Disagree	63	1	64	0.036

	Neutral	43	4	47	
	Agree	114	17	131	
Total		220	22	242	
No practical examples of subject content	Disagree	59	1	60	0.007
	Neutral	38	1	39	
	Agree	123	20	143	
Total		220	22	242	
Facilitators not being approachable	Disagree	72	1	73	0.020
	Neutral	32	4	36	
	Agree	116	17	133	
Total		220	22	242	
Non-conducive learning/working environment	Disagree	57	0	57	0.002
	Neutral	49	2	51	
	Agree	114	20	134	
Total		220	22	242	
Overloading and pressurising students with work	Disagree	52	1	53	0.114
	Neutral	45	6	51	
	Agree	123	15	138	
Total		220	22	242	
No regular feedback to students	Disagree	67	3	70	0.096
	Neutral	45	3	48	
	Agree	108	16	124	
Total		220	22	242	
Not participating and paying attention in class	Disagree	61	0	61	0.005
	Neutral	27	1	28	
	Agree	132	21	153	
Total		220	22	242	
Not following training process properly	Disagree	61	0	61	0.003
	Neutral	22	0	22	
	Agree	137	22	159	
Total		220	22	242	
Lack of interest and determination in trade	Disagree	65	0	65	0.002
	Neutral	32	1	33	
	Agree	123	21	144	
Total		220	22	242	
No off days between National Exams	Disagree	57	3	60	0.002
	Neutral	33	10	43	
	Agree	130	9	139	
Total		220	22	242	

Table 4.9 indicates that 74% of the factors showed, that there is a significant difference between the facilitators and learners perspectives as to what contributes to the failure of learners completing apprenticeships in the Printing and Packaging Industry of South Africa. The conflicting views between the two groups of respondents show how far apart perceptions of factors that relate to failure are with 17 of the 37 factors having a significant difference, had an Exact p-Value (2-sided) of less than 0.005, which is ten times more significant than the standard indicator of a p-Value (2-sided) of 0.05 (refer to section 4.5.1), suggesting a significant difference in respondents.

The results indicate that the respondents have similar opinions with the factors that lead to successful completion of apprenticeship, but have diverse opinions with regard to the factors that lead to failure in the completion of apprenticeships in the Printing and Packaging Industry of South Africa.

Reliability analysis was performed using Cronbach's Alpha and yielded alpha of an acceptable range of 0.7 – 0.95 (Tavakol and Dennick, 2011) for all response categories, with exception of Success Category 4 and Failure Category 2. The reasons for this are clarified:

4.6 CASE PROCESSING SUMMARY FOR SUCCESS AND FAILURE CATEGORIES

The case processing summaries for learner's cases, facilitator cases and combined cases as well as success and failure categories are tabulated in Tables 4.10 – 4.15.

Table 4.10: Case Processing Summary for Learners and Facilitator Success Categories

		N	%
Cases	Valid	242	99.2
	Excluded ^a	2	.8
	Total	244	100.0

Table 4.11: Case Processing Summary for Learners Success Categories

		N	%
Cases	Valid	220	99.1
	Excluded ^b	2	.9
	Total	222	100.0

Table 4.12: Case Processing Summary for Facilitators Success Categories

		N	%
Cases	Valid	22	100.0
	Excluded ^b	0	.0
	Total	22	100.0

Table 4.13: Case Processing Summary for Learners and Facilitators Failure Categories

		N	%
Cases	Valid	240	98.4
	Excluded ^a	4	1.6
	Total	244	100.0

Table 4.14: Case Processing Summary for Learners Failure Categories

		N	%
Cases	Valid	218	98.2
	Excluded ^b	4	1.8
	Total	222	100.0

Table 4.15: Case Processing Summary for Facilitators Failure Categories

		N	%
Cases	Valid	22	100.0
	Excluded ^b	0	.0
	Total	22	100.0

The Tables 4.10 – 4.15 illustrates the case processing summary of all the respondents for all the success and failure factors obtained from all the respondents (learners and facilitators) in the study.

4.7 RELIABILITY ANALYSIS

4.7.1 Success Category 1 Analysis (Facilitators characteristics, behaviours and activities)

The following Table 4.16 indicates the reliability analysis of the learners and facilitators for success category 1 as indicated in section 4.2.3.

Table 4.16: Reliability Analysis Results for Learners and Facilitators Success Category

1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.804	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Teach learners various study techniques	30.89	11.643	.368	.804
Experienced facilitators who are approachable	30.67	11.533	.476	.788
Facilitators assisting slow learners	30.71	10.997	.486	.787
Use technology for teaching and learning	31.01	10.593	.469	.793
Facilitators that are supportive and motivating	30.66	10.641	.666	.760
Committed training by workplace instructors	30.83	10.930	.581	.773
Regular feedback and monitoring learner performance	30.81	10.932	.556	.776
Competent facilitators that are easy to understand	30.75	11.125	.575	.774

The analysis in Table 4.16 of this particular category revealed the Alpha values to be *0.804* for the total of 242 cases in the sample.

Table 4.17 indicates the reliability analysis of the learners alone for success category 1 as indicated in section 4.2.3.

Table 4.17: Reliability Analysis Results for Learners Success Category 1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.802	8

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Teach learners various study techniques	30.79	11.931	.386	.799
Experienced facilitators who are approachable	30.60	11.921	.468	.787
Facilitators assisting slow learners	30.60	11.327	.480	.786
Use technology for teaching and learning	30.92	10.943	.464	.792
Facilitators that are supportive and motivating	30.56	10.969	.662	.759
Committed training by workplace instructors	30.76	11.289	.578	.771
Regular feedback and monitoring learner performance	30.72	11.317	.554	.774
Competent facilitators that are easy to understand	30.66	11.504	.566	.773

The analysis in Table 4.17 revealed that the learners' success factors unaccompanied by facilitators with regard to the category "facilitators characteristics, behaviours or activities" yields Alpha to be 0.802 for the total of 220 cases, as two cases were excluded.

Table 4.18 indicates the reliability analysis of the facilitators alone for success category 1 as indicated in section 4.2.3.

Table 4.18: Reliability Analysis Results for Facilitators Success Category 1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.822	8

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Teach learners various study techniques	31.91	7.991	.121	.865
Experienced facilitators who are approachable	31.36	7.481	.649	.798
Facilitators assisting slow learners	31.73	6.874	.639	.789
Use technology for teaching and learning	31.95	6.426	.542	.805
Facilitators that are supportive and motivating	31.64	6.623	.762	.773
Committed training by workplace instructors	31.55	7.117	.592	.796
Regular feedback and monitoring learner performance	31.77	6.374	.598	.794
Competent facilitators that are easy to understand	31.68	6.703	.715	.779

The analysis in Table 4.18 of the facilitator's success factors unaccompanied by learners with regard to the same category yields an Alpha value of 0.822 for the total of 22 cases. All respondents were utilised in this population.

4.7.2 Success Category 2 Analysis (Learners characteristics, behaviours and activities)

Table 4.19 indicates the reliability analysis of the learners and facilitators for success category 2 as indicated in section 4.2.3.

Table 4.19: Reliability Analysis Results for Learners and Facilitators Success Category

2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.888	22

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self discipline	93.47	60.192	.413	.885
Understanding the work content	93.70	60.392	.366	.887
Mutual respect between learners, lecturers and peers	93.51	60.400	.429	.885
Proper planning to succeed	93.60	59.752	.429	.885
Punctuality and attendance	93.58	60.228	.411	.886
Listening attentively and following instructions	93.52	59.122	.586	.881
Positive attitude towards work and studies	93.47	59.013	.557	.882
Teamwork	93.75	59.061	.417	.886
Active participation in the programme	93.81	58.094	.611	.880
Dedication in completing the course	93.49	59.247	.554	.882
Desire and commitment to learn	93.55	58.530	.594	.881
Good self motivation and dedication	93.53	58.806	.613	.881
Mechanical aptitude	93.99	59.709	.348	.888
Passion, commitment and interest in a career in printing	93.64	58.728	.502	.883
Perseverance and ability to learn new concepts	93.67	58.362	.588	.881
Learners literacy levels in English	93.87	59.609	.383	.887
Take pride in oneself and your work	93.64	59.178	.499	.883
Ask questions and attention to detail in lectures	93.66	58.973	.563	.882
Complete homework and revise regularly	93.61	58.580	.563	.882
Summarising your work	93.73	58.770	.504	.883
Good work ethics and hard work	93.64	58.522	.583	.881
Sacrifice social and family time and responsibility	94.17	56.520	.427	.889

The analysis in Table 4.19 of this category revealed the Alpha values to be 0.888 for the total 242 cases.

Table 4.20 indicates the reliability analysis of the learners alone for success category 2 as indicated in section 4.2.3.

Table 4.20: Reliability Analysis Results for Learners Success Category 2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.892	22

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self discipline	93.43	61.323	.448	.888
Understanding the work content	93.66	61.804	.382	.890
Mutual respect between learners, lecturers and peers	93.45	61.755	.451	.888
Proper planning to succeed	93.54	61.209	.432	.889
Punctuality and attendance	93.54	61.811	.409	.889
Listening attentively and following instructions	93.45	60.669	.613	.885
Positive attitude towards work and studies	93.40	60.434	.588	.885
Teamwork	93.69	60.691	.405	.890
Active participation in the programme	93.76	59.389	.624	.883
Dedication in completing the course	93.43	60.830	.571	.885
Desire and commitment to learn	93.49	60.059	.639	.884
Good self motivation and dedication	93.47	60.323	.621	.884
Mechanical aptitude	93.92	61.299	.350	.891
Passion, commitment and interest in a career in printing	93.60	60.251	.498	.887
Perseverance and ability to learn new concepts	93.60	59.710	.605	.884
Learners literacy levels in English	93.81	61.239	.370	.891
Take pride in oneself and your work	93.59	60.746	.496	.887
Ask questions and attention to detail in lectures	93.61	60.530	.564	.885
Complete homework and revise regularly	93.56	60.083	.558	.885
Summarising your work	93.66	60.453	.514	.886
Good work ethics and hard work	93.59	60.024	.579	.885
Sacrifice social and family time and responsibility	94.09	58.061	.425	.893

The analysis in Table 4.20 of the learners' success factors unaccompanied by facilitators with regard to this category revealed the Alpha values to be 0.892 for the total 220 cases, as two cases were excluded.

Table 4.21 indicates the reliability analysis of the facilitators alone for success category 2 as indicated in section 4.2.3.

Table 4.21: Reliability Analysis Results for Facilitators Success Category 2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.850	22

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self discipline	93.91	51.039	-.209	.859
Understanding the work content	94.09	48.372	.162	.852
Mutual respect between learners, lecturers and peers	94.14	48.695	.152	.852
Proper planning to succeed	94.23	46.946	.401	.845
Punctuality and attendance	93.95	46.426	.460	.843
Listening attentively and following instructions	94.18	45.299	.420	.844
Positive attitude towards work and studies	94.09	46.563	.295	.849
Teamwork	94.36	44.433	.587	.837
Active participation in the programme	94.36	47.004	.410	.844
Dedication in completing the course	94.14	45.076	.447	.843
Desire and commitment to learn	94.23	44.851	.354	.848
Good self motivation and dedication	94.18	45.299	.544	.839
Mechanical aptitude	94.73	45.351	.364	.847
Passion, commitment and interest in a career in printing	94.14	45.361	.542	.839
Perseverance and ability to learn new concepts	94.36	46.528	.398	.844
Learners literacy levels in English	94.41	45.110	.601	.838
Take pride in oneself and your work	94.14	45.361	.542	.839
Ask questions and attention to detail in lectures	94.09	45.325	.557	.839
Complete homework and revise regularly	94.05	45.474	.671	.837
Summarising your work	94.41	43.491	.486	.841
Good work ethics and hard work	94.14	45.361	.649	.837
Sacrifice social and family time and responsibility	94.95	42.426	.493	.842

Within this category referring to the facilitator's success factors unaccompanied by learner's yields an Alpha of 0.850 for the total 22 cases as depicted in Table 4.21.

4.7.3 Success Category 3 Analysis (Teaching or Learning environment and course content)

Table 4.22 indicates the reliability analysis of the learners and facilitators for success category 3 as indicated in section 4.2.3.

Table 4.22: Reliability Analysis Results for Learners and Facilitators Success Category

3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.795	15

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Extension of college time to ensure ample study time	59.71	34.512	.410	.784
More time for studying	59.46	36.565	.321	.790
Daily / weekly tests to monitor progress of learners	59.25	37.559	.291	.791
Good relations between facilitator and student	59.10	37.592	.389	.785
Acceptable levels of recognition in the workplace	59.49	36.342	.506	.778
Conducive learning environment	59.36	36.722	.446	.781
Good communication between coach, facilitator and learners	59.09	37.341	.458	.782
Financial assistance and incentives for learners	59.36	35.758	.455	.779
Free periods for self study	59.74	34.170	.484	.776
Frequent group discussions	59.64	35.309	.450	.779
Comprehensive and up to date learning material	59.18	36.448	.398	.784
Competent mentors and training officers in the workplace	59.22	36.885	.458	.781
Practical exposure to all concepts being taught	59.29	35.826	.431	.781

Day off between national exams	59.49	35.338	.272	.802
Study groups for peer learning	59.81	34.993	.492	.776

Within this category the analysis of both the learners and facilitators success factors yields Alpha to be 0.795 for the total 242 cases in the sample in Table 4.22.

Table 4.23 indicates the reliability analysis of the learners alone for success category 3 as indicated in section 4.2.3.

Table 4.23: Reliability Analysis Results for Learners Success Category 3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.792	15

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Extension of college time to ensure ample study time	59.76	34.976	.391	.782
More time for studying	59.52	36.589	.333	.786
Daily / weekly tests to monitor progress of learners	59.36	37.520	.295	.788
Good relations between facilitator and student	59.20	37.613	.390	.782
Acceptable levels of recognition in the workplace	59.58	36.454	.490	.776
Conducive learning environment	59.45	36.952	.424	.780
Good communication between coach, facilitator and learners	59.19	37.388	.457	.779
Financial assistance and incentives for learners	59.40	36.058	.453	.777
Free periods for self study	59.80	34.364	.468	.775
Frequent group discussions	59.73	35.183	.458	.776
Comprehensive and up to date learning material	59.29	36.134	.431	.778
Competent mentors and training officers in the workplace	59.33	36.935	.455	.778
Practical exposure to all concepts being taught	59.40	35.676	.440	.777
Day off between national exams	59.55	35.810	.245	.802
Study groups for peer learning	59.91	35.075	.483	.774

The analysis in Table 4.23 revealed Alpha to be 0.792 for the total of 220 cases, two being excluded, within this category.

Table 4.24 indicates the reliability analysis of the facilitators alone for success category 3 as indicated in section 4.2.3.

Table 4.24: Reliability Analysis Results for Facilitators Success Category 3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.842	15

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Extension of college time to ensure ample study time	59.23	31.041	.604	.826
More time for studying	58.82	37.584	.189	.854
Daily / weekly tests to monitor progress of learners	58.14	38.314	.355	.838
Good relations between facilitator and student	58.09	37.991	.419	.836
Acceptable levels of recognition in the workplace	58.55	35.879	.775	.822
Conducive learning environment	58.45	35.117	.704	.821
Good communication between coach, facilitator and learners	58.05	37.379	.544	.832
Financial assistance and incentives for learners	58.95	34.141	.537	.828
Free periods for self study	59.14	33.361	.678	.818
Frequent group discussions	58.77	37.422	.367	.838
Comprehensive and up to date learning material	58.09	40.087	.048	.851
Competent mentors and training officers in the workplace	58.09	36.658	.651	.827
Practical exposure to all concepts being taught	58.18	37.680	.454	.835
Day off between national exams	58.86	31.647	.541	.832
Study groups for peer learning	58.77	34.565	.670	.821

Analysis in Table 4.24 revealed that in this particular category Alpha is *0.842* for the total of 22 cases.

4.7.4 Success Category 4 Analysis (Other factors beyond the control of the role players)

Table 4.25 indicates the reliability analysis of the learners and facilitators for success category 4 as indicated in section 4.2.3.

Table 4.25: Reliability Analysis Results for Learners and Facilitators Success Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.673	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Good lifestyle and support system	17.26	4.276	.463	.605
Support for placements and employment	17.19	4.755	.364	.650
Balance between rest and study	17.22	4.315	.413	.632
Good basic education	17.05	4.981	.407	.634
Good support structure from company and family	17.01	4.386	.503	.588

Within this category the analysis in Table 4.25 for both the learners and facilitators success factors yields an Alpha value of *0.673* for the total of 242 cases. Although this alpha is 0.7 as described by Tavakol and Dennick (2011), it merely refers to the fact that the test length was too short, including only five items.

Table 4.26 indicates the reliability analysis of the learners alone for success category 4 as indicated in section 4.2.3.

Table 4.26: Reliability Analysis Results for Learners Success Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.668	5

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Good lifestyle and support system	17.29	4.326	.466	.595
Support for placements and employment	17.20	4.885	.354	.646
Balance between rest and study	17.24	4.394	.401	.630
Good basic education	17.08	5.076	.412	.625
Good support structure from company and family	17.00	4.525	.493	.585

The analysis in Table 4.26 of the learners' success factors unaccompanied by facilitators with regard to the category revealed and Alpha value of 0.668 for the total 220 cases as two cases were excluded. This once again is indicative of a limited test length.

Table 4.27 indicates the reliability analysis of the facilitators alone for success category 4 as indicated in section 4.2.3.

Table 4.27: Reliability Analysis Results for Facilitators Success Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.763	5

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Good lifestyle and support system	16.95	3.855	.472	.741
Support for placements and employment	17.09	3.610	.484	.740
Balance between rest and study	17.05	3.665	.626	.691
Good basic education	16.73	4.113	.393	.765
Good support structure from company and family	17.09	3.134	.709	.650

The analysis of the facilitator's success factors unaccompanied by learners with regard to this category in Table 4.27 presented Alpha to be 0.763 for the total 22 cases. The analysis in this case is the 0.7 figure as described by Tavakol and Dennick in 2011. If one excludes two of the five items it falls beneath the 0.7 mark, which again refers to the fact that the test length was too short, only including five items.

4.7.5 Failure Category 1 Analysis (Facilitator's characteristics, behaviours and activities)

Table 4.28 indicates the reliability analysis of the learners and facilitators for failure category 1 as indicated in section 4.2.3.

Table 4.28: Reliability Analysis Results for Learners and Facilitators Failure Category 1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.927	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Rush through work without proper explanations	20.28	47.608	.701	.923
Favouritism from facilitators and in the workplace	20.89	47.369	.700	.923
Lack of training control by facilitators	20.63	45.406	.831	.910
Incompetent and impatient facilitators	20.55	44.517	.846	.908
Facilitators not being approachable	20.60	44.500	.845	.908
Overloading and pressurising learners with work	20.38	48.746	.665	.926
No regular feedback to learners	20.60	45.906	.797	.913

Within this category the analysis in Table 4.28 of both the learners and facilitators failure factors presented Alpha to be 0.927 for the total of 240 cases.

Table 4.29 indicates the reliability analysis of the learners alone for failure category 1 as indicated in section 4.2.3.

Table 4.29: Reliability Analysis Results for Learners Failure Category 1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.930	7

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Rush through work without proper explanations	20.00	49.922	.710	.926
Favouritism from facilitators and in the workplace	20.59	49.644	.708	.926
Lack of training control by facilitators	20.35	47.547	.836	.914
Incompetent and impatient facilitators	20.29	46.870	.852	.912
Facilitators not being approachable	20.34	46.890	.846	.913
Overloading and pressurising learners with work	20.08	50.985	.675	.929
No regular feedback to learners	20.32	48.125	.813	.916

The analysis of the learners' failure factors unaccompanied by facilitators with regard to this category yields the Alpha values to be 0.930 in Table 4.29 for the total 218 cases, as four cases were excluded.

Table 4.30 indicates the reliability analysis of the facilitators alone for failure category 1 as indicated in section 4.2.3.

Table 4.30: Reliability Analysis Results for Facilitators Failure Category 1

Reliability Statistics^a

Cronbach's Alpha	N of Items
.797	7

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Rush through work without proper explanations	23.09	16.848	.407	.793
Favouritism from facilitators and in the workplace	23.91	15.610	.540	.769

Lack of training control by facilitators	23.36	16.814	.586	.765
Incompetent and impatient facilitators	23.09	14.848	.652	.746
Facilitators not being approachable	23.18	14.251	.781	.720
Overloading and pressurising learners with work	23.32	17.942	.332	.803
No regular feedback to learners	23.41	16.063	.440	.790

The analysis in Table 4.30 revealed Alpha to be 0.797 for the total of 22 cases in this sample.

4.7.6 Failure Category 2 Analysis (Learners characteristics, behaviours and activities)

Table 4.31 indicates the reliability analysis of the learners and facilitators for failure category 2 as indicated in section 4.2.3.

Table 4.31: Reliability Analysis Results for Learners and Facilitators Failure Category 2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.979	23

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Disregard for rules and failure to follow procedures	79.22	588.873	.751	.978
Lack of self study	79.18	586.906	.785	.978
Not balancing personal life with studies	79.23	591.859	.738	.978
Wrong study techniques	79.32	590.795	.760	.978
Lack of persistence and persevering	79.27	587.613	.858	.978
Disregard for lecturers and homework	79.32	584.393	.818	.978
Poor planning	79.34	585.674	.829	.978

Lack of self confidence and self discipline	79.40	581.864	.828	.978
Demoralised and de-motivated learners	79.38	584.478	.832	.978
Poor time management	79.43	585.860	.825	.978
Not summarising your work and making notes	79.47	587.756	.778	.978
Ill discipline and ill mannered learners	79.36	585.411	.816	.978
Lack of commitment to learning	79.33	583.635	.832	.978
Fear of asking questions	79.37	594.844	.699	.979
Not understanding concepts being taught	79.35	586.915	.815	.978
Laziness and apathy	79.35	580.729	.859	.977
Negative mindset and attitude towards learning	79.24	578.728	.891	.977
No self motivation	79.29	578.925	.894	.977
Poor timekeeping and attendance	79.46	584.751	.805	.978
Thinks classroom based learning is a holiday from work	79.62	581.609	.780	.978
Poor reading and writing skills	79.58	586.488	.763	.978
Not participating and paying attention in class	79.38	583.258	.835	.978
Lack of interest and determination in trade	79.42	581.784	.805	.978

The analysis in Table 4.31 of both the learners and facilitators failure factors with regard to this category presented Alpha to be 0.979 for the total of 240 cases. The analysis in this case is above the acceptable value for alpha of 0.95 as described by Tavakol and Dennick (2011). This is due to the fact that the test length was too long including 23 items and shows that the test length could be shortened.

Table 4.32 indicates the reliability analysis of the learners alone for failure category 2 as indicated in section 4.2.3.

Table 4.32: Reliability Analysis Results for Learners Failure Category 2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.979	23

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Disregard for rules and failure to follow procedures	77.56	612.432	.765	.978
Lack of self study	77.51	609.845	.795	.978
Not balancing personal life with studies	77.56	614.884	.745	.979
Wrong study techniques	77.66	614.042	.760	.978
Lack of persistence and persevering	77.63	611.092	.858	.978
Disregard for lecturers and homework	77.68	608.107	.818	.978
Poor planning	77.68	608.558	.834	.978
Lack of self confidence and self discipline	77.77	605.293	.827	.978
Demoralised and de-motivated learners	77.74	608.102	.829	.978
Poor time management	77.78	609.313	.823	.978
Not summarising your work and making notes	77.81	611.130	.788	.978
Ill discipline and ill mannered learners	77.72	609.343	.820	.978
Lack of commitment to learning	77.69	606.997	.831	.978
Fear of asking questions	77.70	618.581	.703	.979
Not understanding concepts being taught	77.70	609.889	.817	.978
Laziness and apathy	77.72	604.029	.857	.978
Negative mindset and attitude towards learning	77.60	601.485	.892	.978
No self motivation	77.65	601.695	.895	.978
Poor timekeeping and attendance	77.82	608.335	.804	.978
Thinks classroom based learning is a holiday from work	78.01	605.995	.773	.978
Poor reading and writing skills	77.93	610.013	.774	.978
Not participating and paying attention in class	77.74	606.708	.830	.978
Lack of interest and determination in trade	77.79	605.494	.799	.978

The analysis in Table 4.32 of the learners' failure factors unaccompanied by facilitators with regarding this particular category revealed that Alpha value is 0.979 for the total of 218

cases, as four cases were excluded. Alpha being high indicates a prolonged test length once again, including 23 items and suggests that the test length could have been reduced (Tavakol and Dennick (2011)).

Table 4.33 indicates the reliability analysis of the facilitators alone for failure category 2 as indicated in section 4.2.3.

Table 4.33: Reliability Analysis Results for Facilitators Failure Category 2

Reliability Statistics^a

Cronbach's Alpha	N of Items
.862	23

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Disregard for rules and failure to follow procedures	95.68	60.799	.476	.857
Lack of self study	95.64	65.290	.326	.861
Not balancing personal life with studies	95.77	66.470	.312	.860
Wrong study techniques	95.77	66.374	.412	.857
Lack of persistence and persevering	95.55	67.498	.370	.858
Disregard for lecturers and homework	95.50	65.119	.435	.856
Poor planning	95.77	65.708	.421	.857
Lack of self confidence and self discipline	95.55	66.831	.377	.858
Demoralised and de-motivated learners	95.59	64.920	.587	.852
Poor time management	95.68	66.608	.424	.857
Not summarising your work and making notes	95.91	62.563	.450	.856
Ill discipline and ill mannered learners	95.55	63.784	.429	.857
Lack of commitment to learning	95.50	68.262	.276	.860
Fear of asking questions	95.91	62.277	.532	.852
Not understanding concepts being taught	95.73	68.113	.269	.861
Laziness and apathy	95.50	66.643	.473	.856
Negative mindset and attitude towards learning	95.50	66.262	.520	.855

No self motivation	95.55	66.355	.511	.855
Poor timekeeping and attendance	95.73	63.636	.542	.852
Thinks classroom based learning is a holiday from work	95.55	64.831	.516	.854
Poor reading and writing skills	95.91	63.610	.340	.863
Not participating and paying attention in class	95.64	64.052	.695	.849
Lack of interest and determination in trade	95.55	64.450	.633	.851

The analysis in Table 4.33 yields Alpha to be 0.862 for the total of 22 cases within this category, regarding the facilitator's failure factors which is unaccompanied by learners.

4.7.7 Failure Category 3 Analysis (Teaching or Learning environment and course content)

Table 4.34 indicates the reliability analysis of the learners and facilitators for failure category 3 as indicated in section 4.2.3.

Table 4.34: Reliability Analysis Results for Learners and Facilitators Failure Category 3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.926	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not getting sufficient time for studies	31.22	86.282	.676	.921
Insufficient training and production integration	31.55	84.483	.787	.916
Irrelevant study material that is out of date	31.57	84.171	.661	.922
Outdated machinery and equipment	31.69	84.616	.742	.918
Peer pressure	31.90	85.987	.662	.922
Poor or miscommunication between facilitators and learners	31.63	81.583	.817	.913

No practical examples of subject content	31.55	80.877	.842	.912
Non-conducive learning/working environment	31.60	83.797	.765	.916
Not following training process properly	31.46	83.781	.744	.917
No off days between National Exams	31.51	86.828	.513	.931

Within this category the analysis in Table 4.34 of both the learners and facilitators failure factors revealed Alpha to be 0.926 for the total of 240 cases.

Table 4.35 indicates the reliability analysis of the learners alone for failure category 3 as indicated in section 4.2.3.

Table 4.35: Reliability Analysis Results for Learners Failure Category 3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.930	10

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not getting sufficient time for studies	30.80	91.413	.684	.924
Insufficient training and production integration	31.19	89.564	.797	.919
Irrelevant study material that is out of date	31.20	89.443	.665	.926
Outdated machinery and equipment	31.30	89.685	.745	.921
Peer pressure	31.52	91.080	.672	.925
Poor or miscommunication between facilitators and learners	31.23	86.512	.826	.917
No practical examples of subject content	31.17	85.887	.845	.916
Non-conducive learning/working environment	31.25	88.853	.777	.920
Not following training process properly	31.11	88.823	.749	.921

No off days between National Exams	31.05	91.592	.535	.934
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Analysis in Table 4.35 yields an Alpha value of 0.930 for the learners' failure factors unaccompanied by facilitators with regard to the category. The total cases are 218, as four cases were excluded due to incomplete surveys.

Table 4.36 indicates the reliability analysis of the facilitators alone for failure category 3 as indicated in section 4.2.3.

Table 4.36: Reliability Analysis Results for Facilitators Failure Category 3

Reliability Statistics^a

Cronbach's Alpha	N of Items
.772	10

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not getting sufficient time for studies	35.36	17.576	.624	.725
Insufficient training and production integration	35.09	21.515	.210	.776
Irrelevant study material that is out of date	35.23	18.279	.432	.755
Outdated machinery and equipment	35.59	18.729	.567	.737
Peer pressure	35.73	20.589	.228	.779
Poor or miscommunication between facilitators and learners	35.50	17.214	.582	.730
No practical examples of subject content	35.23	17.327	.693	.716
Non-conducive learning/working environment	35.05	21.855	.141	.782
Not following training process properly	34.95	21.569	.278	.770
No off days between National Exams	36.14	17.076	.563	.733

The analysis of the facilitator's failure factors unaccompanied by learners with regard to this category in Table 4.36, presented the Alpha value to be 0.772 for the total of 22 cases.

4.7.8 Failure Category 4 Analysis (Other factors beyond the control of the role players)

Table 4.37 indicates the reliability analysis of the learners and facilitators for failure category 3 as indicated in section 4.2.3.

Table 4.37: Reliability Analysis Results for Learners and Facilitators Failure Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.905	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Personal or family problems/responsibilities limiting focus	29.73	72.910	.686	.895
Duration of travelling from class to home and back	29.95	72.311	.672	.895
Inadequate support structures	29.88	72.626	.716	.893
Language barriers	29.90	70.450	.719	.892
Poor academic foundation	29.98	73.071	.650	.897
Studying away from home	30.54	79.262	.362	.913
Lack of employment opportunities	30.05	73.005	.621	.899
Distraction due to external factors	29.99	71.435	.747	.891
Forced into the wrong career	30.30	68.537	.704	.894
Negative influence in household and community	30.20	69.870	.765	.889

The analysis in Table 4.37 of both the learners and facilitators failure factors with regard to this category presented the Alpha value to be 0.905 for the total of 240 cases.

Table 4.38 indicates the reliability analysis of the learners alone for failure category 4 as indicated in section 4.2.3.

Table 4.38: Reliability Analysis Results for Learners Failure Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.906	10

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Personal or family problems/responsibilities limiting focus	29.21	74.250	.704	.894
Duration of travelling from class to home and back	29.43	74.089	.678	.895
Inadequate support structures	29.38	73.803	.743	.892
Language barriers	29.44	72.303	.715	.893
Poor academic foundation	29.52	75.163	.641	.898
Studying away from home	30.05	81.753	.345	.914
Lack of employment opportunities	29.58	75.314	.610	.900
Distraction due to external factors	29.49	73.210	.746	.891
Forced into the wrong career	29.87	70.500	.700	.894
Negative influence in household and community	29.75	71.701	.764	.890

The analysis in Table 4.38 revealed that Alpha yields 0.906 for the learners' failure factors unaccompanied by facilitators for this category. A total of 218 cases are in this sample, as four cases were excluded.

Table 4.39 indicates the reliability analysis of the facilitators alone for failure category 4 as indicated in section 4.2.3.

Table 4.39: Reliability Analysis Results for Facilitators Failure Category 4

Reliability Statistics^a

Cronbach's Alpha	N of Items
.843	10

Item-Total Statistics^a

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Personal or family problems/responsibilities limiting focus	34.86	32.123	.408	.840
Duration of travelling from class to home and back	35.09	26.848	.732	.808
Inadequate support structures	34.86	35.266	.095	.862
Language barriers	34.41	31.206	.584	.826
Poor academic foundation	34.55	30.926	.558	.827
Studying away from home	35.41	29.968	.481	.835
Lack of employment opportunities	34.77	26.946	.682	.814
Distraction due to external factors	34.91	28.563	.749	.809
Forced into the wrong career	34.55	30.736	.535	.829
Negative influence in household and community	34.73	30.684	.578	.826

Within this category, the analysis in table 4.39 of the facilitator's failure factors unaccompanied by learners, yields Alpha to be 0.843 for the total of 22 cases.

4.8 LIST OF FINDINGS

The following is a list of the main findings in the results of the study that leads to success and failure of learners completing apprenticeships in the Printing and Packaging Industry of South Africa.

4.8.1 Factors leading to success

The findings noted that with the factors leading to success there were a lot of synergy between the responses from the facilitators and learners. The findings identified were as follows:

- (i) Facilitators believe the responsibility for learner's success lies primarily with themselves (Refer to section 5.3.1 and Table 4.6).
- (ii) Facilitators also believe the environment created in which learning takes place plays a vital role to success of the learners (Refer to section 5.3.1 and Table 4.6).

- (iii) Facilitators also believe that they themselves make a vital contribution to the success of learners (Refer to section 5.3.1 and Table 4.6).
- (iv) Learners believe that their success lies primarily with themselves (Refer to section 5.3.2 and Table 4.4).
- (v) Learners also believe the environment in which learning takes place leads to success (Refer to section 5.3.2 and Table 4.4).
- (vi) Learners indicated facilitators also influence their success (Refer to section 5.3.2 and Table 4.4).
- (vii) Synergy exists amongst the facilitators and learners regarding the factors that lead to success (Refer to section 5.6.1, Table 4.4 and 4.6).

4.8.2 Factors leading to failure

The factors that lead to failure noted that there were disparate views between the factors that lead to failure between the responses received from facilitators and learners. The findings identified the following:

- (i) Facilitators put the responsibility squarely on the learners for their failure (Refer to section 5.4.1 and Table 4.7).
- (ii) Facilitators take no responsibility on themselves for the failure of learners (Refer to section 5.4.1 and Table 4.7).
- (iii) Learners take most responsibility on themselves for failure (Refer to section 5.4.2 and Table 4.5).
- (iv) Learners believe that the facilitators are also somewhat responsible for their failure (Refer to section 5.4.2 and Table 4.5).
- (v) Learners also believe that there are factors beyond their control that lead to failure (Refer to section 5.4.2 and Table 4.5).
- (vi) Disparate views exist between the facilitators and learners regarding the factors that lead to failure (Refer to section 5.6.2, Table 4.5 and 4.7).

4.9 SUMMARY

The chapter illustrated the descriptive analysis of the research, the significant differences between the learner's perceptions and those of the facilitators as well as the reliability analysis of the research concluded. A list of the main findings was created for ease of reference. The following chapter will provide a detailed discussion of the findings.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 INTRODUCTION

This chapter will include a discussion on the findings in this study in term of the qualitative and quantitative research administered to the respondents and how it has an influence on learning.

5.2 THE PERCEPTIONS OF SUCCESS AND FAILURE

The preliminary qualitative research questioned the perceptions of the learners and facilitators with regard to success and failure within the scope of apprenticeships in the Printing and Packaging Industry of South Africa. This was done to understand what the role-players responses were based on just the minimum requirements (Killen, 1994) This was done in order to identify the value learners and facilitators place on the outcomes of the qualifications so that:

- the success factors can be positively emphasised to increase the quality of skills development by incorporating it into the new curriculum development strategy process;
- the failure factors can be reduced or eliminated in order to increase the quality of skills development by incorporating it into the new curriculum development strategy process;
- strategies can be developed in order to synergise the perceptions that could potentially ensure cooperation in the delivering of quality skills development; and
- we can address most if not all the factors in the development plans or strategies that will be formulated that could potentially ensure that quality skills development can be delivered.

5.2.1 Facilitators perceptions of success and failure

The facilitators perceive that success is attributed to the acquisition of the qualification and then the application of technical - and theoretical knowledge acquired to such an extent that you can demonstrate the competencies of an independent functioning productive employee. Further to this, they also believe that success relates to a person wanting to further their knowledge as well as impart their knowledge to others to promote the skills level within their environment.

Failure is seen as the apprentice not being able to complete his or her practical - and theoretical training to the standards required. The facilitators chose to list various reasons for this in their explanations of what leads to failure such as poor initial skills level and standard of learners, not showing initial interest in the job, being happy to stagnate in a position without ambition to grow, absenteeism and lack of good communication skills. These reasons are similar to previous research (Killen 1994, Fraser and Killen 2003, Fraser and Killen 2005 and Hill et al 2003).

It would appear that the facilitators in their perceptions of success are focused on the more global approach to learning and advancement within the industry, which could possibly be related to the experience they have therein (Prosser and Trigwell 1991). When referring to failure they tend to be focused on the standard pass rate rather than more holistic factors that could potentially have an impact on failure. The reasons for this could possibly be the fact that it is the basic need that facilitators have for the learners, that has been entrenched over many years.

5.2.2 Learners perceptions of success and failure

It is apparent from the study that the learner's perceptions of success and failure are narrow minded and short sighted. As the research was conducted in a theoretical classroom based environment, the perceptions were mostly based on what reflects positive or negative in this environment (Prosser and Trigwell, 1991). Examples are; study hard for success, motivated to study, learn from the start to be successful, pass all TT blocks, etc. Learners do not see or focus on the bigger picture of career paths and this could be indicative of the fact that their maturity levels and education standards are low. The learners based their success upon achieving the minimum requirements set out by the FPM Seta for the qualification. Finding work in the field of study came through prominently, this is especially true for the third year level students who are about to qualify. These factors are all illustrating that future vision by the learners are limited and that a deeper meaningful approach to teaching and learning is necessary.

Failure was mostly attributed to not achieving goals due to lack of planning and studying, once again reiterating the fact that they only base it on classroom based learning instead of the entire process. This is harmonious with the perceptions that the facilitators have regarding the failure factors, indicating that there is synergy between them in this regard.

5.3 FACTORS LEADING TO SUCCESS

5.3.1 Facilitators

The facilitator respondents rated the 50 factors that contribute to success and the means ranged from 4.86 to 3.5 out of 5. This resulted in a difference between the highest and lowest factor means of 1.36 or 27.2%, indicating that there were considerable differences between the factor “experienced facilitators who are approachable” ranked highest and “extension of college time to ensure ample study time” ranked lowest. The facilitators claimed that the success of learners completing apprenticeships is more with the students or learners characteristics, behaviour or activities than the other categories. These included self discipline, punctuality and attendance, complete homework and revise regularly, understanding the work content, positive attitude towards work and studies, asking questions and attention to detail in lectures (Refer to section 4.8.1).

Only one of these relates to cognitive ability as the other five factors relates more to behavioural and / or procedural activities. This indicates that the facilitators believe that if the learners comply with the policies and procedures of studying and behave in a like manner they will more than likely be successful, rather than base their success on their ability to understand the content of the work. This relates to the “Surface approach” to learning identified by Prosser and Trigwell, (1991).

The respondents identified four factors that fall within the scope of the teaching or learning environment and course content including good communication between coach, facilitator and learners, good relations between facilitator and student, comprehensive and up to date learning material and competent mentors and training officers in the workplace.

Three of these refer to the environment that is created in the learning process and relations that needs to be built between the role-players. It eludes to open communication, following the correct protocols, controlling the process and ensuring assistance throughout the process of learning (Refer to section 4.8.1). This appropriate blend of physical factors, social or emotional support systems and course characteristics were also identified by Lammers and Murphy, (2002), as cited by Hill, Lomas and MaGregor, (2003). The facilitators feel that it is imperative that learners understand that there are avenues for them to utilise if they struggle and are not able to grasp the content of the work completely.

The other two factors that were prioritised by the facilitators reflect upon themselves and they feel that they also are in a position to ensure success of the learners. These include experienced facilitators who are approachable and committed training by workplace instructors (Refer to section 4.8.1). These are crucial for the delivery of quality training and skills development according to the facilitators as the former was ranked the highest factor that would lead to success of the learners with a mean of 4.86 out of 5. The latter ranked combined 4th with a mean of 4.68 out of 5. This indicates that the facilitators believe that they are highly responsible for the success of the learners and therefore they would have to conform to these attributes or competencies.

5.3.2 Learners

The learner respondents rated the 50 factors that contribute to success and the means ranged from 4.65 to 3.84 out of 5, resulting in a difference between the highest and lowest factor means of 0.81 or 16.2%. This indicates that the differences between the factor “positive attitude towards work and studies” ranked highest and “study groups for peer learning” ranked lowest, was not as vast and therefore the 50 factors are all contributors to success to an extent. The respondents indicated that the success of the learners lies mostly with themselves than the other categories.

Nine of the 12 factors identified as priorities that lead to success by the learners are students or learners characteristics, behaviour or activities. These include positive attitude towards work and studies, dedication in completing the course, self discipline, mutual respect between students, lecturers and peers, listening attentively and following instructions, desire and commitment to learn, good self motivation and dedication, proper planning to succeed and punctuality and attendance. They believe that it is up to them to ensure that they are successful by proper planning, being positively, motivated and ensuring they comply with the rules and regulations of the environment in which the learning takes place (Refer to section 4.8.1).

Five of the 12 top factors listed by the learners are also in the top 12 factors prioritised by the facilitators, which proves the synergy that exists amongst the two categories of responses that may lead to the success of learners. .

The learner respondents identified two factors that fall within the scope of the teaching or learning environment and course content including; good communication between coach, facilitator and learners, good relations between facilitator and student (Refer to section

4.8.1). These two are exactly what the facilitators also identified which illustrates that the environment in which learning takes place are both important to the learners and facilitators and as such both role-players will have to ensure that these attributes exist within this environment.

The other factor “Facilitators that are supportive and motivating” is relating to the facilitators characteristics, behaviour or activities and speaks to the fact that the role-players wants to create that environment that is supportive, motivating and positive to ensure success (Refer to section 4.8.1).

5.4 FACTORS LEADING TO FAILURE

5.4.1 Facilitators

The facilitator respondents rated the 50 factors that contribute to failure and the means ranged from 4.5 to 3.18 out of 5. This resulted in a difference between the highest and lowest factor means of 1.32 or 26.4%, indicating that there were considerable differences between the factor “disregard for lecturers and homework” ranked highest and “no off days between national exams” ranked lowest. The facilitators indentified 10 factors that have a mean above 4.45 out of 5. All of these factors relates to the students or learners characteristics, behaviour or activities, indicating that the facilitators put the responsibility for the learners failure squarely on the learners themselves (Refer to section 4.8.2). The factors that they feel are most likely to lead to failure are as follows; disregard for lecturers and homework, lack of commitment to learning, laziness and apathy, negative mindset and attitude towards learning, lack of persistence and persevering, lack of self confidence and self discipline, ill discipline and ill mannered students, no self motivation, the student thinks classroom based learning is a holiday from work and lack of interest and determination in trade.

The facilitators stated that lack of intrinsic motivation and persistence, non adherence to rules and regulations and not having a passion for the trade in which you study are the biggest contributors to failure within apprenticeship training in the Printing and Packaging Industry of South Africa. They seem to take no responsibility for the failures of learners and also perceive that the environment in which the learning take place has no significant impact on the learner’s failing (Refer to section 4.8.2). Unfortunately, this does not speak to an inclusive approach to learning and teaching. In Prosser and Trigwell, (1997), they reflect on how important it is to improve the quality of learning by using a deeper approach to learning, through creating an environment of good teaching, clear goals and supportive structures.

The attitude of the facilitators in the responses of this study, although not explicitly stated, will not create an environment wherein learning and teaching that lead to success takes place.

5.4.2 Learners

The learner respondents rated the 50 factors that contribute to success and the means ranged from 3.85 to 2.8 out of 5, resulting in a difference between the highest and lowest factor means of 1.05 or 21.0%. This indicates that the differences between the factors “not getting sufficient time for studies” ranked highest and “studying away from home” ranked lowest, was also quite different in relation to one another. The respondents seemed to take more personal responsibility for the factors relating to failure in the completion of apprenticeships as they identified seven out of the top 10 factors relating to failure on students or learners characteristics, behaviour or activities (Refer to section 4.8.2). These include; lack of self study, disregard for rules and failure to follow procedures, not balancing personal life with studies, negative mindset and attitude towards learning, lack of persistence and perseverance, wrong study techniques and no self motivation. They believe that a lack of motivation, persistence and self study and a positive attitude towards your work and learning are crucial to success.

The most critical factor that led to failure as perceived by learners is “not getting sufficient time for studies” this is also in association with the facilitator’s characteristic, behaviour or activities factor of “rush through work without proper explanations” (Refer to section 4.8.2). It could be that because of the facilitators haste through the work that the learners perhaps perceive the time limit being a negative or influential factor on failure. This is definitive perceptions created by the learning process and environment in which learning takes place. For example, if a facilitator “rushes through the work without proper explanations”, the learner would perceive this as “not getting sufficient time for studies”, because they would spend too much time trying to grasp the concepts prior to actual learning.

The last factor that the learners perceive as a possible contributor to failure is “personal or family problems or responsibilities limiting focus” (Refer to section 4.8.2). This is the first factor that is identified by both learners and facilitators that fall within the category of “other factors beyond the control of the role players”. Unfortunately there is not much a person can do around this problem, but one can motivate the learners to overcome these by focusing on the end result as well as creating an environment where these types of problems can be identified and possible support can be given.

5.5 ADULT LEARNING AND ITS IMPLICATIONS

We deal in the realm of “Andragogy” or Adult learning and therefore need to address learning in a like-manner (Pew, S. 2007). Pew, (2007), stated that a learner must know why something is important to learn and then relate the learning to their experiences. People will not learn until they are motivated and ready to learn. In the training of apprenticeships in the Printing and Packaging Industry the facilitators have always taken on the role of motivating the learners to learn and succeed, but if “Andragogy” is the realm of learning then this methodology will not be successful. The learner’s motivation to learn lies primarily with the learner, with the support of the facilitator and learning institution (Pew, 2007). It is argued that if the facilitator or learning institution is the primary source of motivation then it could create an environment where the success of the learner does not lie with him or her, but with someone else. The facilitators are therefore more responsible to ensure that they use strategies in order for the learners to be self motivated, specifically if their motivation is intrinsic. If their motivations are extrinsic then anyone or anything around them would motivate them.

Houde, (2006); takes the principles as cited by Knowles et al. (1998) and arranges them in a different way, explaining why adults need to learn by these principles in order to be successful and complete their studies. Incorporating it into this study it is viewed as follows and is based on these six principles:

- Motivation: This relates to intrinsic motivation and is based on the inherent desires we as humans have to succeed.
- The need to know: Adults need to know why they have to learn something prior to doing so. They are either told or led to discover why learning needs to take place.
- Learner’s self concept: The adult learner is responsible for their own lives and therefore for their own decisions. Adults have a need to be self directing, but sometimes in a learning environment it has an opposite effect as this need is not fulfilled.
- Role of the learner’s experience: Adults have a number of diverse experiences and they relate to these experiences differently than children do. Facilitators need to utilise these experiences and relate it to the content in order to facilitate the learning process. Adults identify with their experience and if ignored or devalued, could lead to the adult learner feeling rejected.
- Readiness to learn: Adults live their lives whilst learning and sometimes situations calls for them to prioritise certain learning experiences differently. For example, learning to deal with death cannot happen prior to death or learning to be a father prior to having a child. However, you can choose to further your career and plan it accordingly.

- Orientation to learning: This principle states that adults are life-centred, problem-centred or task-centred in their approach to learning. This means that adults either learn if they have problems, especially life problems and tasks to perform.

Gravett, (2005) also speaks of orientation of learning in a more neurological way, drawing from the fact that new knowledge can only be imparted if there is already existing knowledge that the brain can connect with. Facilitators need to connect with the knowledge the learner already has within the brain and then use that as a base for imparting new knowledge. Brainstorming a particular topic prior to actually teaching or explaining it, is a good methodology of acquiring what knowledge the learners currently have on a particular topic before trying to make the neurological connections between prior knowledge and new knowledge as discussed in Gravett (2005).

5.6 MAIN FINDINGS

When comparing the facilitator's and learner's responses or opinions of the most important factors that contribute to a learner's success or failure on completion of apprenticeships in the Printing and Packaging Industry there is either common understanding or alternatively disparate views on why some learners are successful and others not.

5.6.1 Factors contributing to success

Identifying synergy and establishing significant differences between the respondent's factors for success and failure is evident in the research. There is conclusive synergy between the factors that relate to success between the respondents as only one factor (2%) had a significant difference in responses (Refer to section 4.8.1). This indicates that the facilitators and learners believe that the contributing factors to success are similarly viewed and therefore can be motivated and further explored in order to improve on the success of the learners.

The diversity of the learners is evident in their demographical, ethnical and geographical data. The learner respondents ranged across all ethnic groups, male and female, city to rural areas and from 18 to 50 years of age. Given the wide spectrum of learners, it is positive that the agreements between facilitators and the wide scope in age and diversity of learners still remain and have synergy throughout the success factors. This reflects that the factors that lead to success are entrenched in the learners and facilitators mindset and merely needs to be mentored, manifested and explored in order to increase the relevance and successfulness thereof.

5.6.2 Factors contributing to failure

The factors contributing to failure is of concern as there are disparate views between the respondents. It is found that 37 out of the 50 factors (74%) indicated a significant difference. In analysing the responses, the top 10 factors that facilitators indicated would lead to failure, all have significant differences in responses to the learners (Refer to section 4.8.2), which indicates that what the facilitators feel is important to the process of success is completely different to that which the learners perceive as being important. Within the learners, the 10 factors that potentially lead to failure seven of the 10 factors have significant differences, which mean that the facilitators are in agreement with some of the factors that lead to failure identified by the learners.

The three factors leading to failure in which both facilitators and learners agree, were “not getting sufficient time for studies”, “not balancing personal life with studies” and “personal or family problems or responsibilities limiting focus”. As the role-players are in agreement about these factors, it can be addressed or they could be more attentive to these factors after having being made aware of it. On the other hand, the seven top 10 factors identified by the learners that have significant differences to that of the facilitators need to be addressed as the disparate views leads to a misunderstanding or misalignment between the delivery of content and the way in which the learners receive and retain the information.

In Fraser et al, (2003). the findings are in agreement with the above, considering that the factors that were identified by the facilitators and tertiary education students leading to success were more in correlation with one another than that of the failure factors. Even though the facilitators and learners might have had some of the factors within their top factors the one role-player believes that a certain factor is more important to success than the other role-player (Fraser et al, 1999 and 2003).

5.6.3 Environment in which learning takes place

The findings of Leveson, (2004) relate to student characteristics and also identified formal support mechanisms as perceived by learners and facilitators contributing to success or failure. This is in correlation with the findings within this study with regard to some of the aspects of training and education in the Printing and Packaging Industry of South Africa. Correlation was also found between the perceptions of the facilitator and their approach to teaching and that a student-centred approach that promotes growth and change will have a positive effect on learning.

The responses from the different role-players indicate that the type of teaching and learning style adopted in apprenticeship training in the Printing and Packaging Industry leans towards a “Surface approach” to learning as identified by Trigwell and Prosser, (1991). It identifies a rote learning environment in order to reproduce the information. The facilitator’s responses regarding their perceptions of success indicated that a “deeper approach” to learning needs to be adopted in the environment in which they work (practical training), so that learners will seek meaning in what they learn (theoretical training) in order to understand.

5.7 SUMMARY

This chapter discussed the views of learners and facilitators on their perceptions of what success and failure means to them. It included a discussion on the views that facilitators and learners have regarding what factors lead to success and failure in the completion of their apprenticeships in the industry. It summarised what adult learning is and what implications it has on learning in this environment and the main findings were discussed. The next chapter will now discuss the recommendations made based on the findings in chapter 4 and 5.

CHAPTER SIX: RECOMENDATIONS AND CONCLUSIONS

6.1 INTRODUCTION

This chapter will include the limitations of the study, recommendations and conclusions.

6.2 LIMITATIONS OF THE STUDY FINDINGS

The most essential limitation in this study is the fact that this study is exploratory in the context of the Printing and Packaging Industry, the literature is limited; the populations within the study are small and therefore it was not always possible to use certain types of analysis, such as factor analysis. This is limiting in the sense that certain information was not derived from the research in this study.

The qualitative preliminary research questionnaire, required the participants to name five factors contributing to the success and or failure of completing apprenticeships. It is impossible to ascertain if the most important or even all the factors were identified in the evaluation. Therefore, it is difficult to draw cause-effect conclusions from the results beyond this particular study population.

The research is specific to apprenticeships in the Printing and Packaging Industry of South Africa and therefore the findings could potentially not be generalised to other populations or samples in other industries. Reliable, valid and specific feedback is problematic due to the fact that the education level of the learners adversely affected their ability to read, comprehend, interpret and answer the questionnaires appropriately

6.3 CONCLUSION

This study successfully investigated the problem that was identified for the research to commence. The study investigated the understanding of apprenticeship training and development within the Printing and Packaging Industry and identified the pertinent factors that influenced the successfulness of these programs (Refer to section 1.2.2). The research also successfully identified what the learners and facilitators perceptions are of success and failure in completing apprenticeships in this particular industry (Refer to section 1.2.4). Although the perceptions differentiate between the learners and facilitators there is still the common understanding or perception of achieving the bare minimum requirements to be successful and if not it is classified as failure. In some instances the respondents touched on

more influential characteristics and attributes that meant success and failure to them. It is important that we take note of these factors as it could potentially influence future training and development.

The differences in the responses from learners in comparison with facilitators can mostly be drawn from the life and learning experiences that the facilitators have. It would seem that majority of the learners do not see the apprenticeship as part of a bigger plan for their lives, but rather than a “must do right now” situation. This is influenced by things such as social economic factors, a manifestation of the previously disadvantaged past as well as unemployment rates in South Africa.

Pertinent intrinsic and environmental factors were successfully identified in this study, concerning relevant role players and described their influences on participation in the learning environment. These factors highlight personal development and support structures that provide insight and understanding of the aspects that can impact training and development. The conditions and factors which influence adult learning need to be more clearly and holistically comprehended as determinants of meaningful learning and participation. This will impact future skills development and the delivery thereof in an environment conducive for learning (Refer to section 1.2.4).

Significant differences were identified in the factors that contribute to failure in the respondent comparisons between learners and facilitators. These indicated areas where improvement in policies and procedures, attitudes of both role players towards a common goal and supportive environments could potentially lead to more successful and skilled learners. The comparative analysis of the success factors indicates that there is synergy between the respondents and this is mainly due to the learners taking most responsibility onto themselves for their own success (Refer to section 1.2.4). However, within the responses, although not the most important, there is an underlying trend towards the environment created in which the learning takes place. This information should be utilised in order to increase the success of learners even further.

The Printing and Packaging Industry is currently in the process of reviewing all curricula and material, the process of learning and the delivery of training and skills development for the industry, which will influence the way in which learning takes place in the future. This study and its findings will potentially contribute to the mindset and parameters in which this new developments will take place. This could potentially lead to positive outcomes as these factors that were identified could be addressed going forward.

6.4 RECOMMENDATIONS

6.4.1 Recommendations for the industry

Incorporating the findings in this study and the principles of Andragogy as discussed by Houde (2006), in the curriculum development strategic process currently conducted by the Development Quality Partner (DQP) may lead to more successful outcomes for learners in this industry. The researcher further recommends the identification of strengths and weaknesses of curriculum content and delivery. This can be combined with the factors identified in this research that lead to success and failure and can be translated to program planners, implementers and educators. The significant differences that exist between the facilitators and learners must be addressed in order to cultivate an environment of inclusivity within the learning process. This concept will promote a better understanding of adult learning components and barriers to improve program design, curriculum diversity and training strategies that consider the diversity of learners in South Africa.

6.4.2 Recommendations for further research

This study was exploratory in nature as it is the first of its kind in the Printing and Packaging Industry of South Africa. It is hoped that this study could potentially be the catalyst to further investigations and studies within this industry and specifically towards the exploration of apprenticeship training and the introduction of this throughout several industries in our economy. It is further hoped that further research into these findings will improve the knowledge - and information base for research, in this sector. The research conducted applies to the Printing and Packaging Industry of South Africa and it is on a national level so it is as comprehensive as can be. The findings can however be utilised as a basis for further investigation in other industries as well.

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APPENDICES

APPENDIX A: COMPETENCY BASED MODULAR SYSTEM (BUBBLE CHART)

SKILLS LEVEL	TRAINING PHASE	EVALUATION EVALUERING	MODULAR TRAINING PROGRAMME MODULERE OPLEIDINGSPROGRAM	ON THE JOB TRAINING MODULES
6	OPLEIDINGS FASE			IN-TAAK OPLEIDINGSMODULES
5	PHASE 4 FASE 4	MAPP CONTROLLED PRACTICAL TRADE TEST /MAPP-BEHEERDE PRAKTIESE AMBAGTOETS		
4	PHASE 3 FASE 3	COMPANY TEST (PROGRESS) MAATSKAPPYTOETS (VORDERING)		
3	PHASE 2 FASE 2	MAPP CONTROLLED PHASE 2 TEST /MAPP-BEHEERDE PRAKTIESE FASE 2 TOETS		
2	PHASE 1 FASE 1	COMPANY TEST (PROGRESS) MAATSKAPPYTOETS (VORDERING) = DENOTES OPTIONAL = CHOOSE METHOD APPLICABLE TO YOUR COMPANY - CHOOSE PATH		Issue No 3 February 2007

APPENDIX B: LEARNING GUIDE, KNOWLEDGE CHECK SHEET, TASK ANALYSIS AND COMPETENCY CHECKLIST

COMPETENCY

Understand the cost factor of the equipment and the materials which are used in the relevant trade area.

WHY YOU NEED TO KNOW THIS

With this knowledge the student / apprentice will have a greater awareness of the overall cost factors involved in the printing process.

OBJECTIVE

After completing this learning guide the apprentice will realise why it is essential to fulfil his designated tasks in a competent and responsible manner, thereby saving costs in materials and equipment.

HOW YOU WILL LEARN THIS THEORY

By completing the learning guide and then answering the question sheet

A) THE COST OF PAPER

Paper today is a costly item and therefore ways and means are upper most in the printers' mind on how to reduce the consumption of this commodity.

If we look at the overall picture, paper remains a major cost factor in the printers' budget.

B) THE REDUCTION OF PAPER WASTE WITH REGARD TO PRINTED AND TRIPPING WASTE

As we have learned in Section "A", the cost of paper is a major part of a printers' cost and it is vital that waste is cut to a minimum.

How can this be done?

On the machine, waste can be reduced by the minder being more efficient in his set-ups. Making sure that whenever possible, to set adjustments and settings without using paper, i.e. setting ink ducts while the machine is in wash mode and not running the press with the paper going through it. Another tip is when a job has expensive paper use a set-up paper of cheaper type thereby saving the more expensive paper. Make sure that whenever possible to use a paper of as close a size as possible to the job size to save trim or stripping waste. These are only a few examples but clearly the idea is to minimise waste. Thus, the lower your waste, the higher your profitability.

C) THE COST OF INK

Ink is another major factor on the printers' balance sheet. Again we have varying cost levels due to types of ink ie. basic blacks, process colours, special mixes or U.V. (ultra violet) inks. Also the quantities required contribute to the cost factor. On average the cost of ink is 5% of the overall cost factor of a job.

Again waste is the keyword here.

- ✓ Never use an expensive process ink where a basic colour will do.
- ✓ Never open a new tin of ink where one has already been opened.
- ✓ When matching a colour use small amounts of ink to match your colour to minimise the chance of wasting a lot of ink.

Remember that neat and clean habits are important to operate as an efficient machine minder.

D) THE PROPER TREATMENT OF PRINTING BLANKETS

The majority of printing blankets, when new, have talc on the printing surface. This must be washed off with water before printing. Apart from talc, paper dust and gum are cleaned by water only. After washing the blanket with water, use a high quality blanket wash to eliminate oil or grease. Solvents which are used to remove ink must be used with extreme caution. The most generally used solvents are fast drying mineral spirits.

The damaging of blankets can take place if excessive amounts of water penetrate underneath the blanket packing. Maintaining a good ink and water balance will minimise build up on the blanket. Monitor build up, if any and clean before excessive build up occurs.

Blankets **MUST NOT** be cleaned with "ink knives", metal and plastic tools.

Ensure that the waste being run through the press is checked for damaged or turned over sheets.

Use soft cloths or sponges for blanket washing.

IT IS ADVISABLE TO WASH BLANKETS

- a) when print quality deteriorates
- b) when changing paper or stack
- c) when changing work shifts
- d) at the end of press operations for the day
- e) when press is idle for any length of time

STORAGE

To get the best performance from blankets, they must be properly stored and handled. There are two approved methods for storing blankets.

- a) store the blankets in their original shipping tubes and stand the tubes on end.
- b) alternatively, if this is not possible, lay them flat, face to face or back to back.

Blankets should be kept in cool dry area and away from heat sources such as electrical equipment and away from direct sunlight.

E) CARE OF RUBBER ROLLERS

A roller has a metal core, bearing ends and is covered to a desired thickness or diameter with a rubber compound of a special hardness. The machine minder must know:

1. Which roller goes where in the inking system.
2. How to place and set up each roller in the system.
3. How to check bearing ends on the roller.
4. What chemicals or washes to clean the rollers with. I
5. When a roller surface has lost its properties and needs to be recovered.

It is most important that, as with everything else on his machine, the machine minder takes proper care of his rubber rollers, ensuring that they last longer and fulfil their proper function.

F) THE CORRECT REGARD FOR TOOLS, EQUIPMENT AND MACHINERY PROCEDURES TO AVOID UNNECESSARY DAMAGE

The above heading means that a machine minder to be good and successful in his profession he must have pride in himself and his job.

He must therefore take proper care of his tools. Without his tools -a machine minder cannot work on his machine -without his machine a machine minder cannot work. Without his equipment, rollers, blankets, paper, inks, etc he cannot perform his task.

To become a successful and professional journeyman a machine minder must learn to be neat, tidy and meticulous in setting up systems to check and maintain all materials and equipment used by him daily. His tools and equipment are his responsibility and it is for his benefit that they are kept in good condition.

G) ADMINISTRATION PROCEDURES USED TO INDICATE THE DAILY PRODUCTION AND CONSUMPTION FIGURES OF MATERIALS USED IN THE DEPARTMENT

To keep track of the daily production figures within his Company, every machine minder fills in a daily time sheet. On this he records his chargeable and not-chargeable times which add up to the total hours of his shift.

The term chargeable hours means hours that can be charged against a job and are called productive hours.

The term non-chargeable hours refers to hours that cannot be charged against a job and are known as non-productive hours.

To remain profitable it is essential to keep the non-chargeable hours to a minimum.

To keep track of the consumption of materials we use a form called a requisition.

This form has each job's work ticket number, client's name, the estimated material usage for the job and the actual materials issued to the press for the job. In the case of paper requisitions there is also a place for returns or credits to the paper store. To aid the efficient use of materials it is vital that the machine minder fills in his requisitions correctly.

Please refer to the examples overleaf of a daily time sheet and a paper requisition form.

TRAINEE NAME: DATE:

PLEASE ANSWER THE QUESTIONS BELOW BY CIRCLING THE CORRECT ANSWER.

1. The cost of paper is ?
 - a) relatively minor cost for the printer
 - b) not worth bothering about
 - c) the same for all papers
 - d) a major cost factor for the printer

2. The reduction of paper waste is ?
 - a) only the foreman's concern
 - b) only the manager's concern
 - c) only the concern of the machine minder
 - d) the concern of everyone involved

3. The cost of ink is ?
 - a) an insignificant item
 - b) the same price for all inks
 - c) a costly and varied price structured item
 - d) of no importance to the machine minder

4. Printing blankets are ?
 - a) To keep the machine minders warm
 - b) an item which lasts forever
 - c) an integral part of the machine which require careful attention
 - d) easily replaced as they are very cheap

5. Rubber rollers are used to ?
- a) flatten out paper
 - b) convey ink and water
 - c) gather dust
 - d) keep the paper tight
6. Looking after tools, machinery and equipment is ?
- a) of no importance when the machine minder has time
 - b) a vital part of the company's system
 - c) only for the foreman's benefit
 - d) a waste of everyone's time
7. Filling in daily time sheets and requisitions is ?
- a) done only when the machine minder has time
 - b) a vital part of the company's system
 - c) only for the foreman's benefit
 - d) a waste of everyone's time

LITHOGRAPHY PAPER SECTION (205)		CODE ISSUE 3 FEB 2007 PE1
COMPETENCY CHECK LIST		
NAME:	DATE:	

TASK	Basic knowledge of productivity and economics
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LEARNING OBJECTIVE
To understand the cost factor of equipment and materials and the importance of correct use and care of them.

CHECKLIST	YES	NO
<p>Did the trainee:</p> <p>1) successfully complete the learning guide?</p> <p>2) understand the overall concept of the cost factors relevant to this profession?</p>		

FIRST ATTEMPT	SECOND ATTEMPT	THIRD ATTEMPT

SIGANTURE OF INSTRUCTOR: TRAINEE:

APPENDIX C: QUALITATIVE QUESTIONNAIRE

Dear Reader / Research Partner:

I am currently doing a study regarding the comparisons of facilitator and learners perceptions of the factors that influence the performance of learners completing Apprenticeships in the Printing and Packaging industry of South Africa. This is in completion of my Masters degree in Business Administration.

The purpose of this study is to determine the critical factors/reasons that influence the performance of learners from both perspectives in order to draw a comparative analysis. The data collected will then determine if there are similarities and/or differences between the perceptions of the role-players. The outcomes or conclusions of the study may lead to a better understanding of the critical factors/reasons that influence performance from both facilitators and learners perspectives.

A strategic management plan can then be designed to emphasise positive- and reduce or eliminate negative factors. This strategic plan could potentially improve the success rate in practical and academic performance within Apprenticeship training in the Printing and Packaging industry of South Africa. The potential increase in success rate amongst Apprentices will ensure an increase in the level of skills and a higher level of quality skills development in Apprenticeship training in this and possibly other industries. The information collected will be utilised beyond this study as I will pursue my doctorate hereafter, in which these strategic plans will be developed and relevant information used. Your input is crucial in this study and the results will be made available to those interested.

The questionnaire will comprise three questions which will take approximately 20 minutes to complete. I would also like to assure confidentiality to all the respondents.

Please complete the details requested below as specific as possible. Be critical and specific to ensure that the outcomes of the results are credible, reliable and applicable. This is your chance to make a real positive contribution to skills development in our industry.

For any further information you can contact me on the details below:

Office hours: 021 9491562

Email: etienne@impitraining.co.za

Thank you for your participation

A handwritten signature in black ink, appearing to read 'Etienne Bester', is centered on the page. The signature is fluid and cursive, with a prominent initial 'E'.

Etienne Bester

St no: 198066600

Name and Surname: _____ Age: _____

Gender: _____ Ethnicity/Race: _____ Home Language: _____

Province: _____ Facilitator / Student: _____ TT Level (if student): _____

1. In your view, what is success and what is failure in the completion of Apprenticeships in the Printing and Packaging industry of South Africa?

Success: _____

Failure: _____

2. List the five factors / reasons that you think are most important in contributing to students' success in the completion of Apprenticeships in South Africa. (i.e. Regular attendance at lectures)

3. List the five factors / reasons that you think are most likely to lead to student failure in the completion of Apprenticeships in South Africa (i.e. Poor academic ability)

Signature: _____

APPENDIX D: QUANTITATIVE QUESTIONNAIRE

Dear Reader / Research Partner:

I am currently doing a study regarding the comparisons of facilitator and learners perceptions of the factors that influence the performance of learners completing Apprenticeships in the Printing and Packaging industry of South Africa. This is in completion of my Masters degree in Business Administration.

You and other research partners will be involved in the primary survey which contains factors that lead to success and failure as identified by other research partners in the first qualitative survey. These factors were correlated and compared with previous research and the researcher has found that there are distinctive similarities between the factors. Identifying the priority factors in this study can lead to the development of a strategic management plan can then be designed to emphasise positive- and reduce or eliminate negative factors. This strategic plan could potentially improve the success rate in practical and academic performance within Apprenticeship training in the Printing and Packaging industry of South Africa. The potential increase in success rate amongst Apprentices will ensure an increase in the level of skills and a higher level of quality skills development in Apprenticeship training in this and possibly other industries. The information collected will be utilised beyond this study as I will pursue my doctorate hereafter, in which these strategic plans will be developed and relevant information used. Your input is crucial in this study and the results will be made available to those interested.

The questionnaire's format is a Five point Likert scale where the research partner has to select from the five options prioritising the factors. It would take approximately 30 minutes to complete. I would also like to assure confidentiality to all the respondents.

Please complete the details requested below as specific as possible. Be critical and specific to ensure that the outcomes of the results are credible, reliable and applicable. This is your chance to make a real positive contribution to skills development in our industry. Thank you for your positive contribution.

For any further information you can contact me on the details below:

Office hours: 021 9491562

Email: etienne@impitraining.co.za

Thank you for your participation

A handwritten signature in black ink, appearing to read 'Etienne Bester', is centered on the page. The signature is fluid and cursive, with a prominent initial 'E'.

Etienne Bester

St no: 198066600

Name and Surname: _____ Age: _____

Gender: _____ Ethnicity/Race: _____ Home Language: _____

Province: _____ Facilitator / Student: _____ TT Level (if student): _____

Scale works as follows:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

INSTRUCTIONS:

Please rate how strongly you agree or disagree with each of the following statements that could potentially help with the success of completing Apprenticeships by placing a “X” mark in the appropriate box.

SUCCESS FACTORS	1	2	3	4	5
Extension of college time to ensure ample study time					
Self discipline					
Understanding the work content					
Good lifestyle and support system					
More time for studying					
Daily / weekly tests to monitor progress of learners					
Mutual respect between students, lecturers and peers					
Proper planning to succeed					
Support for placements and employment					
Teach students various study techniques					
Experienced facilitators who are approachable					
Punctuality and attendance					
Good relations between facilitator and student					
Listening attentively and following instructions					
Positive attitude towards work and studies					
Teamwork					
Acceptable levels of recognition in the workplace					
Active participation in the programme					
Balance between rest and study					

Conducive learning environment					
Dedication in completing the course					
Good communication between coach, facilitator and learners					
Desire and commitment to learn					
Financial assistance and incentives for learners					
Free periods for self study					
Frequent group discussions					
Good basic education					
Good self motivation & dedication					
Comprehensive and up to date learning material					
Mechanical aptitude					
Passion, commitment and interest in a career in printing					
SUCCESS FACTORS	1	2	3	4	5
Good support structure from company and family					
Perseverance and ability to learn new concepts					
Competent mentors and training officers in the workplace					
Practical exposure to all concepts being taught					
Students literacy levels in English					
Take pride in oneself and your work					
Ask questions and attention to detail in lectures					
Complete homework and revise regularly					
Day off between national exams					
Summarising your work					
Facilitators assisting slow learners					
Use technology for teaching and learning					
Facilitators that are supportive and motivating					
Committed training by workplace instructors					
Good work ethics and hard work					
Regular feedback and monitoring learner performance					

Competent facilitators that are easy to understand					
Sacrifice social & family time & responsibility					
Study groups for peer learning					

Please rate how strongly you agree or disagree with each of the following statements that could potentially lead to the failure of completing Apprenticeships by placing a “X” mark in the appropriate box.

FAILURE FACTORS	1	2	3	4	5
Disregard for rules and failure to follow procedures					
Lack of self study					
Not balancing personal life with studies					
Wrong study techniques					
Lack of persistence and persevering					
Not getting sufficient time for studies					
Personal or family problems/responsibilities limiting focus					
Disregard for lecturers and homework					
Poor planning					
Rush through work without proper explanations					
Lack of self confidence and self discipline					
Demoralised and de-motivated students					
Poor time management					
Duration of travelling from class to home and back					
Inadequate support structures					
Language barriers					
Not summarising your work and making notes					
Ill discipline and ill mannered students					
Poor academic foundation					
FAILURE FACTORS	1	2	3	4	5
Insufficient training and production integration					
Studying away from home					

Irrelevant study material that is out of date					
Lack of commitment to learning					
Fear of asking questions					
Lack of employment opportunities					
Not understanding concepts being taught					
Favouritism from facilitators and in the workplace					
Lack of training control by facilitators					
Laziness and apathy					
Negative mindset and attitude towards learning					
No self motivation					
Outdated machinery and equipment					
Peer pressure					
Poor or miscommunication between facilitators and students					
Distraction due to external factors					
Poor timekeeping and attendance					
Thinks classroom based learning is a holiday from work					
Forced into the wrong career					
Negative influence in household and community					
Poor reading and writing skills					
Incompetent and impatient facilitators					
No practical examples of subject content					
Facilitators not being approachable					
Non-conducive learning/working environment					
Overloading and pressurising students with work					
No regular feedback to students					
Not participating and paying attention in class					
Not following training process properly					
Lack of interest and determination in trade					
No off days between National Exams					

Signature: _____

**APPENDIX E: VALIDATION OF QUESTIONNAIRES BY EXPERT MR KJ VAN
DER WESTHUIZEN**

Dear Reader / Research Partner:

I am currently doing a study regarding the comparisons of facilitator and learners perceptions of the factors that influence the performance of learners completing Apprenticeships in the Printing and Packaging industry of South Africa. This is in completion of my Masters degree in Business Administration.

You and other research partners will be involved in the primary survey which contains factors that lead to success and failure as identified by other research partners in the first qualitative survey. These factors were correlated and compared with previous research and the researcher has found that there are distinctive similarities between the factors. Identifying the priority factors in this study can lead to the development of a strategic management plan can then be designed to emphasise positive- and reduce or eliminate negative factors. This strategic plan could potentially improve the success rate in practical and academic performance within Apprenticeship training in the Printing and Packaging industry of South Africa. The potential increase in success rate amongst Apprentices will ensure an increase in the level of skills and a higher level of quality skills development in Apprenticeship training in this and possibly other industries. The information collected will be utilised beyond this study as I will pursue my doctorate hereafter, in which these strategic plans will be developed and relevant information used. Your input is crucial in this study and the results will be made available to those interested.

The questionnaire's format is a Five point Likert scale where the research partner has to select from the five options prioritising the factors. It would take approximately 30 minutes to complete. I would also like to assure confidentiality to all the respondents.

Please complete the details requested below as specific as possible. Be critical and specific to ensure that the outcomes of the results are credible, reliable and applicable. This is your chance to make a real positive contribution to skills development in our industry. Thank you for your positive contribution.

For any further information you can contact me on the details below:

Office hours: 021 9491562

Email: etienne@impitraining.co.za

Thank you for your participation



Etienne Bester

St no: 198066600



Name and Surname: _____ Age: _____
 Gender: _____ Ethnicity/Race: _____ Home Language: _____
 Province: _____ Facilitator / Student: _____ TT Level (if student): _____

Scale works as follows:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

INSTRUCTIONS:

Please rate how strongly you agree or disagree with each of the following statements that could potentially help with the success of completing Apprenticeships by placing a "X" mark in the appropriate box.

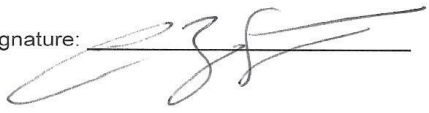
SUCCESS FACTORS	1	2	3	4	5
Extension of college time to ensure ample study time					
Self discipline					
Understanding the work content					
Good lifestyle and support system					
More time for studying					
Daily / weekly tests to monitor progress of learners					
Mutual respect between students, lecturers and peers					
Proper planning to succeed					
Support for placements and employment					
Teach students various study techniques					
Experienced facilitators who are approachable					
Punctuality and attendance					
Good relations between facilitator and student					
Listening attentively and following instructions					
Positive attitude towards work and studies					
Teamwork					
Acceptable levels of recognition in the workplace					
Active participation in the programme					
Balance between rest and study					
Conducive learning environment					
Dedication in completing the course					
Good communication between coach, facilitator and learners					
Desire and commitment to learn					
Financial assistance and incentives for learners					
Free periods for self study					
Frequent group discussions					
Good basic education					
Good self motivation & dedication					
Comprehensive and up to date learning material					
Mechanical aptitude					
Passion, commitment and interest in a career in printing					

SUCCESS FACTORS	1	2	3	4	5
Good support structure from company and family					
Perseverance and ability to learn new concepts					
Competent mentors and training officers in the workplace					
Practical exposure to all concepts being taught					
Students literacy levels in English					
Take pride in oneself and your work					
Ask questions and attention to detail in lectures					
Complete homework and revise regularly					
Day off between national exams					
Summarising your work					
Facilitators assisting slow learners					
Use technology for teaching and learning					
Facilitators that are supportive and motivating					
Committed training by workplace instructors					
Good work ethics and hard work					
Regular feedback and monitoring learner performance					
Competent facilitators that are easy to understand					
Sacrifice social & family time & responsibility					
Study groups for peer learning					

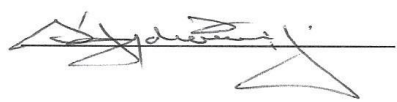
Please rate how strongly you agree or disagree with each of the following statements that could potentially lead to the failure of completing Apprenticeships by placing a "X" mark in the appropriate box.

FAILURE FACTORS	1	2	3	4	5
Disregard for rules and failure to follow procedures					
Lack of self study					
Not balancing personal life with studies					
Wrong study techniques					
Lack of persistence and persevering					
Not getting sufficient time for studies					
Personal or family problems/responsibilities limiting focus					
Disregard for lecturers and homework					
Poor planning					
Rush through work without proper explanations					
Lack of self confidence and self discipline					
Demoralised and de-motivated students					
Poor time management					
Duration of travelling from class to home and back					
Inadequate support structures					
Language barriers					
Not summarising your work and making notes					
Ill discipline and ill mannered students					
Poor academic foundation					

FAILURE FACTORS	1	2	3	4	5
Insufficient training and production integration					
Studying away from home					
Irrelevant study material that is out of date					
Lack of commitment to learning					
Fear of asking questions					
Lack of employment opportunities					
Not understanding concepts being taught					
Favouritism from facilitators and in the workplace					
Lack of training control by facilitators					
Laziness and apathy					
Negative mindset and attitude towards learning					
No self motivation					
Outdated machinery and equipment					
Peer pressure					
Poor or miscommunication between facilitators and students					
Distraction due to external factors					
Poor timekeeping and attendance					
Thinks classroom based learning is a holiday from work					
Forced into the wrong career					
Negative influence in household and community					
Poor reading and writing skills					
Incompetent and impatient facilitators					
No practical examples of subject content					
Facilitators not being approachable					
Non-conducive learning/working environment					
Overloading and pressurising students with work					
No regular feedback to students					
Not participating and paying attention in class					
Not following training process properly					
Lack of interest and determination in trade					
No off days between National Exams					

Signature: 

Validated by expert: Name and Surname: K.J. v/d. WESTHUIZEN

Date: 18.06.2014 Signature: 

Dear Reader / Research Partner:

I am currently doing a study regarding the comparisons of facilitator and learners perceptions of the factors that influence the performance of learners completing Apprenticeships in the Printing and Packaging industry of South Africa. This is in completion of my Masters degree in Business Administration.

You and other research partners will be involved in the primary survey which contains factors that lead to success and failure as identified by other research partners in the first qualitative survey. These factors were correlated and compared with previous research and the researcher has found that there are distinctive similarities between the factors. Identifying the priority factors in this study can lead to the development of a strategic management plan can then be designed to emphasise positive- and reduce or eliminate negative factors. This strategic plan could potentially improve the success rate in practical and academic performance within Apprenticeship training in the Printing and Packaging industry of South Africa. The potential increase in success rate amongst Apprentices will ensure an increase in the level of skills and a higher level of quality skills development in Apprenticeship training in this and possibly other industries. The information collected will be utilised beyond this study as I will pursue my doctorate hereafter, in which these strategic plans will be developed and relevant information used. Your input is crucial in this study and the results will be made available to those interested.

The questionnaire's format is a Five point Likert scale where the research partner has to select from the five options prioritising the factors. It would take approximately 30 minutes to complete. I would also like to assure confidentiality to all the respondents.

Please complete the details requested below as specific as possible. Be critical and specific to ensure that the outcomes of the results are credible, reliable and applicable. This is your chance to make a real positive contribution to skills development in our industry. Thank you for your positive contribution.

For any further information you can contact me on the details below:

Office hours: 021 9491562

Email: etienne@impitraining.co.za

Thank you for your participation



Etienne Bester
St no: 198066600



Name and Surname: _____ Age: _____

Gender: _____ Ethnicity/Race: _____ Home Language: _____

Province: _____ Facilitator / Student: _____ TT Level (if student): _____

Scale works as follows:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

INSTRUCTIONS:

Please rate how strongly you agree or disagree with each of the following statements that could potentially help with the success of completing Apprenticeships by placing a "X" mark in the appropriate box.

SUCCESS FACTORS					
Extension of college time to ensure ample study time	1	2	3	4	5
Self discipline	1	2	3	4	5
Understanding the work content	1	2	3	4	5
Good lifestyle and support system	1	2	3	4	5
More time for studying	1	2	3	4	5
Daily / weekly tests to monitor progress of learners	1	2	3	4	5
Mutual respect between students, lecturers and peers	1	2	3	4	5
Proper planning to succeed	1	2	3	4	5
Support for placements and employment	1	2	3	4	5
Teach students various study techniques	1	2	3	4	5
Experienced facilitators who are approachable	1	2	3	4	5
Punctuality and attendance	1	2	3	4	5
Good relations between facilitator and student	1	2	3	4	5
Listening attentively and following instructions	1	2	3	4	5
Positive attitude towards work and studies	1	2	3	4	5
Teamwork	1	2	3	4	5
Acceptable levels of recognition in the workplace	1	2	3	4	5
Active participation in the programme	1	2	3	4	5
Balance between rest and study	1	2	3	4	5
Conducive learning environment	1	2	3	4	5
Dedication in completing the course	1	2	3	4	5
Good communication between coach, facilitator and learners	1	2	3	4	5
Desire and commitment to learn	1	2	3	4	5
Financial assistance and incentives for learners	1	2	3	4	5
Free periods for self study	1	2	3	4	5
Frequent group discussions	1	2	3	4	5
Good basic education	1	2	3	4	5
Good self motivation & dedication	1	2	3	4	5
Comprehensive and up to date learning material	1	2	3	4	5
Mechanical aptitude	1	2	3	4	5
Passion, commitment and interest in a career in printing	1	2	3	4	5

Good support structure from company and family	1	2	3	4	5
Perseverance and ability to learn new concepts	1	2	3	4	5
Competent mentors and training officers in the workplace	1	2	3	4	5
Practical exposure to all concepts being taught	1	2	3	4	5
Students literacy levels in English	1	2	3	4	5
Take pride in oneself and your work	1	2	3	4	5
Ask questions and attention to detail in lectures	1	2	3	4	5
Complete homework and revise regularly	1	2	3	4	5
Day off between national exams	1	2	3	4	5
Summarising your work	1	2	3	4	5
Facilitators assisting slow learners	1	2	3	4	5
Use technology for teaching and learning	1	2	3	4	5
Facilitators that are supportive and motivating	1	2	3	4	5
Committed training by workplace instructors	1	2	3	4	5
Good work ethics and hard work	1	2	3	4	5
Regular feedback and monitoring learner performance	1	2	3	4	5
Competent facilitators that are easy to understand	1	2	3	4	5
Sacrifice social & family time & responsibility	1	2	3	4	5
Study groups for peer learning	1	2	3	4	5


Name and Surname: _____

Please rate how strongly you agree or disagree with each of the following statements that could potentially lead to the failure of completing Apprenticeships by placing a "X" mark in the appropriate box.

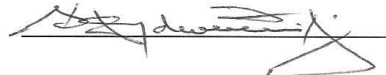
FAILURE FACTORS					
Disregard for rules and failure to follow procedures	1	2	3	4	5
Lack of self study	1	2	3	4	5
Not balancing personal life with studies	1	2	3	4	5
Wrong study techniques	1	2	3	4	5
Lack of persistence and persevering	1	2	3	4	5
Not getting sufficient time for studies	1	2	3	4	5
Personal or family problems/responsibilities limiting focus	1	2	3	4	5
Disregard for lecturers and homework	1	2	3	4	5
Poor planning	1	2	3	4	5
Rush through work without proper explanations	1	2	3	4	5
Lack of self confidence and self discipline	1	2	3	4	5
Demoralised and de-motivated students	1	2	3	4	5
Poor time management	1	2	3	4	5
Duration of travelling from class to home and back	1	2	3	4	5
Inadequate support structures	1	2	3	4	5
Language barriers	1	2	3	4	5
Not summarising your work and making notes	1	2	3	4	5

Ill discipline and ill mannered students	1	2	3	4	5
Poor academic foundation	1	2	3	4	5
Insufficient training and production integration	1	2	3	4	5
Studying away from home	1	2	3	4	5
Irrelevant study material that is out of date	1	2	3	4	5
Lack of commitment to learning	1	2	3	4	5
Fear of asking questions	1	2	3	4	5
Lack of employment opportunities	1	2	3	4	5
Not understanding concepts being taught	1	2	3	4	5
Favouritism from facilitators and in the workplace	1	2	3	4	5
Lack of training control by facilitators	1	2	3	4	5
Laziness and apathy	1	2	3	4	5
Negative mindset and attitude towards learning	1	2	3	4	5
No self motivation	1	2	3	4	5
Outdated machinery and equipment	1	2	3	4	5
Peer pressure	1	2	3	4	5
Poor or miscommunication between facilitators and students	1	2	3	4	5
Distraction due to external factors	1	2	3	4	5
Poor timekeeping and attendance	1	2	3	4	5
Thinks classroom based learning is a holiday from work	1	2	3	4	5
Forced into the wrong career	1	2	3	4	5
Negative influence in household and community	1	2	3	4	5
Poor reading and writing skills	1	2	3	4	5
Incompetent and impatient facilitators	1	2	3	4	5
No practical examples of subject content	1	2	3	4	5
Facilitators not being approachable	1	2	3	4	5
Non-conducive learning/working environment	1	2	3	4	5
Overloading and pressurising students with work	1	2	3	4	5
No regular feedback to students	1	2	3	4	5
Not participating and paying attention in class	1	2	3	4	5
Not following training process properly	1	2	3	4	5
Lack of interest and determination in trade	1	2	3	4	5
No off days between National Exams	1	2	3	4	5

Name and Surname: EH BESTER

Signature: 

Validated by expert: Name and Surname: K.J. v/d. WESTHUIZEN

Date: 18.06.2014 Signature: 

APPENDIX F: SUCCESS AND FAILURE FACTOR CATEGORIES

SUCCESS CATEGORIES

SUCCESS CATEGORY 1: Facilitators Characteristics, behaviours or activities

Committed training by workplace instructors
Competent facilitators that are easy to understand
Experienced facilitators who are approachable
Facilitators assisting slow learners
Facilitators that are supportive and motivating
Regular feedback and monitoring learner performance
Teach students various study techniques
Use technology for teaching and learning

SUCCESS CATEGORY 2: Students Characteristics, behaviours or activities

Active participation in the programme
Ask questions and attention to detail in lectures
Complete homework and revise regularly
Dedication in completing the course
Desire and commitment to learn
Good self motivation & dedication
Good work ethics and hard work
Listening attentively and following instructions
Mechanical aptitude
Mutual respect between students, lecturers and peers
Passion, commitment and interest in a career in printing
Perseverance and ability to learn new concepts
Positive attitude towards work and studies
Proper planning to succeed
Punctuality and attendance
Sacrifice social & family time & responsibility
Self discipline
Student's literacy levels in English
Summarising your work
Take pride in oneself and your work
Teamwork
Understanding the work content

SUCCESS CATEGORY 3: Teaching or Learning environment and course content

Acceptable levels of recognition in the workplace
Competent mentors and training officers in the workplace
Comprehensive and up to date learning material
Conducive learning environment
Daily / weekly tests to monitor progress of learners
Day off between national exams
Extension of college time to ensure ample study time
Financial assistance and incentives for learners
Free periods for self study
Frequent group discussions
Good communication between coach, facilitator and learners
Good relations between facilitator and student
More time for studying
Practical exposure to all concepts being taught
Study groups for peer learning

SUCCESS CATEGORY 4: Other factors beyond the control of the role players

Balance between rest and study
Good basic education
Good lifestyle and support system
Good support structure from company and family
Support for placements and employment

FAILURE CATEGORIES

FAILURE CATEGORY 1: Facilitators Characteristics, behaviours or activities

Facilitators not being approachable
Favouritism from facilitators and in the workplace
Incompetent and impatient facilitators
Lack of training control by facilitators
No regular feedback to students
Overloading and pressurising students with work
Rush through work without proper explanations

FAILURE CATEGORY 2: Students Characteristics, behaviours or activities

Demoralised and de-motivated students
Disregard for lecturers and homework
Disregard for rules and failure to follow procedures
Fear of asking questions
Ill discipline and ill mannered students
Lack of commitment to learning
Lack of interest and determination in trade
Lack of persistence and persevering
Lack of self confidence and self discipline
Lack of self study
Laziness and apathy
Negative mindset and attitude towards learning
No self motivation
Not balancing personal life with studies
Not participating and paying attention in class
Not summarising your work and making notes
Not understanding concepts being taught
Poor planning
Poor reading and writing skills
Poor time management
Poor timekeeping and attendance
Thinks classroom based learning is a holiday from work
Wrong study techniques

FAILURE CATEGORY 3: Teaching or Learning environment and course content

Insufficient training and production integration
Irrelevant study material that is out of date
No off days between National Exams
No practical examples of subject content
Non-conducive learning/working environment
Not following training process properly
Not getting sufficient time for studies

Outdated machinery and equipment
Peer pressure
Poor or miscommunication between facilitators and students

FAILURE CATEGORY 4: Other factors beyond the control of the role players

Distraction due to external factors
Duration of travelling from class to home and back
Forced into the wrong career
Inadequate support structures
Lack of employment opportunities
Language barriers
Negative influence in household and community
Personal or family problems/responsibilities limiting focus
Poor academic foundation
Studying away from home