

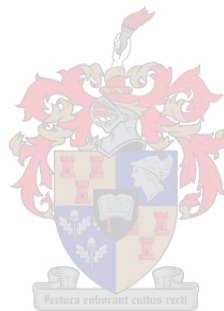
**IMPLEMENTING EFFICIENT AND EFFECTIVE LEARNERSHIPS
IN THE CONSTRUCTION INDUSTRY**

**A study on the learnership system in the building and civil sector of
the Western Cape**

By

Claudia Mummenthey

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Study leader: Prof. Ronel du Preez

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Declaration

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Date: 15 December

“Education is not something that can be enforced haphazardly – there must be a constant review of our efforts; we must identify problems and find creative solutions” (Mandela, 1997, p. 5).

ABSTRACT

Implementing efficient and effective learnerships in the construction industry.
A study on the learnership system in the building and civil sector of the Western Cape

Study leader: Prof. Ronel du Preez (University of Stellenbosch)

Since the end of apartheid in 1994 South Africa has made significant gains and progress in overcoming the legacy of its past. But despite this progress, low levels of skills among the majority of the formerly disadvantaged population and stubbornly high unemployment rates, especially among youths (age 15-24), still remain the country's most pressing concerns and greatest impediments towards a better future for all.

The learnership system, which was introduced by the Skills Development Act in 1998, was perceived as a creative vehicle to tackle these problems in two significant ways: first, by enhancing skills levels in a workplace-oriented environment and second by providing learners with employment during the phase of acquiring recognised occupational training. But since its actual implementation in 2000, the system has not always been able to meet up to its expectations. Low enrolment rates and a slow employer take up characterise the system in some industrial sectors. This is particularly true for the construction sector, which is perceived as an escalator industry for skills development by the government, as the industry requires fairly basic and intermediate skills. Moreover, the industry provides the necessary infrastructure for all other economic sectors and thus is critical for the country's future economic growth and international competitiveness.

The low employer take-up in the sector seems to be persistent, despite the fact that the industry is currently experiencing huge constraints in terms of skills, most importantly in carrying out the infrastructural projects connected to the government's Accelerated Shared Growth Initiative (AsgiSA). This includes a R372 billion spending plan for various kinds of general infrastructure and in preparation for the Soccer World Cup in 2010. Due to the low involvement in training the industry faces a severe shortage of adequately skilled staff, particularly artisans across all major trades. The shortage of artisans, which is considered to hamper infrastructure development both in the public and private sector, is projected to go beyond 2010. The implementation of an efficient and effective learnership system for the industry is thus not only a priority need of the current situation but also for securing quality work and skills in the sector for the longer term. This is regarded as particularly important in view of the crucial role of the industry for the national economy.

The primary objective of this study was to map and shed light on the current state of the learnership system in the construction industry (building and civil), to identify the major obstacles currently observed by its key stakeholders and building on this to provide possible solutions for putting an efficient and effective learnership system into place. For this purpose a comprehensive learnership evaluation framework was developed, based on an in-depth analysis of national and sectoral challenges for learnership

implementation and a review of relevant evaluation literature. A combined quantitative and qualitative research approach was followed. Data were collected from key stakeholders within the Western Cape using a structured questionnaire, developed specifically for the purposes of the study. The sample used for the study included 99 building and civil companies (web-survey), 135 construction learners who had completed their learnership in 2006 (phone survey), 14 representatives from accredited training providers (personal interviews) as well as 10 key informants from the Construction Education and Training Authority (CETA) and leading industry associations/representative bodies (personal interviews). The research was conducted with general support from the CETA and financial sponsorship from the German-Technical Cooperation (GTZ).

Data were analysed using Statistica (i.e. basic descriptive and inferential statistics) for the quantitative data and a content analysis for the qualitative data. Analysis and interpretation of the data indicated that despite a currently expressed low satisfaction with the system among the providers (i.e. both workplace and institutional providers), the learnership system as such is nevertheless regarded as an appropriate means to develop artisans for the industry. Findings suggested that criticisms expressed by respondents are strongly related to issues of practical implementation rather than to criticisms of the system on a conceptual level. One of the main findings was that companies are motivated to get involved but the majority does not feel adequately prepared for implementing learnerships and requests a lot more practical support from the CETA in this regard. Furthermore, the administrative processes connected to the actual implementation of learnerships are perceived by all stakeholders to be inefficient, highly bureaucratic and with excessive paperwork involved. Findings did not vary significantly with the size of the company nor were they positively or negatively influenced by the fact that a company was already involved or not involved in learnerships. Other obstacles observed by the spectrum of stakeholders were the currently out-dated learnership content, an inappropriately short duration of artisan training and the poor selection process of previously unemployed learners (classified as 18.2 learners), some of whom showed a low aptitude or motivation for the industry. Most significantly though, the study revealed that the system regardless of its challenges in terms of efficient implementation, and thus developing applied competence is felt to be effective when it comes to employability. As confirmed across all stakeholders the system accomplishes a very high rate of employability. The majority of learners are employed and expressed a high satisfaction with the learnership and its general positive impact on income and career prospects.

Overall, the study revealed a number of factors that currently constrain an efficient and effective learnership implementation in the industry. These factors were discussed in general terms and also in relation to each stakeholder group. Explicit recommendations were made, which identified possible solutions to the present constraints in the construction industry and may also be relevant for the current discussion on learnerships at national policy level. Above all, the current study established a base model for evaluating learnerships. Consequently, it does not only provide a tool for future evaluations in the construction industry, but for learnership evaluations in all national sectors.

OPSOMMING

Die inwerkingstelling van doeltreffende en doelmatige leerderskappe in die konstruksiebedryf
’n Studie van die leerderskapstelsel in die Wes-Kaapse bou- en siviele bedryf

Studieleier: Prof. Ronel du Preez (Universiteit Stellenbosch)

Sedert die einde van apartheid in 1994, het Suid-Afrika beduidende vordering gemaak om sy verlede te oorkom. Ten spyte van dié vordering, kom lae vaardigheidsvlakke egter steeds by die meerderheid van die bevolking uit voorheen benadeelde groepe voor, en is die volgehoue hoë werkloosheidsvlakke, veral onder die jeug (ouderdom 15–24), steeds een van die land se dringendste uitdagings en grootste struikelblokke in die pad van ’n beter toekoms vir almal.

Die leerderskapstelsel wat ingevolge die Wet op Vaardigheidsontwikkeling van 1998 in werking gestel is, is destyds as ’n skeppende medium beskou om bogenoemde uitdagings aan te pak, eerstens deur die ontwikkeling van vaardigheidsvlakke in ’n werkgerigte omgewing, en tweedens deur aan leerders werk te verskaf terwyl hulle erkende beroepsgerigte opleiding ontvang. Sedert die inwerkingstelling van leerderskappe in alle erns in 2000 afgeskop het, kon die stelsel egter nie aan al dié verwagtinge voldoen nie. In sekere nywerheidssektore word die stelsel deur beperkte inskrywings en werkgewerbetrokkenheid gekenmerk. Dit is veral die geval in die konstruksiebedryf wat, gedagtig aan die betreklik basiese en intermediêre vaardigheidsvlakke wat vereis word, júís deur die regering geormerk is as ’n bedryf wat ’n beduidende rol in vaardigheidsontwikkeling kan speel. Voorts voorsien die konstruksiebedryf infrastruktuur aan al die ander ekonomiese sektore, wat noodsaaklik is vir die land se toekomstige groei en internasionale mededingendheid.

Ten spyte daarvan dat die bedryf tans onder groot druk verkeer met betrekking tot werknemervaardighede en die uitvoering van infrastruktuurprojekte gekoppel aan die regering se program vir versnelde en gedeelde ekonomiese groei, AsgiSA, duur die lae vlakke van werkgewerbetrokkenheid steeds voort. Projekte sluit die bestedingsplan van R372 miljard vir ’n verskeidenheid infrastruktuur ter voorbereiding vir die Wêreldbekersokker in 2010 in. Weens gebrekkige betrokkenheid by opleiding, ondervind die bedryf ’n ernstige tekort aan vaardige personeel, veral vakmanne in alle ambagte, wat op sy beurt infrastruktuurontwikkeling in sowel die openbare as privaat sektor kniehalter. Hierdie toedrag van sake sal na verwagting tot ná 2010 voortduur. Die inwerkingstelling van ’n doeltreffende en doelmatige leerderskapstelsel vir die bedryf is dus noodsaaklik – nie net om die land uit sy huidige penarie te red nie, maar ook om gehalte uitsette en vaardigheidsontwikkeling op die lange duur te verseker. Dít is veral belangrik in die lig van die sleutelrol wat die bedryf in die nasionale ekonomie speel.

Die hoofdoelwit van hierdie studie was om die huidige stand van die leerderskapstelsel in die konstruksiebedryf (sowel die bou- as siviele sektor) te ondersoek, die hindernisse wat sleutelrolspelers tans

ervaar uit te wys, en op grond daarvan met moontlike oplossings vir die instel van 'n doeltreffende en doelmatige leerderskapstelsel vorendag te kom. Hiervoor is 'n omvattende leerderskapbeoordelingsraamwerk op grond van 'n diepgaande ontleding van nasionale en sektoruitdagings in hierdie verband ontwikkel, en is tersaaklike literatuur bestudeer. 'n Gekombineerde kwantitatiewe en kwalitatiewe navorsingsbenadering is gevolg. Data is met behulp van 'n gestruktureerde vraelys wat vir die doeleindes van die studie ontwikkel is, van sleutelrolspelers in die Wes-Kaap ingesamel. Die steekproef vir die studie het die volgende respondente ingesluit: 99 konstruksie- en siviele maatskappye (webopname); 135 konstruksieleerders wat hul leerderskap in 2006 voltooi het (telefoonopname); 14 verteenwoordigers van geakkrediteerde opleidingsverskaffers (onderhoude) en 10 sleutelinformante van die sektorale onderwys- en opleidingsowerheid vir konstruksie, CETA, en bedryfsverenigings (onderhoude). Die navorsing is met die algemene ondersteuning van CETA, en die finansiële ondersteuning van GTZ, die Duitse maatskappy vir tegniese samewerking, onderneem.

Met behulp van Statistica is sowel kwantitatiewe (beskrywende en inferensiële statistiek) as inhoudsontleding (kwalitatiewe data) gedoen. Resultate dui daarop dat die leerderskapstelsel, ten spyte van huidige lae tevredenheidsvlakke onder verskaffers (in die werkplek én institusioneel), steeds as 'n geskikte manier beskou word om vakmanne vir die bedryf op te lei. Die respondente se kritiek is veral gemik op die praktiese inwerkingstelling van die stelsel, en nie soseer die konsepuele aard van die stelsel nie. Een van die hoofbevindinge van die studie is dat maatskappye gemotiveerd is om betrokke te raak, maar dat die meerderheid nie genoegsaam voorberei word om die leerderskappe in werking te stel nie. In hierdie verband benodig maatskappye baie meer praktiese ondersteuning van CETA. Voorts is rolspelers dit eens dat die administratiewe proses wat met die inwerkingstelling van leerderskappe gepaardgaan, ondoeltreffend, hoogs burokraties en met administratiewe rompslomp oorlaai is. Die resultate van verskillende grootte maatskappye het nie juis beduidend van mekaar verskil nie. Bestaande betrokkenheid by leerderskappe al dan nie het ook geen beduidende positiewe of negatiewe uitwerking op die resultate getoon nie. Ander struikelblokke wat deur rolspelers uitgewys is, sluit in die verouderde inhoud van leerderskappe, die uitermate kort tydperk vir vakmanopleiding, en die swak keuringsproses van voorheen werklose leerders (wat as 18.2-leerders geklassifiseer word), van wie sommige 'n beperkte aanleg vir bou- en siviele werk toon. 'n Belangrike resultaat van die studie is egter dat die stelsel, ondanks al die uitdagings van doeltreffende inwerkingstelling en die gevolglike ontwikkeling van toegepaste vaardighede, steeds met betrekking tot werkgeskiktheid as doeltreffend beskou word. Al die rolspelers is van mening dat die stelsel vir hoë vlakke van werkgeskiktheid sorg. Die meerderheid leerders blyk tevrede te wees met die leerderskap, en word na afloop daarvan in diens geneem. Hulle beskou die leerderskap as 'n positiewe faktor in hulle inkomste- en loopbaanvooruitsigte.

Die studie wys verskeie faktore uit wat tans die doeltreffende en doelmatige inwerkingstelling van leerderskappe in die bedryf kniehalter. Hierdie faktore is in die algemeen sowel as aan die hand van elke rolspeler se ervaring bespreek. Duidelike aanbevelings word gemaak wat moontlike oplossings vir die huidige struikelblokke in die konstruksiebedryf kan bied. Die aanbevelings kan ook met vrug in die

bespreking oor leiderskappe op nasionale vlak aangewend word. Die studie bied boonop 'n basismodel vir die beoordeling van leiderskappe wat nie net as 'n instrument vir toekomstige beoordeling in die konstruksiebedryf nie, maar ook vir leiderskappe in ander sektore ingespan kan word.

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*This work is especially dedicated to my beloved parents,
who have believed in me throughout my entire life.
Your encouragement and unconditional love has taken me, wherever I wanted to go.*

I miss you, mum.

ACRONYMS AND ABBREVIATIONS

AsgiSA:	Accelerated Shared Growth Initiative South Africa
BCC:	Black Construction Council
BIBC:	Building Industry Bargaining Council
CEP:	Communities of Expert Practice
CETA:	Construction Education and Training Authority
CIDB:	Construction Industry Development Board
DoE:	Department of Education
DoL:	Department of Labour
DST:	Department of Science and Technology
ETQA:	Education and Training Quality Assurance
GTZ:	Gesellschaft für technische Zusammenarbeit (German Technical Cooperation)
HIV/Aids:	Human Infected Virus/Acquired Immune Deficiency Syndrome
HSRC:	Human Sciences Research Council
ILO:	International Labour Organisation
JIPSA:	Joint Initiative on Priority Skills Acquisition
MBSA:	Master Builders South Africa
NACI:	National Advisory Council on Innovation
NALEDI:	National Labour and Economic Development Institute
NEDLAC:	National Economic, Development and Labour Council
NQF:	National Qualifications Framework
NSDS:	National Skills Development Strategy
NSF:	Nationals Skills Fund
OBET:	Outcomes-Based Education and Training
OFO:	Organising Framework of Occupations
OQF:	Occupational Qualifications Framework
QCTO:	Quality Council for Trades and Occupations
SAQA:	South African Qualifications Authority
SARS:	South African Revenue Service
SDA:	Skills Development Act
SDF:	Skills Development Facilitator
SETA:	Sector Education and Training Authority
SMME:	Small, Micro and Medium Enterprises
SSP:	Sector Skills Plan
VET:	Vocational Education and Training
WSP:	Workplace Skills Plan

TABLE OF CONTENTS

ABSTRACT	i
OBSOMMING	iii
ACRONYMS AND ABBREVIATIONS	viii
LIST OF TABLES	xiv
LIST OF FIGURES	xvi
LIST OF APPENDICES	xvii
CHAPTER 1: BACKGROUND AND OBJECTIVES OF THE STUDY	1
1.1 INTRODUCTION	1
1.2 BACKGROUND AND MOTIVATION OF THE STUDY	2
1.3 VALUE OF THE STUDY	5
1.4 RESEARCH OBJECTIVES	6
1.5 SCOPE OF THE STUDY	7
1.6 OVERVIEW OF THE STUDY	8
CHAPTER 2: THEORETICAL FRAMEWORK	9
2.1 INTRODUCTION	9
2.2 THE SYSTEM OF LEARNERSHIPS	9
2.2.1 LEARNERSHIP DEFINITIONS AND COMPONENTS.....	9
2.2.2 SYSTEM STRUCTURES, CONCEPTS AND PRINCIPLES	13
2.2.2.1 Sector Education and Training Authority (SETA)	13
2.2.2.2 South African Qualification Authority (SAQA) and (ETQA)	14
2.2.2.3 National Qualifications Framework (NQF).....	15
2.2.2.4 Outcomes-Based Education and Training (OBET).....	17
2.2.3 FINANCING MECHANISMS.....	18
2.2.4 NATIONAL STRATEGIES AND INITIATIVES.....	19
2.2.4.1 Human Resource Development (HRD) Strategy.....	19
2.2.4.2 National Skills Development Strategy II (2005-2010).....	20
2.2.4.3 AsgiSA and JIPSA.....	21
2.2.5 LEGISLATION.....	21

2.2.6	SUMMARY: LEARNERSHIP FRAMEWORK AND STAKEHOLDERS	22
2.3	HISTORICAL BACKGROUND AND METHODOLOGICAL DEVELOPMENT	23
2.3.1	HISTORICAL BACKGROUND: THE APPRENTICESHIP SYSTEM	23
2.3.1.1	Apprenticeships versus learnerships: Characteristic features and differences	25
2.3.1.2	Continuation of apprenticeships	27
2.3.2	METHODOLOGICAL DEVELOPMENT: THE REFORM PROCESS	27
2.3.2.1	Stage 1: Evolution of ideas and the 'integrative' vision (1989-1994).....	28
2.3.2.2	Stage 2: Transforming policy ideas into legislation (1994-1999).....	29
2.3.2.3	Stage 3: Implementing the overall vision (From late 1999-today)	31
2.3.2.4	Review and assessment of the reform process.....	31
2.4	THE CHALLENGES OF LEARNERSHIP IMPLEMENTATION.....	33
2.4.1	SOUTH AFRICAN CHALLENGES	33
2.4.1.1	Education levels (literacy, numeracy and language).....	33
2.4.1.2	Institutional landscape: Capacity, relevance, infrastructure and funding.....	35
2.4.1.3	Emigration of skilled labour	35
2.4.1.4	Enterprise training: Attitudes and practices	36
2.4.1.5	Vocational education and training: National perception and recognition.....	37
2.4.1.6	Poverty-related diseases: HIV/AIDS.....	38
2.4.2	INDUSTRY-SPECIFIC CHALLENGES.....	39
2.4.2.1	Sector profile and structure	39
2.4.2.2	The nature of the work and employment practices.....	41
2.4.2.3	Training capacity and competence	43
2.4.2.4	Image of the sector.....	44
2.5	FORMULATED CRITIQUE ON THE SYSTEM.....	44
2.5.1	THE DUAL CHALLENGE OF THE NQF	44
2.5.2	THE MECHANISMS FOR INTEGRATION	45
2.5.3	LINKAGE TO THE WORLD OF WORK.....	47
2.5.4	PRACTICAL IMPLEMENTATION: LACK OF CONTENT AND METHODS	47
2.5.5	CAPACITY ISSUES: COMPLEXITY AND BUREAUCRATISATION OF REFORM	48
2.5.6	SPEED OF REFORM AND INTERNATIONAL INVOLVEMENT	50
2.5.7	AMBITIOUSNESS OF RECONTEXTUALISATION	50
2.6	EVALUATION THEORY.....	51
2.6.1	DEFINITIONS OF EVALUATION.....	52
2.6.2	PURPOSES AND TYPES OF EVALUATION.....	53
2.6.3	STANDARDS AND PRINCIPLES OF EVALUATION	55
2.6.4	EFFECTIVENESS, EFFICIENCY AND EVALUATION.....	56
2.6.5	EVALUATION MODELS	57

2.6.5.1	Kirkpatrick's Four-Level evaluation.....	58
2.6.5.2	Cost-effectiveness models	59
2.6.5.3	Stufflebeam's CIPP model.....	59
2.6.5.4	Systems evaluation (Systems-based model)	60
2.6.6	LEARNERSHIP EVALUATION FRAMEWORK	62
2.6.6.1	Learnership context.....	62
2.6.6.2	Learnership outcome.....	62
2.6.6.3	Learnership processes	64
2.6.6.4	Learnership input.....	66
2.6.6.5	Summary and evaluation process	67
CONCLUSION: CHAPTER 2.....		69
CHAPTER 3: RESEARCH METHODOLOGY		70
3.1	INTRODUCTION	70
3.2	RESEARCH DESIGN, METHODS AND FRAMEWORK.....	70
3.2.1	RESEARCH DESIGN	70
3.2.2	RESEARCH METHODS.....	71
3.3	SAMPLE AND SAMPLE SIZE.....	73
3.3.1	BUILDING AND CIVIL COMPANIES	73
3.3.2	CONSTRUCTION LEARNERS	74
3.3.3	ACCREDITED TRAINING PROVIDERS.....	75
3.3.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	75
3.3.5	SUMMARY OF SAMPLE STRUCTURE	76
3.4	MEASURING INSTRUMENTS.....	76
3.4.1	GENERAL QUESTIONNAIRE DESIGN	77
3.4.2	QUESTIONNAIRE DESIGN FOR THE VARIOUS STAKEHOLDER GROUPS	79
3.4.3	DESIGN WITH REGARDS TO RESPONSE RATE AND RESEARCH QUESTIONS.....	79
3.5	PROCEDURES	80
3.5.1	WEB-SURVEY: BUILDING AND CIVIL COMPANIES.....	80
3.5.2	TELEPHONE-SURVEY: CONSTRUCTION LEARNERS	83
3.5.3	INTERVIEW SURVEY: ACCREDITED TRAINING PROVIDERS	84
3.5.4	KEY INFORMANTS INTERVIEWS: CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	85
3.6	DATA RECORDING AND ANALYSIS	85
3.6.1	DATA RECORDING	85
3.6.2	DATA ANALYSIS.....	86
3.7	RELIABILITY AND VALIDITY	88

3.7.1	RELIABILITY	88
3.7.2	VALIDITY	89
3.8	CONCLUSION: CHAPTER THREE	90
CHAPTER 4: RESEARCH RESULTS AND DISCUSSION.....		91
4.1	INTRODUCTION	91
4.2	RESEARCH OBJECTIVES REVISITED	91
4.3	RESPONDENT CHARACTERISTICS	92
4.3.1	BUILDING AND CIVIL COMPANIES	92
4.3.2	CONSTRUCTION LEARNERS	93
4.3.3	ACCREDITED TRAINING PROVIDERS.....	95
4.3.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	96
4.4	LEARNERSHIP SATISFACTION	97
4.4.1	BUILDING AND CIVIL COMPANIES	97
4.4.2	CONSTRUCTION LEARNERS	100
4.4.3	ACCREDITED TRAINING PROVIDERS.....	102
4.4.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	103
4.4.5	SUMMARY: LEARNERSHIP SATISFACTION.....	105
4.5	APPROPRIATENESS OF THE LEARNERSHIP SYSTEM	105
4.5.1	BUILDING AND CIVIL COMPANIES	105
4.5.2	ACCREDITED TRAINING PROVIDERS.....	107
4.5.3	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	108
4.5.4	SUMMARY: APPROPRIATENESS OF THE LEARNERSHIP SYSTEM	109
4.6	PROVIDER LEARNERSHIP MOTIVATION	110
4.6.1	BUILDING AND CIVIL COMPANIES	110
4.6.2	ACCREDITED TRAINING PROVIDERS.....	112
4.6.3	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	113
4.6.4	SUMMARY: PROVIDER LEARNERSHIP MOTIVATION	114
4.7	PROVIDER LEARNERSHIP COMPETENCE	114
4.7.1	BUILDING AND CIVIL COMPANIES	115
4.7.2	ACCREDITED TRAINING PROVIDERS.....	117
4.7.3	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	119
4.7.3	SUMMARY: PROVIDER LEARNERSHIP COMPETENCE	120
4.8	LEARNERSHIP PROCESSES.....	121
4.8.1	BUILDING AND CIVIL COMPANIES	121
4.8.2	CONSTRUCTION LEARNERS	124

4.8.3	ACCREDITED TRAINING PROVIDERS.....	126
4.8.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	128
4.8.5	SUMMARY: LEARNERSHIP PROCESSES.....	131
4.9	LEARNERSHIP OUTCOME.....	131
4.9.1	BUILDING AND CIVIL COMPANIES	131
4.9.2	CONSTRUCTION LEARNERS	134
4.9.3	ACCREDITED TRAINING PROVIDERS.....	138
4.9.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	140
4.9.5	SUMMARY: LEARNERSHIP OUTCOME	141
4.10	OPEN COMMENTS AND SKILLS NEEDS IN THE INDUSTRY.....	142
4.10.1	BUILDING AND CIVIL COMPANIES	142
4.10.2	CONSTRUCTION LEARNERS	144
4.10.3	ACCREDITED TRAINING PROVIDERS.....	144
4.10.4	CETA, INDUSTRY-RELATED ASSOCIATIONS AND BODIES	146
4.11	DIFFERENCES IN COMPANY GROUPS.....	147
4.12	DIFFERENCES IN LEARNER GROUPS.....	149
	CONCLUSION: CHAPTER 4.....	150
	CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS.....	151
5.1	INTRODUCTION	151
5.1.1	LIMITATIONS OF THE STUDY	151
5.1.2	GENERAL CONCLUSIONS	151
5.1.3	SPECIFIC CONCLUSIONS: PRIMARY OBSTACLES OBSERVED	153
5.2	RECOMMENDATIONS.....	154
5.2.1	GENERAL RECOMMENDATIONS	155
5.2.2	STAKEHOLDER SPECIFIC RECOMMENDATIONS	157
5.2.2.1	Building and civil companies	157
5.2.2.2	Construction learners	160
5.2.2.3	Accredited Training Providers	161
5.2.3	OVERALL RECOMMENDATION AND FUTURE RESEARCH.....	163
5.3	CONCLUSION.....	165
	REFERENCES.....	166

LIST OF TABLES

TABLE 2.1: Current national qualifications framework (NQF levels and qualifications).....	16
TABLE 2.2: Apprenticeships versus learnerships	26
TABLE 2.3: SMME definition	40
TABLE 3.1: Mixed methods design for key stakeholders	72
TABLE 3.2: Overall sample structure	76
TABLE 3.3: Research objectives and measurement instruments applied	80
TABLE 4.1: Learner respondent characteristics as compared to total population	94

Learnership satisfaction:

TABLE 4.2: Building and civil companies' results.....	97
TABLE 4.3: Construction learner results	100
TABLE 4.4: Accredited Training Provider results	102
TABLE 4.5: CETA and industry-related associations/bodies results.....	104
TABLE 4.6: Across all groups	105

Appropriateness of the learnership system:

TABLE 4.7: Building and civil companies' results.....	106
TABLE 4.8: Accredited Training Provider results	108
TABLE 4.9: CETA and industry-related associations/bodies results.....	109
TABLE 4.10: Across all groups	110

Provider learnership motivation:

TABLE 4.11: Building and civil companies' results.....	111
TABLE 4.12: Accredited Training Provider results	112
TABLE 4.13: CETA and industry-related associations/bodies results.....	113
TABLE 4.14: Across all groups	114

Provider learnership competence:

TABLE 4.15: Building and civil companies' results.....	115
TABLE 4.16: Accredited Training Provider results	118
TABLE 4.17: CETA and industry-related associations/bodies results.....	119
TABLE 4.18: Provider learnership competence according to company size.....	120
TABLE 4.19: Across all groups	121

Learnership processes:

TABLE 4.20: Building and civil companies' results.....	122
TABLE 4.21: Construction learner results	124
TABLE 4.22: Accredited Training Provider results	127
TABLE 4.23: CETA and industry-related associations/bodies results.....	130

Learnership outcome:

TABLE 4.24: Building and civil companies' results.....	132
TABLE 4.25: Construction learner results	135
TABLE 4.26: Learnership impact on employment, income and promotion	137
TABLE 4.27: Accredited Training Provider results	138
TABLE 4.28: CETA and industry-related associations/bodies results.....	140
TABLE 4.29: Across all groups	142
TABLE 4.30: Differences according to involvement in learnership training.....	147
TABLE 4.31: Differences according to company size	148
TABLE 4.32: Differences in learner groups.....	149

LIST OF FIGURES

FIGURE 1.1: Building material and labour shortages in the construction industry	4
FIGURE 2.1: Learnership framework and stakeholders	23
FIGURE 2.2: Learnership Evaluation Framework	68
FIGURE 4.1: Employability - Building and civil companies' results	133
FIGURE 4.2: Learner drop-out rates – Building and civil companies' results.....	134
FIGURE 4.3: Employment status – Construction learner results.....	136
FIGURE 4.4: Employability - Accredited Training Provider results.....	139
FIGURE 4.5: Learner drop-out rates – Accredited Training Provider results	139
FIGURE 4.6: Employability – CETA and industry-related associations/bodies results.....	141
FIGURE 4.7: Employment status by NQF level.....	150

LIST OF APPENDICES

APPENDIX A: New National Qualifications Framework (Draft: 03.11.2007).....	178
APPENDIX B: Research framework and data collection schedules	179
APPENDIX C: Building and Civil Company Questionnaire and Web-Survey design	181
APPENDIX D: Learner Questionnaire	188
APPENDIX E: Accredited Training Provider Questionnaire	194
APPENDIX F: CETA and Industry-related Associations/Bodies Questionnaire.....	200

Chapter 1: Background and Objectives of the Study

1.1 Introduction

Since the advent of democracy in 1994, South Africa has made significant progress in transforming the formerly racialised, and thus socially and economically divided society of the apartheid era into a more unified, liberal and market-oriented society. Far-reaching and radical reforms implemented by the South African government on all levels have underpinned the transition, which have led to considerable achievements in many respects: South Africa is the largest and most developed economy on the African continent (Knight, 2006; OECD, 2007). Relative success has been achieved on a number of key indicators such as GDP and inflation. The country's GDP averaged 3% between 1994 and 2003 and has moved to 5.3% in the fourth quarter of 2007 (Knight, 2006, p. 1; McGrath & Akoojee, 2007, p. 422; STATS SA, 2008a, p. 1). Inflation has fallen from a high of over 20% in 1986 to a low of 3.3% in 2004 and has remained relatively stable since then, only now being driven by international oil and food-price pressures into an upward trend standing at a current rate of 9.4% in February 2008 (South African Reserve Bank, 2008, p. 2). Foreign direct investment as well consumer confidence have continuously grown since 1994, just recently being affected by a volatile global economic and financial environment and a more restrictive monetary policy in order to counter domestic inflation (McGrath & Akoojee, 2007; OECD, 2007; South African Reserve Bank, 2008). As a consequence, South Africa today has stabilised in its macro-economic fundamentals and is better integrated into the world economy (OECD, 2007).

But despite these achievements great challenges remain. It is widely acknowledged that South Africa faces two important challenges apart from the prevalence of HIV/Aids and a high incidence of crime. The two challenges are, first a very low level of education and skills among the formerly disadvantaged majority of the population (resulting in part from the restrictive and exclusive educational policies of the apartheid era) and second, persistently, high levels of unemployment despite reasonable economic growth (Knight, 2006; Mayer & Altmann, 2005, OECD, 2007). According to the latest Global Competitiveness Report (World Economic Forum, 2007), in which South Africa ranked 44 out of 131 countries, an inadequately educated workforce has been identified as the most problematic factor for doing business. But skills deficits and unemployment do not only severely constrain the country in terms of future economic growth and further development. Most importantly, they are the greatest impediment towards a more equal society. After all, South Africa is among the most unequal societies in the world, with a Gini coefficient between 0.58 and 0.73 and the majority of the population (i.e. between 40% and 55% depending on the definition and methodology) is still living in poverty (Knight, 2006, p. 1; McGrath & Akoojee, 2007, pp. 422-423; OECD, 2007, p. 24; Seekings, 2007, p. 11). Accordingly, skills development, with the simultaneous provision of avenues for the absorption of low-/semi-skilled labour are the country's most critical challenges in realising a

better life for all, and thus are high on the national agenda. This becomes particularly clear in light of the following considerations.

1.2 Background and motivation of the study

Currently standing at 23% (on the narrow definition of the unemployment rate), South Africa has one of the highest unemployment rates in the world. On the broad definition, which includes 'discouraged work-seekers' (i.e. those who are not or no longer actively seeking work) the unemployment rate is even higher standing at around 34%. The incidence of unemployment is uneven according to age. Unemployment levels are significantly lower in higher age groups, and the highest unemployment rates are found among the youth (age 15-24). Stated at just below 50% in September 2007 this figure is dramatic, as it represents 32% of the total economically active population or 33% of the officially unemployed (STATS SA, 2008b, p. xix).

The explanation for the persistently high levels of unemployment is in part, that economic growth over the last 30 years has not yet been high enough to generate sufficient employment opportunities according to McGrath and Akoojee (2007). Other explanations are related to education, and thus a skills deficit, as the incidence of unemployment is not only uneven according to age but also to education. Unemployment significantly decreases with the level of education, thus being lowest in the population group with a degree or certificate (i.e. 3.1%) (STATS, SA, 2008b, p. 44). Accordingly, most of the current youth unemployment is due to a low level of education, skills not meeting the needs of employers (i.e. a 'skills-mismatch') and the lack of relevant work-experience (Kingdon & Knight, 2004; Soko, 2008, UNECA, 2005). In the given situation the imperative is clearly to strengthen the link between education and employment.

The South African Government has recognised skills development as being the most vital element of emancipation from poverty, and thus a key tool to deliver on both growth and social inclusion (DoL, 2007, McGrath & Akoojee, 2007, Ndebele, 2008). As a consequence, a number of new legislations specifically related to skills development have been introduced in recent years, most importantly in the years 1998 and 1999. The Skills Development Act of 1998 (Republic of South Africa (RSA), 1998) and the Skills Development Levies Act of 1999 (RSA, 1999) provide the legal underpinnings for what has been promoted as a "creative vehicle" and a "key means" for addressing unemployment and the scarce skills shortage in South Africa (Davies & Farquharson, 2004; Heitmann, 2003), namely the learnership system.

The learnership system, which was established by the Skills Development Act of 1998 (effectively in place since 2000), proposes a dual vocational training model towards a recognised national occupational qualification. In order to ensure work-related training, the system is defined as a structured learning programme, which combines theoretical learning at a training institution with practical on-the-job-training at the workplace. In order to enrol in a learnership, a candidate has to be contracted to an employer (de Jager, Hattingh & Hüster, 2002; Heitmann, 2004). The system therefore generates employment, while at the same

time developing the skills base of the learner according to labour market needs. In order to ensure growth and quality in the system the act has further made provision for the establishment of Sector Education and Training Authorities (SETAs), whose main responsibility is to oversee and promote general skills development, and learnership training in particular, in their respective economic sector (RSA, 1998). By means of the Skills Development Levies Act (RSA, 1999) the financial incentives for employers to invest in learnership training have been regulated.

Besides the provision of enabling legislation, the government has further stressed the importance and relevance of learnerships within one of its central strategies for skills development, namely the National Skills Development Strategy (NSDS). As reflected in the objectives of the first and second NSDS, the government places strong expectations on learnerships not only as a means of promoting and accelerating training in the workplace, but also as a key means of assisting designated groups (i.e. unemployed and new entrants) to acquire critical skills for their entrance into the labour market or even into self-employment (DoL, 2005; RSA, 2005).

But since its inception, even though it featured in the top 10 learning interventions of the most recent South African Training Industry Report (Meyer & Bushney, 2007, p. 37), the system has not always lived up to these expectations, particularly in terms of employer participation. This is especially true for the construction sector, which due to its labour intensive nature, using relatively elementary skills, is regarded as one of the key drivers for reducing unemployment and poverty (CETA, 2007a; cidb, 2004; Goldmann, 2003). Providing employment to more than 700000 people and being the third largest contributor to the current GDP growth (CETA, 2007a; STATS SA, 2008a), the construction sector is not only a direct means for promoting social inclusion and future development, but most importantly, a means to an end as it provides the necessary infrastructure to support economic growth and output in all other economic sectors (CETA, 2007a; Nankani, 2006).

Despite its pivotal role in creating the country's future, latest available submission rates of Workplace Skills plans (indicating participation in the learnership system), reveal that participation of the sector is very low, with only 1443 enterprises out of 23979 levy paying enterprises (i.e. 6%) submitting Workplace Skills Plans (CETA, 2007a). This low level of involvement is also confirmed by McGrath and Paterson (2007, p. 304) in the 2008 Human Resources Development Review, which indicates the average training rate of the Construction Education and Training Authority (CETA) at a rate of 12, way below the overall average (i.e. 24), and the second lowest after the insurance sector (i.e. 14). Thus the level of participation in learnership training is low, even though the industry currently faces severe skill constraints. A 25-year period of significant decline (ending in 2000), during which very little investment was made in training, has left this sector with a very low base of human capacity and a skilled workforce, that is mainly approaching retirement age (Ntinga, 2002; cidb, 2004, 2006b, 2007a). Since the low-point in 1999 the industry has seen a steady increase in infrastructure development and residential building, which has already severely strained the existing skills force and has challenged the industry to secure requisite skills (cidb, 2006b; 2007a).

Over and above these already existing skill constraints comes additional pressure from the government's so called Accelerated Shared Growth Initiative for South Africa (AsgiSA), allocating R372bn to a massive infrastructure programme for the provision of general infrastructure and in preparation for hosting the 2010 FIFA WorldCup (cidb, 2006b, 2007a; Thejane, 2007). There is strong consensus that the rising demand for construction is out-pacing the supply of appropriately trained and qualified people at all levels (cidb, 2007a, b). According to the latest quarterly analysis of the Bureau of Economic Research (BER, 2008, p. 17), no less than 98% of the building contractors are struggling to obtain the required number of skilled people, whilst 87% indicated that shortages of building materials were hampering their activities. As can be seen from Figure 1.1, the lack of skilled labour is therefore considered the primary constraint for building operations, followed by shortages in the availability of building material.



Figure 1.1: Building material and labour shortages in the construction industry

This finding is further confirmed by an analysis by Singh (2007), who also indicates that the shortage of skills presents a greater concern to AsgiSA than infrastructure materials supply. According to the cidb (2007a, p. 1) the skills shortage is even "... considered so serious it could sabotage the AsgiSA initiative". The primary skills needs identified in this context by the cidb (2007a), are highest at artisan level. Cidb (2007a, p. 2) states that the skill demand for key management is less than two hundred in most categories, whilst for skilled and semi-skilled artisans it is in the range of two to three thousand over a five-year period. The dire need for qualified artisans across at least 16 trade categories is also supported by the study of Haupt, Khan and Shakantu (2006) and the so called Joint Initiative on Priority Skills Acquisition (JIPSA), which was launched in March 2006. JIPSA aims to support the objectives of the AsgiSA by identifying skills constraints and establishing short-term but sustainable solutions to the skills problems (Department of Labour (DoL), 2007; McGrath & Akoojee, 2007; Mlambo-Ngcuka, 2006). Artisan shortages are estimated to be at least in the range of 7 500 each year over the next four years and growth is expected to go beyond

2010 both in the public and private sector. JIPSA projections indicate that there will be a shortage of some 29400 artisans in 2012 (Singh, 2007, p. 24).

As the learnership system is regarded as one of the major means for developing artisan skills in the industry, it is imperative that an efficient and effective implementation of the system in the industry be addressed urgently. This need is not only to be seen against the background of the current and future challenges, but especially against the above stated macro-economic perspective. The general importance of a functioning learnership system in the construction industry for reducing unemployment and ensuring overall future growth in South Africa, can thus not be overstated.

Various studies and research efforts on skills deficits and training needs have been undertaken by the CETA (for example CETA; 2005; CETA 2006a; CETA 2007a) as well as the cidb (for example cidb 2004, cidb 2006b; 2007b) and some external researchers (for example Haupt et al., 2006; Singh, 2007). These studies are mainly concerned with the current status of skills constraints, estimating shortages and highlighting the importance of an effective implementation of learnerships and training in the sector. However, no study so far has provided an in-depth analysis of the factors that are hampering the process of learnership training in the construction industry at the present time. The specific motivation of this study is thus to provide this insight.

1.3 Value of the study

It is anticipated that the outcome of this study will provide the key stakeholders responsible for the system with insight into the current major obstacles found and will therefore assist in establishing the instruments and tools necessary for creating an efficient and effective system in the industry. Moreover, it is expected that the various stakeholders of the learnership system will identify different obstacles to the process, due to their individual needs and interests, but will nevertheless express consensus on certain aspects. Mapping these joint interests, may contribute to fostering dialogue on learnerships and the cooperation between the different stakeholders in the system. Such dialogue and interaction is, for the most part, not yet taking place on a regular and meaningful basis and, in some cases, is even hampered by controversies, as for example documented between the CETA and one of the leading industry organisations, the MBSA (CETA, 2006b). This is observed even though the various stakeholders are all addressing effective skills development for the industry and therefore should have a primary interest to cooperate. Mead (as cited in Visser, 1999, p. 23) explains this phenomenon as follows: "As it emerges from its apartheid history, South Africa today appears to have an unusually low level of trust between different participants in the economic system". The specific value of this study thus may be that the established results are likelier to find greater acceptance across the stakeholder groups than previous findings have done, as it is presented by an independent researcher.

Furthermore, although a few research publications on learnerships and their implementation exist (for example Babb, 2004; Babb & Meyer, 2005; Berger & Douglas, 2004; Fester, 2006; Davies & Farquharson, 2004, Smith, Jennings & Solanki, 2005; Wolhuter, 2003), the present work is the first overall post-implementation study, that involves all stakeholders of a sector and also, importantly, attempts to evaluate both the efficiency and the effectiveness of the system in terms of its outcomes from a Human Resources Management perspective.

Accordingly, this first comprehensive evaluation of the system is not only significant for the construction industry, but also from a more general perspective, i.e. as an important contribution to what is considered to be a scarce research and knowledge area in South Africa (Davies & Farquharson, 2004; Smith, Jennings & Solanki, 2005). It is anticipated, that this study will provide a sound basis for future, ongoing evaluations of the implementation of the learnership system.

1.4 Research objectives

The overall objective of this study is to describe and shed light on the current state of the learnership system in the construction industry and to identify critical factors for its efficient and effective implementation. The major question to be answered is: What, according to the stakeholders of the system, is currently lacking to put an efficient and effective learnership system into place. In other words, what are the major obstacles they observe?

The research objectives can therefore be formulated as follows:

1. **Learnership satisfaction:** Investigate the general satisfaction level of the different stakeholders with the system.
2. **Appropriateness of the learnership system:** Determine the general appropriateness of the system (i.e. for developing artisans) from the providers' perspective.
3. **Provider learnership motivation:** Investigate the general motivation of the workplace and institutional providers for getting or staying involved in the learnership system.
4. **Provider learnership competence:** Investigate the learnership competence level of the providers (i.e. workplace/institutional providers).
5. **Learnership processes:** Identify the primary process needs of the stakeholders.
6. **Learnership outcome:** Determine the effectiveness of the system with regards to the development of applied competence and future employability or further education opportunities of the learners.
7. **Differences in company groups:** To determine if differences exist with regards to learnership satisfaction and appropriateness, provider learnership motivation and competence as well as learnership outcome, based on learnership involvement and company size.

8. **Differences in learner groups:** To determine if differences exist with regards to learnership outcome based upon employment prior to the learnership (i.e. 18.1/18.2 learners), completion of the learnership, involvement of an employer in the learnership as well as the NQF level of the learnership.
9. **Obstacles observed:** Identify the major obstacles observed.
10. **Proposals for interventions:** Make proposals regarding possible interventions in the system.

1.5 Scope of the study

Due to limited resources of the researcher and given time constraints, the study has to be given a clear scope. The following section outlines these aspects of the research.

Regional focus: The study focuses on the building and civil sector in the Western Cape, with supplementary information from leading representative organisations throughout the industry. Historically, the Western Cape has made a greater contribution to training in the building and civil industry than other regions (Goldmann, 2003). As CETA (2008a) states in its latest review, that the involvement of the industry through the submission of Work Place Skills Plans (2007-2008) is the second highest in the Western Cape. It therefore can be assumed, that a study based on the Western Cape, which is one of the most experienced key contributors to learnerships, could provide significant information for the industry as a whole.

Sub-sector focus and company-size: It is generally recognised that the construction sector is vast and complex, with a diverse range of training needs in each specific sub-sector. Focusing on the entire construction industry, which includes mainly 3 sub-sectors: construction (building and civils), materials manufacturing and built environment professionals (CETA, 2005; CETA, 2007a), would therefore not lead to solutions, that could be implemented directly. Since artisans are mainly used in the building and civil sector (CETA, 2005; cidb, 2006b) the scope of the research is restricted to companies in the building and civil sector. Within this sub-sector the focus will be on large, medium- and small/micro-sized enterprises.

Skills profile: The study focuses on the scarce skills priorities of the industry as discussed previously, and thus examines the efficiency and effectiveness of the learnership-system up to artisan level (NQF 1-4). Thus, the higher NQF levels are not in the primary scope of the study.

Timeframe: The learnership system is a skills development system that is highly influenced by national policies and strategies. Accordingly, one has to be constantly aware that the research is dealing with policies and strategies in motion. Even though the system has been effectively in place since 2000 it is still in a fairly young stage of development and changes may be introduced at any time. The current study is based on the latest information available at the time of writing, namely April 2008.

1.6 Overview of the study

This study aims to identify critical factors for the efficient and effective implementation of learnerships in the construction industry. To this end, the study is arranged as follows:

Chapter 1 presents an introduction to the background and motivation of the study, its specific value for learnership implementation in the construction industry as well as its general value for the broader context of skills development in South Africa. The chapter outlines the overall research objective and provides the detailed research aims to be achieved.

Chapter 2 provides the theoretical framework of the study. It introduces central concepts and characteristics of learnerships from a national strategic and legislative perspective and gives an in-depth overview of its historical roots and the key political processes, which have led to its emergence and implementation. The primary focus of the chapter is to lay the foundations for a learnership evaluation framework, that considers first, the South African challenges for the process of learnership implementation, and second the specific challenges given in the construction sector. In doing so, it outlines the critical challenges currently facing the learnership system in terms of implementation and presents a critique of the system. It then discusses the general theory and concepts of evaluation. Finally, it presents the learnership evaluation framework applied in the current study.

Chapter 3 describes the research design and methodology selected to address the research objectives. The sampling processes as well as the individual measuring instruments are discussed, as are the procedures for data collection. The final section of the chapter outlines the process of data recording and the methods used in the statistical analysis.

Chapter 4 discusses the research findings within the different stakeholder groups. Throughout the chapter, similarities and differences in the stakeholders' perspectives on learnerships are examined and highlighted.

Chapter 5 concludes the study by giving a general review of the study's findings in an overall conclusion. Specific conclusions are drawn for each stakeholder group in order to demonstrate the primary obstacles currently observed. The specific conclusions are then followed by detailed recommendations. These recommendations provide ideas for possible interventions in the learnership system. In addition, final proposals in terms of system interventions are made.

Chapter 2: Theoretical Framework

2.1 Introduction

A study of the efficiency and effectiveness of learnerships in the construction industry should consider the following five major aspects:

- The system of learnerships in its general structure and legislative conception as well as the national strategies and initiatives that influence it.
- The historical and methodological background of learnerships.
- The challenges of learnership implementation in South Africa in general and more specifically in the construction industry.
- A generally formulated critique on the system by previous theoretical analysis and practical studies.
- The theory of evaluating training and development programmes regarding efficiency and effectiveness.

The aforementioned five components form the conceptual framework for this study and consequently provide the structure for the following chapter.

2.2 The system of learnerships

The system of learnerships is complex and consists of various constituting components. As a clear understanding of the system is central to the overall framework of the current study, the following sections are included in order to define the system in detail.

2.2.1 Learnership definitions and components

The current literature on learnerships provides multiple definitions of learnerships. Most of these definitions include important components of the overall system, but do not link these to define the learnership system as a whole. In the following review of available definitions, the emerging elements will therefore be used to develop a more comprehensive definition of learnerships that will be applicable to this study.

As Vorwerk (2007a) points out the learnership system is one of the cornerstones of the new skills development legislation. Consequently, one of the first definitions to review is the official definition given to learnerships by national legislation. Learnerships are defined and regulated by the Skills Development Act (SDA) No.97 of 1998 (Republic of South Africa (RSA), 1998). According to Section 16 of the SDA learnerships require the following constituting elements for their establishment through a Sector Education and Training Authority (SETA):

The learnership

- (a) consists of a structured learning component;
- (b) includes practical work experience of a specified nature and duration;
- (c) would lead to a qualification registered by the South African Qualifications Authority (SAQA) and related to an occupation; and
- (d) is registered with the Director-General in the prescribed manner.

This list includes three essential components of a learnership, i.e. first a structured learning component, second practical work experience of a specified nature and duration and third the provision of a national qualification related to an occupation. These elements are summarised in a simplified definition given by de Jager et al. (2002, p. 21): “A learnership is a route to a nationally recognised qualification that relates to an occupation and consists of a structured learning component and practical work experience.” This is further elaborated on by the Construction Education and Training Authority’s (CETA, 2006c, p. 11) definition: “A learnership is a route to acquiring a qualification in the National Qualification Framework (NQF) that offers both theoretical and workplace experience in any chosen career. The learnership programme is a qualification that is outcomes-based. It allows learners to interact with the working environment while gaining an understanding of the workplace.”

Furthermore, CETA (2007a, p. 1) subsumes the following key elements under a learnership:

- Providing a planned and appropriate combination of learning outcomes with a defined purpose;
- Providing learners with applied competence and a basis for further learning;
- Comprising three components i.e. fundamental, core and elective unit standards;
- Entailing specified exit level outcomes;
- Generally achieving the required credits in a range of 30% to 70% of time spent at the workplace.

Further defining elements of learnerships thus include the application of an outcomes-based approach (with fundamental, core and elective standards) and the provision of applied competence as well as basis for further learning. The duration of the practical work experience by this definition is specified between (30%-70%). A fairly comprehensive definition of learnerships (including most of the above stated elements) is provided by Hallendorf (2002):

A learnership is a structured workplace learning programme that leads to a person achieving a qualification registered by the South African Qualifications Authority (SAQA) related to an occupation. Learnerships are supported by structured institutional learning and include practical work experience of a specified nature and duration. Learnerships are established by sectors and are registered with the Director-General Department of Labour. Learnership agreements are signed by the learner, workplace provider as well as the institutional provider. They are registered with the SETA responsible for the economic sector. (p. 9)

As can be seen from this definition two other important components are central to the establishment of a learnership. These are first, the signing of a learnership agreement between the three immediate parties to a learnership and second its registration with the SETA. As stipulated by Section 17 of the SDA (RSA, 1998, p. 22) the learnership agreement is a legally binding agreement that has to be concluded between the employer and the learner. This is in addition to a general contract of employment, depending on whether the learner was employed or not employed by the workplace provider prior to the learnership agreement. The SDA differentiates between two types of learners as referred to in Section 18 of the Act (RSA, 1998, p. 22):

- **Section 18.1 (Employed learner):** The learner is already employed prior to the agreement of the learnership. The contract of employment is not affected by the agreement.
- **Section 18.2 (Unemployed learner):** The learner is not employed prior to the agreement of the learnership. A contract of employment between the learner and the employer has to be entered into in addition to the learnership.

Both the contract of employment as well as the learnership agreement place explicit obligations (and concomitantly rights) on all three parties to the learnership agreement. The basic responsibilities according to the learnership agreement are (Department of Labour (DoL), 2001a, p. 8):

- **Employer duties:**
 - to employ the learner for the defined period
 - to provide the learner with practical work experience
 - to allow the learner to attend off-the-job education and training measures.
- **Learner duties:**
 - to work for the employer
 - to attend any education/training programmes specified.
- **Provider duties:**
 - to provide the learner with the education and training as specified
 - to support the learner in the learning process.

The contract of employment specifies the general working and employment conditions (i.e. working hours, leave, determination of contract, etc.) and, most importantly the payment of the learner are specified. As is stipulated by the Basic Conditions of Employment Act No. 75 of 1997, Sectoral Determination No. 5: Learnerships (RSA, 2001), the learner has to be paid an allowance. This allowance is calculated as a percentage of the 'qualified wage' based on the credits the learner has already achieved. The 'qualified wage' is defined as the wage the employer would pay the learner on obtaining the qualification for which the learnership is registered. The exact remuneration as well as its calculation (and the minimum allowance) are regulated by the Act.

Further defining elements of learnerships are thus the highly regulated contractual and legislative environment, the application to employed, pre- and unemployed learners as well as the provision of employment at a minimum allowance.

Davies and Farquharson (2004) contend that, in addition to these general constituting components, learnerships could also be described as a set of tools that are aimed at achieving a series of transformations in the South African education and training sector. These according to Davies and Farquharson (2004), include firstly, the closer aligning of education and training initiatives with labour market needs and secondly, the establishment of a stronger relationship between the structured learning component and an increasingly structured practical work experience. According to their account, the link between structured learning and work experience equips the learner with new competencies that are required by the labour market and also are essential for a lifelong learning process. This view is supported by Heitmann (2001), who argues that an aim the learnership mode of study is to overcome the split between theoretical education and practical workplace training. This promotes the acquisition of a qualification that demonstrates “work readiness” for the labour market. Learnerships are thus defined as learning routes that interlink theory and practice and are strongly led by the needs of the labour market.

Several accounts, namely Akoojee, Gewer and McGrath (2005), Davies and Farquharson (2004), Heitmann (2000) and Wolhuter (2003), categorise the dual nature of the learnership system as vocational education and training (VET), making it a key model for the provision of VET in South Africa. VET according to a definition by the VOCED thesaurus includes “... all activities aiming at providing the skills, knowledge and attitudes required for employment in a particular occupation or group of related occupations in any field of economic activity” (Farrell, 2006, p.18). This definition is confirmed by a 2002 publication of ILO (Descy & Tessaring, 2002, p. 1), which states that “... vocational education and training (VET) comprises all more or less organised or structured activities, which aim to provide people with knowledge, skills and competences that are necessary and sufficient in order to perform a job or a set of jobs”.

In summary, the following definition has been formulated in the context of the current study:

Learnerships are a work-based, demand-led route of learning that enables employed, pre- and unemployed learners to acquire a nationally recognised occupational qualification in a highly-regulated (contractual and legislative) environment, while being employed and earning a minimum allowance. The learning approach is holistic in that sense that it consists of both on-the-job practical workplace experience (min. 30%-max. 70%) as well as off-the-job institutional learning. Its core focus is on the outcome of the learning process. This outcome is intended to equip the learner with applied competence closely linked to labour market needs, which provides a thorough basis for employment and continued lifelong learning. Overall, the dual system of learnerships forms a central element of South Africa’s vocational education and training (VET) system.

2.2.2 System structures, concepts and principles

The structures, concepts and principles underlying the functioning and clear definition of learnerships are multi-fold and in need of further explanation. The terms in Section 2.2.1, i.e. Sector Education and Training Authority, South African Qualification Authority, National Qualification Framework and Outcomes-Based, will now be defined in further detail.

2.2.2.1 Sector Education and Training Authority (SETA)

Governed by the guidelines of the Skills Development Act and the Skills Development Levies Act No. 9 of 1999 (RSA, 1999) the Sector Education and Training Authorities (SETAs) are the key implementation agencies for establishing and ensuring quality in the learnership system. Overall 23 SETAs have been constituted, which are responsible for overseeing the training and skills development in a specific national economic sector (CETA, 2006c; Meyer, 2002). The designated SETA taking responsibility for the construction industry is the Construction Education and Training Authority (CETA).

Functions of SETAs: As regulated within the SDA (RSA, 1998, p. 14) the four main functions of SETAs, directly linked to the administering of learnerships, are (1) to develop a sector skills plan within the framework of the national skills development strategy, (2) to implement its sector skills plan, (3) to promote learnerships and finally (4) to register learnership agreements. The second and third function are subdivided in further tasks, which are defined as follows: Function 2 (i.e. the implementation of its sector skills plan is to be performed by establishing learnerships, approving workplace skills plans (WSP), allocating grants to employers, education and training providers and workers as well as monitoring education and training in the sector. Function 3 (i.e. the promotion of learnerships) is to be supported by identifying workplaces for practical experiences, supporting the development of learning materials, improving the facilitation of learning and assisting in the conclusion of learnership agreements. The other functions regulated by the SDA relate to the contributory role of the SETAs to the National Skills Development Strategy as well as their adequate functioning and performance. As such they include, for example: liaising with the National Skills Authority (NSA) on national skills development policies and strategies; reporting to the Director-General on income, expenditure and sector skills plan implementation and appointing the necessary staff to perform its functions.

Composition of SETAs: To perform these functions Section 11 of the Act stipulates that SETAs are made up of representative stakeholder bodies, i.e. members of organised labour and organised business (including small businesses), relevant government departments, and in appropriate cases, interested professional bodies and/or bargaining councils active in the relevant sector.

Sector Skills Plan (SSP): The Sector Skills Plan, which has to be developed by each SETA, has as its main purpose the outlining of the specific strengths and challenges of the sector related to employment and

skills development. It thus should comprise the following elements: General description of the sector (large, medium and small companies) including current education status and training supply, factors influencing change in the sector, assessment of future employment and skill needs, a vision of meeting the projected skills demand, a detailed action-plan and instruments for monitoring, reporting and evaluating the success of these measures through detailed performance indicators (DoL, 2001b; COSATU, 2000a).

2.2.2.2 South African Qualification Authority (SAQA) and Education and Training Quality Assurance (ETQA)

The South African Qualification Authority is the central 'quality authority' to all education and training in South Africa. Established by the South African Qualifications Authority Act No. 58 of 1995 (RSA, 1995) its primary mandate is to assure high quality education and training by overseeing the successful development and implementation of the National Qualification Framework. Due to its dual role as a quality assurance body for education and training it is accountable to both the Department of Labour and the Department of Education.

The two major tasks of SAQA related to this function as defined by the Department of Labour (DoL, 2001b, p. 18) and COSATU (2000a, p. 23) are:

1. to register national qualifications and their learning standards on the National Qualifications Framework; and
2. to monitor and ensure the quality of learning. This means that all education and training is delivered in a manner that enables the learner to reach the qualifications and standards registered by SAQA.

The first task is performed by registering Standard Generating Bodies (SGBs) and National Standards Bodies (NSBs). Standards Generating Bodies are bodies, which develop new qualifications and unit standards for registration on the National Qualification Framework. They propose these qualifications to the National Standards Bodies, which then put them forward to the SAQA board for registration. SGBs can be either set up either by the NSBs or by an interested group of role players in a sector. NSBs are representative stakeholder bodies of a defined learning field and as such are mainly made up of organised business, organised labour and education and training providers. Their main function is to ensure that all qualifications and standards proposed by the SGBs comply with the National Qualification Framework. The NSB responsible for the building and civil sector is NSB Field 12: Physical Planning and Construction.

The second task, which is to ensure the quality of learning, has been delegated to Education and Training Quality Assurance (ETQA) bodies, which are approved and accredited by the SAQA for a particular sector (i.e. economic sector, educational institutions and bodies, social sector). For all economic sectors, and thus for the quality assurance in learnerships each SETA has been approved the status of an ETQA (COSATU 2000a; DoL, 2001b). The Construction SETA (CETA) performs its role as an ETQA in its Quality Assurance Department (CETQA). The primary tasks of this department are (CETA, 2006c, p. 16):

- Accreditation of training providers
- Registration of assessors
- Quality assurance of learner achievements (i.e. certification)
- Evaluation of learning programmes
- Improvement of quality and relevance of education and training in the sector
- Support for provider development
- Recording of learner achievements

Accreditation of providers: In order to be able to provide a learnership each training provider (workplace and institutional) has to be approved and accredited by the CETQA. To achieve accreditation, the provider has to fulfil certain requirements as outlined both by the SAQA regulations and by the sector assurance body (for details refer to CETA, 2006c, pp. 16-17). The specified requirements serve the purpose of demonstrating that the provider has the structures as well as the financial, administrative and physical resources to support quality learning (DoL, 2001b).

2.2.2.3 National Qualifications Framework (NQF)

The cornerstone of the South African Qualifications Authority Act (RSA, 1995) is the successful implementation of the National Qualifications Framework (NQF) concept, which aims to provide a unified system for all education and training qualifications in South Africa and defines many different entry, exit and re-entry points into these qualifications (DoL, 2001b). The NQF is based on the principles of access (everyone should have access to high quality learning) and portability (skills should be transferable across different sectors and education/training systems). As the Act sets out in Section 1 (RSA, 1995, p. 2), the main objectives of the NQF are to:

- create an integrated national framework for learning achievements;
- facilitate access to, and mobility and progression in education, training and career paths;
- enhance the quality of education and training;
- accelerate the redress of past unfair discrimination in education, training and employment opportunities, and thereby
- contribute to the full personal development of each learner and the social and economic development of the nation at large.

For this purpose the NQF classifies all education and training qualifications on a scale of eight levels, which are sub-divided into three bands, the General Education and Training (GET) band, the Further Education and Training (FET) band and the Higher Education and Training (HET) band: The levels that can be obtained in this framework are represented in the following Table 2.1 (as adapted from GTZ & DoL, 2007; ILO, 2004; SAQA, 2008a).

TABLE 2.1
CURRENT NATIONAL QUALIFICATIONS FRAMEWORK (NQF LEVELS AND QUALIFICATIONS)

BAND	NQF LEVEL	TYPE OF QUALIFICATION
HIGHER EDUCATION AND TRAINING (HET)	8	<ul style="list-style-type: none"> ▪ Post-doctoral research degrees ▪ Doctorates ▪ Masters degrees
	7	<ul style="list-style-type: none"> ▪ Professional Qualifications ▪ Honours degrees
	6	<ul style="list-style-type: none"> ▪ National first degrees ▪ Higher diplomas
	5	<ul style="list-style-type: none"> ▪ National diplomas ▪ National certificates
	FURTHER EDUCATION AND TRAINING CERTIFICATE	
FURTHER EDUCATION AND TRAINING (FET)	4	<ul style="list-style-type: none"> ▪ Grade 12 / Standard 10
	3	<ul style="list-style-type: none"> ▪ Grade 11 / Standard 9 ▪ National certificates
	2	<ul style="list-style-type: none"> ▪ Grade 10 / Standard 8
GENERAL EDUCATION AND TRAINING CERTIFICATE		
GENERAL EDUCATION AND TRAINING (GET)	1	<ul style="list-style-type: none"> ▪ Grade 9 / Standard 7 ▪ ABET Level 4 ▪ National certificates

Revision of the NQF: The National Qualifications Framework with its eight levels of qualification is currently in the process of revision. A new NQF Bill, which was published for public comment in February 2008, will provide for a ten level National Qualifications Framework (NQF) (RSA, 2008). This revision seeks to provide scope for the full range of qualification types in the overall education, training and skills development system. The revised framework aims to provide particularly for the post-matric and pre-higher educational levels, where most of the intermediate skills development is located (Departments of Education & Labour, 2007; RSA, 2008; SAQA, 2008b). For a draft overview of the possible descriptors of the new ten level NQF refer to Appendix A.

NQF level of construction learnerships: The majority of the learnerships currently registered for the building and civil industry are qualifications at NQF level 1-4. Out of a total number of 64 learnerships only 13 learnerships are registered at NQF level 5-7 (DoL, 2006).

The DoL (2001b, p. 19) compares the NQF to "... a single, but wide ladder, which covers all the many possible learning and career paths" and is designed to facilitate sideways as well as upward movements in the different careers. At the heart of the NQF stands the rationale that the framework should enable learners to enter and move within this structure, irrespective whether previous learning was acquired through formal education/training or through experiential knowledge and work experience gained outside the formal system

(Departments of Education & Labour, 2003). Particularly important in this context, and consequently the context of learnerships is the principle of 'recognition of prior learning'. Recognition of prior learning (RPL) is the process of recognising people's existing skills and knowledge, regardless of where or how they learned and acquired them. It can be used at all levels in the NQF (COSATU, 2000b). The various levels in the ladder relate to the increasing complexity of skills required to achieve the defined 'exit level outcomes' of the registered qualifications. This is central to the concept of outcomes-based education.

2.2.2.4 Outcomes-Based Education and Training (OBET)

The NQF system sets the framework for outcomes-based education and training. Outcomes-based education is a concept, that focuses on "... what people know and can do as a result of learning rather than on the means used in order to achieve those results" (Hallendorff, 2002, p. 3). For achieving this aim all qualifications are made up of unit standards.

Unit standards are the smallest, independent part of a qualification, which when combined together lead to a recognised qualification. Unit standards, as required by the SAQA, are categorised in three ways: fundamental, core and electives. The first refers to those outcomes, which are critical for the qualification as a whole and for the provision of a basis for further learning (for example communications, language, numeracy). The second includes compulsory outcomes in the wider field of the occupation to which the qualification relates to (for example providing a costing for building maintenance and painting). The third enables the learner to select a learning area of his/her own interest. This may be a further specialisation (i.e. specialised building machine/application) or a more generic field of learning (i.e. service sector orientation/entrepreneurship learning). Each unit standard is then assigned a certain credit value based on the average (notional) learning time one needs to acquire the outcome. The basic formula used to calculate the credit value is: 10 notional hours equals 1 credit. According to SAQA each registered qualification has to be made up of a minimum of 120 credits, which roughly translates into a 12-months provision period for a learnership programme (DoL & GTZ, 1999; Hallendorff, 2002). A qualification level in the NQF is thus attained through acquiring the final credit-value, which has been specified to the qualification by the SAQA (Meyer, 2002). To acquire this final value the learner has to be assessed.

Assessment is the process "... that measures whether or not a learner has achieved the intended outcome(s) when comparing his/her capabilities to the assessment criteria set out in the relevant unit standard(s) or qualifications" (DoL & GTZ, 1999, p. 49). The principles applied in learnerships are: Formative, summative and integrative assessment. While formative assessment is employed during the learning period, summative and integrative assessment takes place at the end of the learning process. Summative assessment focuses on how well everything has been understood and learnt (for example setting out a building; casting foundations, laying bricks), while integrative assessment evaluates how well all parts have been understood to carry out a particular function (COSATU, 2000a). The assessment can only be performed by qualified assessors that have been registered with the CETA.

2.2.3 Financing mechanisms

The general financing of the learnership system is based on a levy-based scheme, regulated in the Skills Development Levies Act (RSA, 1999). Every employer, who is not generally exempt by the Act (i.e. public service employer, religious or charitable institutions, national or provincial public entity), and whose total employee payroll as calculated by PAYE (Pay as You Earn) to exceed R 500 000 per year, has to pay the levy. The leviable amount is 1% of the total employee payroll as calculated by PAYE.

The levy is collected by the South African Revenue Service (SARS), which allocates 20% to the National Skills Fund (NSF) under the financial supervision of the National Skills Authority (NSA) and pays the remaining 80% to all existing SETAs. The SETAs then demarcate 10% to its administration and the rest of the amount to the payout of grant payments (CETA, 2007b).

Two mandatory grants are available to building and civil employers (CETA, 2008a):

- **Planning grant:** 50% of the levy, paid out on submission and approval of a so called Workplace-Skills Plan (WSP), which identifies the training planned by the employer for each year.
- **Implementation grant:** A percentage of the levy that is paid out upon receipt and approval of an annual training implementation report (ATR) from the employer. No exact percentage is currently given.

In addition, certain discretionary grants for pursuing relevant skills development projects can be obtained under specific conditions.

Skills Development Facilitator (SDF): In order to submit a WSP/ATR and thus claim grants, employers have to appoint an employee or an external consultant as Skills Development Facilitator (SDF) and register the respective person with the CETA. The SDF assists and supports the employer in all functions related to the planning, development, implementation and submission of the WSP and ATR and acts as a contact person between the employer and the CETA. Small companies with limited resources may make use of a jointly appointed Group Skills Development Facilitator (CETA, 2008a; BANKSETA, 2008).

All grants are subject to the availability of funds from the CETA, and this aspect has been particularly difficult in the case of the CETA as financial mismanagement in the early years after its inception (e.g. double payments, fraudulent claims by unscrupulous training consultants/providers, increased size of grant payments after 2004, etc.) led to the CETA being considered technically insolvent by 2005. With commitments to grant finance exceeding its actual revenue no funds were any longer available for legitimate grant payments in the industry. Even though the financial situation has been partly resolved in 2006 through stricter control and management systems, so that the CETA has been entirely restored into a positive reserve of R83.861 million at the end of the financial year 06/07 (CETA; 2008b), the financial problems of the CETA have had a direct impact on the amount of training taking place in the industry. Most importantly,

the financial difficulties have resulted in a loss of trust in the industry regarding the credibility of the levy system (Christianson, 2007; Thejane, 2007).

It is worth noting, that compared to international standards this levy is considered relatively low, as elsewhere investment in training ranges between four and seven percent (cidb, 2004). This is confirmed by Thejane (2007). Thejane stresses that various studies in developing countries have shown that only an investment in training between three and six percent is sufficient to increase skills levels rapidly enough. Blaine (2007, p. 5) citing the chairman of the Joint Initiative for Priority Skills Acquisition (JIPSA), Gwede Mantashe, stresses that South African companies in particular need to spend at least 4% of their payroll "...to make a dent in the skills shortage".

Tax deductions: As an additional incentive for employers Section (12H) of the Income Tax Act No. 58, 1962 allows employers to deduct specified amounts of their payable income tax when they are conducting learnerships. These deductions apply at the time that learners are registered onto learnerships and again, once they have completed the learnership. The tax incentive increases in cases where the learner was previously unemployed or has a disability (FASSET, 2007).

2.2.4 National strategies and initiatives

Various national strategies and initiatives drive and promote the implementation of learnerships. These are mainly the Human Resource Development (HRD) Strategy, the National Skills Development Strategy II (NSDS II), the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) and the Joint Initiative on Priority Skills Acquisition (JIPSA).

2.2.4.1 Human Resource Development (HRD) Strategy

Officially introduced to the public in 2001 the Human Resource Development Strategy provides the overarching framework for the governments approach towards skills development. The overall vision of the strategy is "... a nation at work for a better life for all". In order to achieve its key mission, which in a broad sense is "... to maximize the potential of the people of South Africa through the acquisition of knowledge and skills" (DoL, 2001c, p. 10), the strategy formulates five objectives. These are (DoL, 2001c; Erasmus, Loedolff, Mda & Nel, 2007):

- Objective 1: Improving the foundations for human development;
- Objective 2: Improving the supply of high quality skills (particularly scarce skills), which are responsive to societal and economic need;
- Objective 3: Increasing employer participation in lifelong learning;

- Objective 4: Supporting employment growth through industrial policies, innovation, research and development.
- Objective 5: Ensuring that the four strategic objectives of the HRD strategy are linked.

Objectives 2 and 3 are particularly connected to the learnership system as they focus on scarce skills development in close collaboration with the labour market. All five strategic objectives provide success indicators and an indication of actions required. Furthermore each of the indicated actions identifies the responsible national agent (department/authority) for its implementation. This measure was taken in order to ensure that all governmental departments work closely together in the fulfilment of the HRD Strategy (DoL, 2001c). The contribution made by the Department of Labour towards skills development is outlined in the National Skills Development Strategy (DoL, 2001d).

2.2.4.2 National Skills Development Strategy II (2005-2010)

The National Skills Development Strategy (NSDS) II is the successor to the government's first five-year NSDS (2001-2005), which was introduced by the Department of Labour under advice from the National Skills Authority (NSA). Its main purpose is to set out clearly national priority skills areas and the primary objectives for skills development. In order to provide an exact measurement tool for its efficacy it includes five objectives that are each underpinned by clearly defined performance indicators and levers (DoL, 2005). The objectives and underlying success indicators of the current NSDS that refer directly to learnerships are as follows:

Objective 2: Promoting and accelerating quality training for all in the workplace:

- *Success Indicator 2.8: By March 2010 at least 125 000 workers assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured.*

Objective 4: Assisting designated groups, including new entrants to participate in accredited work, integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment:

- *Success Indicator 4.1: By March 2010 at least 125 000 unemployed people assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured.*

Compared to the objectives of the first NSDS, which mainly focused on quantity, the government now has clearly prioritised the quality and relevance of training provision towards important outcomes, namely completion and employment.

2.2.4.3 AsgiSA and JIPSA

In February 2006 the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) was officially launched in order to promote the governments mandate from 2004. This mandate is first to halve unemployment (from 30% to 15%) and poverty (from one-third to one-sixth of the population) by 2014 and second to accelerate employment equity. A task team was appointed in order to identify constraints in the economy and possible interventions for attaining a sustainable annual GDP growth rate of 6% in the long term. The most critical constraints and thus areas for interventions to be made (apart from massive investments in infrastructure) were found in the field of education and skills development, or more precisely in addressing critical skill shortages, currently hampering economic growth (McGrath & Akoojee, 2007, pp. 425-426).

The objectives and constraints envisaged in terms of skills by the AsgiSA gave rise to the Joint Initiative on Priority Skills Acquisition (JIPSA) task team in March 2006. Its primary mandate is to lead and support the implementation of AsgiSA and its objectives through the alignment of education and training with identified skills priorities in the short term. Furthermore, it is required to develop co-ordinated and effective HRD strategies for the medium and long-term perspective. For this purpose JIPSA has identified five 'high-profile priority skills areas' for immediate attention. The area, that is considered to be especially relevant to the context of this study, is the third skills field: "Artisanal and technical skills, with priority attention to infrastructure development, housing and energy, and in other areas identified as being in strong demand in the labour market" (DoL, 2007, p. 9). The artisan backlog estimated by JIPSA currently amounts to 7500 artisans per year. Thus a priority for JIPSA is the alignment and articulation of all training pathways leading to artisan status, especially the new vocational training pathway, which is the learnership (DoL, 2007; McGrath & Akoojee, 2007).

2.2.5 Legislation

The learnership system is not only influenced by national strategies and initiatives, but is also strictly regulated by legislation. Some of the major influencing acts have been stated before. There are eight major acts that impact on the legislative framework for learnership implementation. The following list provides a summarised overview of these acts and their primary functions in the given context (National Labour and Economic Development Institute (NALEDI), 2004, pp. 84-87; National Advisory Council on Innovation & Department of Science and Technology (NACI & DST), 2003, pp. 43-47):

- South African Qualifications Authority Act No 58, 1995: To ensure quality in education and training;
- Skills Development Act No 97, 1998: To ensure training delivery;
- Skills Development Levies Act No 9, 1999 and Income Tax Act No. 58, 1962: To finance training and make training affordable;

- Further Education and Training Act No 98, 1998: To transform public and private training institutions for high quality delivery;
- Employment Equity Act No 55, 1998 and Broad-Based Black Economic Empowerment Act No. 53, 2003: To ensure equitable training;
- Basic Conditions of Employment Act No 75, 1997: To formalise and regulate training;
- Labour Relations Act No. 66, 1995: To ensure a transparent training process;
- Occupational Health and Safety Act No. 85, 1993: To encourage training in health and safety related issues.

Added to these major acts are various additional regulations, amendments and notices, which for the purpose of this study do not need to be outlined any further.

2.2.6 Summary: Learnership framework and stakeholders

As can be seen from above, the set framework for learnerships implementation in the construction industry is highly complex and consists of multiple stakeholders, necessary for establishing an effective system. Hence, as formulated by Babb and Meyer (2005, p. 19) "... a learnership is by its nature a multistakeholder entity". This notion is both supported by de Jager et al. (2002) who regard the implementation of a learnership as a complex and multidimensional process and by Davies and Farquharson's (2004, p. 189) view that learnerships are by their definition "stakeholder-rich interventions". Consequently, they have to be implemented in an environment consisting of multiple stakeholders and the often complex interactions between them (Davies & Farquharson, 2004), which certainly impacts the actual implementation process.

Based on the above, Figure 2.1 graphically represents the major relationships and interactions between the stakeholders as well as the influencing factors for an effective learnership system in the construction industry.

As defined by Aspinwall, Simkins, Wilkinson & McAuley (1992, p. 84) "... a stakeholder is any group or individual who is affected by or can affect the future of a programme or activity". The immediate and accordingly key stakeholders for learnership implementation in the construction industry, identified by this graph are:

- the CETA/CETQA (with its constituting stakeholder bodies);
- the building and civil employers and their representative industry-associations;
- the learners; and
- the accredited training providers.

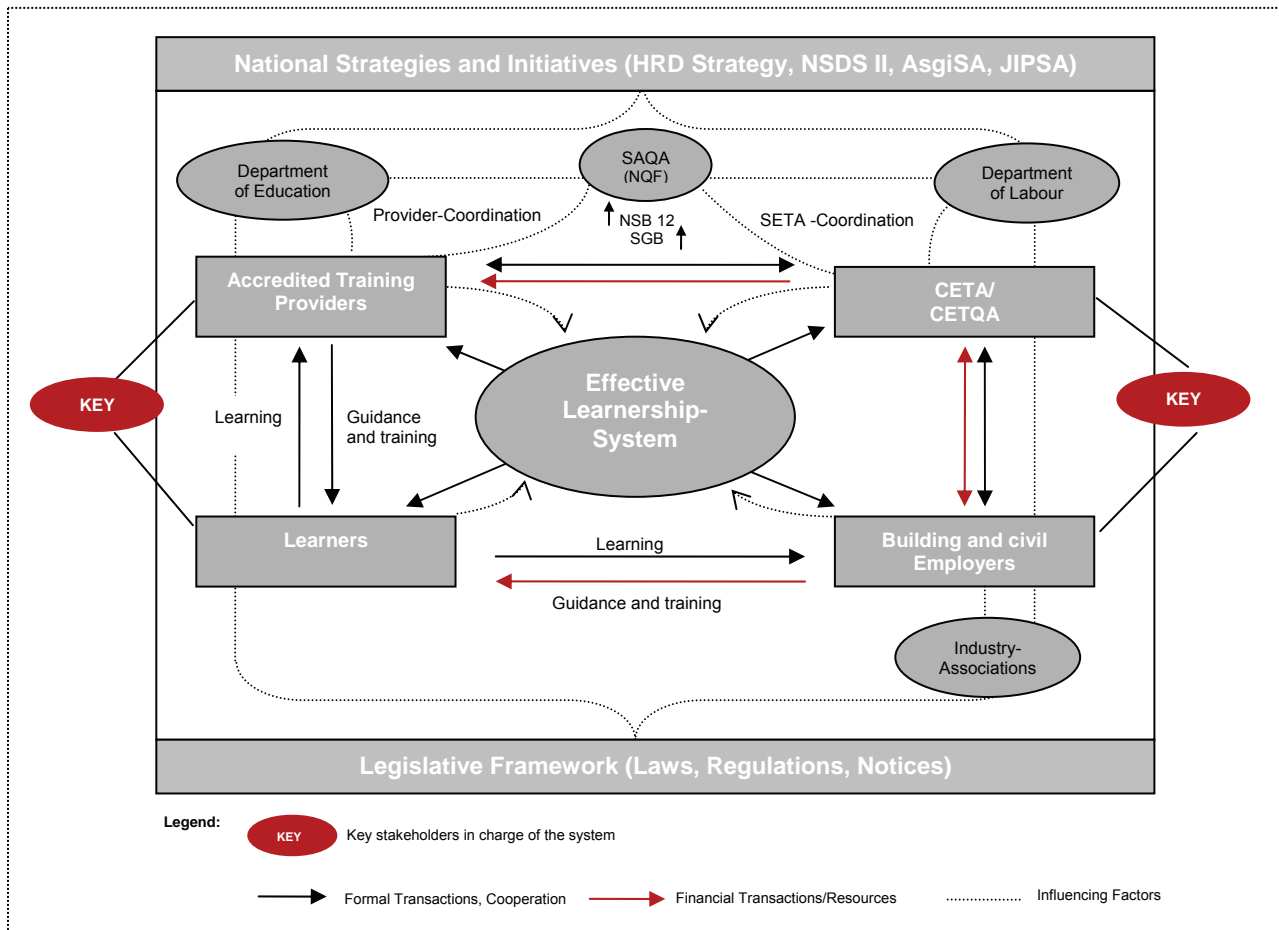


Figure 2.1: Learnership framework and stakeholders

2.3 Historical background and methodological development

The historical origins including the universal reform process of skills development prior to the introduction of learnerships have been described elsewhere and are the subject of various other studies and research papers, for example Badroodien and McGrath (2005, 2006); Carton and King (2004); Heitmann (2000) and Kraak (2004a). The objective of this section is to outline the historical origins of learnerships and to examine the key methodological elements of the reform process that have led to the introduction of learnerships. This is done in order to identify critical factors which have shaped and may still influence the present context of learnership implementation.

2.3.1 Historical background: The apprenticeship system

The origins of learnerships can be traced back to the apprenticeship system of the 1920s (Apprenticeship Act of 1922), which at the time was a racially defined training system reserved purely for the white segment of the South African population. Traditionally, the apprenticeship system was South Africa's major pathway

for intermediate skills development, and thus the qualification of white artisans for all major industry sectors, including the construction industry. Artisan apprentices were fully sponsored by an employer during their apprenticeship, which had an average duration of 3-5 years. Apprentices studied in part-time block release format at a technical college and were provided practical work experience under the supervision of a senior artisan at their workplace. The historically 'white' system only became inclusive and accessible to the African population with the reforms recommended by three state commissions in the late 1970s – the Wiehahn, Riekert and De Lange Commission (1977-1981). The commissions, which had been a reaction to the imminent skills shortage of this era, argued for a streamlining and rationalising of labour and training legislation as well as improved access for Africans to formal schooling, technical colleges and enterprise training. They also recommended a competency-based modular approach to training, with industry-based systems of accreditation controlled by employers (Allais, 2003). Based on these recommendations the statutory de-racialisation of the apprenticeship system became effective formally with the enactment of the Manpower Training Act in 1981 (Akoojee et al., 2005; Kraak, 2007). As a result of this new legislation, the National Training Board (NTB) was established in the same year, and its primary function was to serve as a national consultant for the development of policy strategies in the vocational education and training sector (Heitmann, 2000).

From the mid-80s the system began to experience a substantial and continuous decline, the first indication of which was a significant drop in the number of qualified artisans (from 13500 in 1985 to 5145 in 1999). In addition there was a significant decrease in the number of newly indentured apprentices (from 10758 in 1991 to a low of 3129 in 1999, signifying - 70.91%). For the building industry, the numbers dropped from 417 indentured apprentices in 1991 to 107 in 1999, a decline of 74.34% (Kraak, 2007, pp. 487-488).

Secondly, the system achieved very low placement rates after training, which was estimated between an average of 15% by the DoL (2001c, p. 32) and 33.6% by FET college graduates in 2001 (Kraak, 2003a). Kraak (2003a, pp. 680-681) reported that 69.7% of African and 24.2% of white qualified artisans remained unemployed. The low placement rates were due mainly to a social change in training conditions in the system over the years. With the introduction of the Manpower Training Act in 1981 and the years following the official de-racialisation, the racial distribution in the system became more and more inverted. Ninety percent of the students in technical colleges were now black and studied full-time, mostly without being able to obtain any employer participation (Kraak, 2007). This clearly indicated that even though the legal barriers for inclusion had been withdrawn, the system still seemed premised on the continued exclusion of Africans to equal employment opportunities. Other reasons, apart from the de-racialisation process, which may have supported the decline, were (Akoojee et al., 2005; Heitmann, 2000; Kraak, 2003a):

- The economic recession during the final phase of apartheid;
- Rising costs of training fees (up to 80% of a skilled labourer's wage);
- Reduction of subsidies and phasing out of tax concessions;
- Poor image of FET colleges, due to a lack of responsiveness to labour market requirements

Whatever the reasons for the decline were, a report of the HSRC in 1984 (*Investigation into the Training of Artisans*), levelled criticisms at and questioned the general quality of the training and the system of control for apprenticeships. The main concerns were related to the ability of the system to meet current technological skills requirements and the low quality of the practical workplace training. This was often unsupervised and unstructured on-the-job training, which did not always expose the apprentice to the full range of the trade. Moreover, the report stressed a lack of theoretical input and criticised the fact that the system attributed artisan status after 5 years irrespective of passing the trade test, i.e. only by 'effluxion of time'. A general dissatisfaction was further expressed with the time-based model, as it did not take into account the differing learning tempos of the apprentices. Other critics were concerned with the narrow confine of apprenticeships, which did not cater for all age categories, gender groups (highly male-dominated), skills levels (only artisans) and industrial sectors (Akoojee et al., 2005; Carton & King, 2004; Kraak, 2004a;b). They thus argued for a more responsive, inclusive and flexible skills development system to meet the needs of all (age, race and gender dimensions as well as employment sectors).

2.3.1.1 Apprenticeships versus learnerships: Characteristic features and differences

As the apprenticeship model under these conditions did not seem a realistic option for a national skills solution, the concept of learnerships was introduced. The new system sought to be more flexible, provide for the needs of all and to address the criticisms levelled at the declining apprenticeship system (DoL, 2001e). The constituent elements and key features of the two systems thus differed markedly. To illustrate these major differences the key characteristics of the apprenticeship and the learnership system are contrasted in Table 2.2. The table has been based on the views of Akoojee et al. (2005), Davies and Farquharson (2004), Erasmus et al. (2007), as well as Kraak (2004b). In this table the relevant features of the former apprenticeship system of the building and civil industry, as referred to by Nel (1997) are provided in italics. As is evident from the table, the application of learnerships as compared to apprenticeships has been extended to *sectors*, which are larger than *industries* and include a number of industries, previously not incorporated by the Industry Training Boards. Moreover, they apply to a much wider range of occupational and qualification levels. The new system addresses a larger number of potential learners, in terms of employment status as well as age. It places the learner at the centre of a more active learning process towards a specified outcome. Accordingly, the primary role of the learner in a learnership is that of a learner and not that of an employee as often practised in apprenticeships. The integration between learning and application happens deliberately and requires a collaborative planning between institutional and workplace provider. In addition, the shorter duration as well as the possibility of engaging multiple providers in the workplace seeks makes learnerships more responsive to economic needs, most notably to the needs of small, micro and medium enterprises (SMME). The original idea of the apprenticeship system for training artisans over a learning period of 3-5 years was transcribed into the learnerships system by

placing a sequence of learnerships at consecutive levels (for example NQF 1-4) towards the qualification of an artisan.

TABLE 2.2
APPRENTICESHIPS VERSUS LEARNERSHIPS: CHARACTERISTIC FEATURES AND MAIN DIFFERENCES

Characteristic	Apprenticeships	Learnerships
Offering principle	Mainly supply-side driven: Offered by providers, independently of an articulated demand by the labour market, limited to some industries.	Demand-led: Offered in response to an articulated social or economic need for all sectors.
Trained qualifications	Only blue collar trades at intermediate skills levels (N1-N4) <i>Mainly building construction workers of different designated trades at N2 level</i>	All range of occupations in the NQF, in which a work-based learning route is viable.
Primary quality assurance institution	Industry Training Board (ITB) <i>BITB (Building Industry Training Board) and Civil Engineering Industry Training Board (CEITB)</i>	Sector Education and Training Authority (SETA) <i>Construction Education and Training Authority (CETA)</i>
Addressed learner group	Indentured learners under the age of 24	All types of learners (employed, pre- and unemployed) with disparate levels of prior learning. No age restrictions.
Underlying training principle	Time-based, Input-oriented Time-based theoretical education combined with practical, less structured on-the-job learning for ad hoc occupational application. Focus on input rather than an active participation of the learner in the learning process.	Outcomes-based, Learner oriented Integration of theoretical education and structured workplace training of a specified nature and duration, including generic skills with a clear future orientation. The learner stands at the centre of the process and takes an active role in learning.
Training providers (Theoretical; Practical)	Technical colleges; one employer <i>Building Industries Federation of South Africa (BIFSA) training college; accredited institutions</i>	Accredited provider(s); Employer/group of employers (large, medium, small)
Duration	3-5 years for qualifying artisans depending on the specific trade. Part-time studies in block release format.	On average 12-18 months depending on the final credit value of the NQF qualification. For artisan level several learnerships leading to NQF level 3-4. Format according to needs, not specified.
Assessment	Final, central trade test <i>Conducted by BIFSA on behalf of BITB</i>	Multiple, individual assessments by accredited assessors. Evidence provided in portfolio (i.e. Portfolio of Evidence).
Primary legislation	Manpower Training Act of 1981	Skills Development Act of 1998
Funding	Voluntary levy collected and determined by the responsible Industry Training Board. (Manpower Training Amendment Act of 1990) <i>1.5% levy collected by BITB</i>	Mandatory and nationally fixed levy collected by SARS and disbursed to the SETA. (Skills Development Levies Act of 1999)

2.3.1.2 Continuation of apprenticeships

Despite the introduction of the new learnership system, the apprenticeship system has been continued through Section 13 and Section 28 of the Manpower Training Act of 1981. Whilst the majority of the regulations of the Act were repealed after the enactment of the new skills legislation, these sections have been indefinitely retained.

They still provide for two major apprenticeship pathways to obtain artisan status. Section 13 refers to the traditionally young indentured learners under the age of 24, who acquire their qualification over the full time period and pass the central trade test as prescribed by the Act. Section 28 applies to adult learners, who are not indentured as prescribed in Section 13, but who prove sufficient work experience to the Registrar of Training to undergo the trade test for attaining an artisan qualification. In the new system the NSA (National Skills Authority) has taken over the responsibility of the former National Training Board (NTB), the SETAs the responsibilities of the former ITB and accredited training institutions provide the theoretical training (Kraak, 2007). Between April 1, 2001 and March 31, 2005 the CETA registered 351 enrolled apprentices (only Section 13) for the construction industry as compared to 1042 registered learners in 2004 (pp. 489; 498). Consequently, the apprenticeship system still exists parallel to the learnership route as a recognised pathway for qualifying as an artisan. The continuation of apprenticeships has caused confusion in practice concerning the actual role of the two systems. As stated by Erasmus et al. (2007), the learnership system will replace the apprenticeship system as no new apprenticeships will be registered by the DoL and a date will be declared on which all apprenticeships will become learnerships. However, the current wording of the NSDS targets for work-based training programmes (refer to 2.2.4.2) though contradicts this statement as it explicitly includes apprenticeships along with learnerships and reflects a continued governmental support for the apprenticeship route. Traditionally, the Western Cape has been strong in terms of trades and thus the training of trades through the apprenticeship system (Kruss, 2004).

2.3.2 Methodological development: The reform process

The initial democratisation attempts of the late 1970s and early 1980s described above were only a first step towards the universal (legislative, structural and organisational) reform process of skills policies, which led towards the introduction of learnerships. From 1989 this transformation process evolved over a period of more than a decade, which can be summarised broadly into three major stages (Badroodien & McGrath, 2005):

- **Stage 1 (1989-1994):** Evolution of ideas and the 'integrative' vision
- **Stage 2 (1994-1999):** Transforming policy ideas into legislation
- **Stage 3 (1999-today):** Implementing the overall vision

2.3.2.1 Stage 1: Evolution of ideas and the 'integrative' vision (1989-1994)

The reform initiatives of the early and mid-1990s were driven by the determination to move radically and ultimately away from the disintegrative legacy of apartheid, which had been imposed on all forms of education and training. In its first stage this process was dominated by non-racial trade union movements, particularly NUMSA (National Union of Metal Workers) and the Congress of South African Trade Unions (COSATU).

Initiated by NUMSA in the late 1980s, 26 workers from all skills levels in the union joined a 'Vocational Training Project', went abroad in 1989 to study training practices in Tanzania, Zimbabwe, Sweden, Italy, Britain and Australia. The project was funded by an Australian NGO. Two years later, the 1991 NUMSA project's report already stressed key elements of the present skills development system. These were: The need for a system of paid education and training leave, the recognition of prior learning (RPL), the notion of a link between training, skills, grading and wages as well as a framework for the integration of general education and vocational education and training. The process initiated by the NUMSA project provided the basis for a subsequent COSATU project, the 1991 Participatory Research Project (PRP), funded by the Swedish International Development Agency (Sida). As represented in documents such as the Education Renewal Strategy (1991), COSATU took on board the initiated 'integrative' vision of the NUMSA project and also proposed coherent and systematic linkages between education and training (Kgobe, 1997). Furthermore, the project was concerned with adult basic education (ABET) components as one possible way to uplift national skills level (Badroodien & McGrath, 2005).

Parallel to these movements, the National Training Board (NTB) published a first provisional strategy on vocational education and training (*The NTB/HSRC Investigation into a National Training Strategy*) in 1991. However, the document which had taken almost ten years to be developed had no chance of being implemented, as it had not involved important stakeholders from the unions. Despite its valuable content, i.e. a unified department of education and training, a single system of academic and vocational qualifications and closer linkages between academic and vocational education and training, it was thus met with harsh criticisms from the public and could not be followed through by the government (Heitmann, 2000; Kraak, 2004a).

One of the first documents, that explicitly articulated a more accepted approach towards the integration of vocational education and training, was the sub-sector review, *Towards a Unified Technical and Vocational Education and Training Sector*, published in October 1992. It was an initiative which was launched by the Commission of the European Communities (CEC) in Pretoria. Under the leadership and cooperation of a South African NGO (Kagiso Trust), the British Development Agency (OAD) and the German Technical Co-operation (GTZ), the review identified the potential areas for further development as well as the current obstacles for vocational education and training. Beginning in 1992, negotiations on a new skills development system thus started to emerge (Badroodien & McGrath, 2005).

Having learned from the past experiences the NTB then established a National Task Team (NTT) in 1993, in which all stakeholder groups were represented proportionately, and accordingly consisted of more than a 150 selected members of the NTB, employers (organised business), the trade unions (e.g. COSATU) and providers of education and training. The task team was made up of eight working committees, which were each assigned a specific mandate of investigation. All topics under investigation were related to the specific situation and context of South Africa. The teams were thus concerned with topics, such as sector and context analysis of vocational education and training in South Africa (Team 1); adult basic education and training for the workplace and access to vocational education and training (Team 4); Labour market-related vocational education and training strategies (Team 6); etc. As one of the task teams was given the mandate to provide a comparative study of international 'best practices' on vocational education and training systems, research was undertaken that included eight nations, among them industrialised nations, emerging markets and developing countries, namely Australia, Brazil, England, Germany, Malaysia, Singapore, Tanzania and Zimbabwe. The research was funded by GTZ and conducted with South African participation under coordination of the Technical University of Berlin (Heitmann, 2000; Badroodien & McGrath, 2005). The final report, issued by the NTB in 1994, Discussion Document on a National Training Strategy Initiative (NTSI), argued for a number of important changes, including (DoL, 2001a, p. 3):

- The integration of education and training;
- A demand-led provision of education and training that would deliver towards national needs;
- A credit system that would allow for portability and progression within the national education and training systems.

The 12 principles which were outlined in this document captured the essence of the Green Paper on Skills Development, which was only published three years later in 1997 (Carton & King, 2004).

It was only then, that the ideas taken up by the National Training Board were transferred into the Department of Education's official discourse. With additional initiatives such as the National Education Policy Investigation (NEPI) and the Centre for Education Policy Development of the ANC, the vision for an integrated approach to education and training was subsequently further elaborated. The ongoing debates and political positions towards the NQF during this time were highly influenced by similar strategic debates to be found in England and Scotland (NVQ debate) and New Zealand and Australia (SVQ debate) (Heitmann, 2000; Carton & King, 2004). In 1994, the ANC gave a commitment to a single National Qualifications Framework (ANC Policy Framework Document). This document already included a draft bill on the NQF (Kgobe, 1997).

2.3.2.2 Stage 2: Transforming policy ideas into legislation (1994-1999)

By the time the ANC-led government took office in 1994, the ANC already had a clearly articulated policy framework for the NQF ready at hand and immediately appointed an interdepartmental task team from the

Departments of Education and Labour to prepare the framework for its further transformation into legislation. With the new government leading COSATU members that took part in the previous skills debate had become part of the new DoL, and accordingly continued to influence this process in the department.

One of the most profound and far-reaching decisions, that were made at this point in time, was to keep education and training under the jurisdiction of two different departments (the Departments of Education and Labour), despite the clear intention to pursue an integrated vision for both (Badroodien & McGrath, 2005). On the education side there was further a division of responsibilities between the national department and nine new provincial departments (Akoojee et al., 2005). In early 1995, the government presented the White Paper: Education and Training in Democratic South Africa: First Steps to Develop a New System. On the basis of this paper parliament passed the SAQA Act in 1995 for the establishment of SAQA as the central overlooking authority for the NQF implementation (Heitmann, 2000).

From 1995, further efforts were made with the support of various international partners (i.e. the Australian, Danish, Dutch, Irish, German governments and the World Bank) to transform the previously developed ideas into legislation (Badroodien & McGrath, 2005; Carton & King, 2004; Heitmann, 2000). The Green Paper: A Skills Development Strategy for Economic and Employment Growth in 1997 finally proposed the transformed skills development system, which led to the establishment of learnerships, as it envisaged the following three key mechanisms for its implementation: The levy-grant system, the establishment of a series of new SETAs and the introduction of the notion of learnerships (Badroodien & McGrath, 2005; 2006). The learnership system became official legislation when the proposals made by the Green paper became national law through the Skills Development Act in 1998 and the Skills Development Levies Act in 1999.

The most important and prominent support, that should be noted in the context of learnerships, during this period came from the GTZ SDSI (Skills Development Strategy Initiative Support) programme, the Danish Government and the Worldbank. The Worldbank (through a Japanese trust fund) financially supported the research into international examples for applicable funding models (i.e. the levy grant system). The support from the two other partners concentrated on projects that would shed light on the practical elements essential to the efficient and effective implementation of the new skills development system. Consequently, projects sponsored by the SDSI Programme for example concentrated on issues such as the development of a framework for establishing learnerships, the quality assurance functions of SETAs (DoL & GTZ, 1999), the standards and qualifications required by educators and trainers for learnerships in the different sectors (Education, Training and Development Practices (ETDP) Project), the capacity building of the members of the NSBs (35 workshops), the demarcation and development of the SETAs a baseline study of ABET as well as experimental projects for the mining industry and the specific needs of SMME (jewellery and gemstone industry).

From 1997 to 1999 Danida (the Danish development agency) in association with the Provincial Department of Labour additionally tested the learnership system in rather demanding, but importantly, 'real' conditions:

The project concentrated on the construction and tourism industry in KwaZulu-Natal focussing on the unemployed outside the urban areas. The valuable lessons learnt from this pilot testing were compiled in a *Review Report on the Implementation of Learnerships* in 1998 and further discussed in two public workshops (Durban and Pretoria) in 1999 (Badroodien & McGrath, 2005; Carton & King, 2004). Another pilot project was funded and supported by GTZ from 1998-2000. The project concentrated on developing a learnership scheme for the plastics industry. Important lessons from this project were also compiled in a detailed project report and made available for ongoing policy discussion on the macro level (GTZ, 2001). Despite this documentation of 'valuable lessons learnt' and its public availability and discussion, concerns have been expressed about the overall dissemination and effective implementation of these experimental learning lessons (Badroodien & McGrath, 2005; Vorwerk, 2005a).

2.3.2.3 Stage 3: Implementing the overall vision (From late 1999-today)

Since late 1999, when the main legislative framework was put into place and the new system had been tried out in various experimental settings, the focus shifted to the challenge of actual implementation. Most important in this initial implementation phase was the enormous technical support programme (i.e. The Labour Market Skills Development Programme) funded by the EC, with a total value of 46 million Euros, and 17 long-term and various short-term international and local technical assistants (Badroodien & McGrath, 2005, p. 18). This programme provided hands-on technical assistance to the DoL, the SETAs, the NSA and other stakeholder bodies in all aspects of the new policy implementation, for example the technicalities of the levy grant system. Through six internationally tendered projects it also supported the design of one of the key documents of this stage, the first NSDS. Other technical assistance projects were concerned with the legal positioning and the establishment of a quality management system for the SETAs and the development of learnerships and youth programmes (Badroodien & McGrath, 2005). The work of supporting the practical implementation has been continued up to today.

Another pivotal point in this stage, relevant to the implementation of learnerships, was the paper '*A New institutional landscape for public further education and training colleges*' published by the DoE in 2001. As a result of this paper the existing 152 technical colleges throughout the country were merged into 50 FET colleges. This merger process resulted in previously disadvantaged colleges being integrated with previously advantaged colleges. Despite this merger process, the college curriculum itself remained largely unchanged and still mainly limited to theory-based programmes (Kraak, 2004b). The *New Institutional Landscape* is the most recent policy statement in the context of FET (Akoojee, McGrath & Visser, 2007).

2.3.2.4 Review and assessment of the reform process

Considering the above points, one may formulate the following summary from a methodological point of view:

The reform process leading to the introduction of learnerships has been a long-term and thus deeply considered 'South African-owned' reform. It emerged from a nationally acknowledged need and was developed under the participation of all primary stakeholders, with adapted best practices and strong support from the international community.

This formulation was chosen, because at every stage the reform process was led and driven by a high level of national ownership, firstly by the unions and then adapted by the government with the participation of the remaining stakeholders (employers, education and training providers). Whilst learning from the successes and failures of various other international skills development systems, it took into account and adapted the systems to the uniqueness of the South African requirements. The strong awareness of the dangers of "decontextualised borrowing" and the importance of a South-Africanised approach were articulated in the NTSI document of 1994, which considered the "... importation of an education and training system as a whole or in part without the adaptation to the local needs" as highly undesirable (Carton & King, 2004, p. 24; Badroodien & McGrath, 2005). International development agencies provided the funding for the necessary research, the access to international knowledge and best practices as well as hands-on support in the phase of implementation. Moreover, the international support made sure, that the envisaged 'adapted' system could be tested in a real context prior to its nationwide implementation, even though the lessons learnt may have not been effectively integrated overall. As can be seen from above, the international role was on of assisting rather than developing and was always carried out in close collaboration with South African stakeholders.

Despite the various criticisms levelled at the reform process and its envisaged transformation policies (refer to 2.5), the reform process in South Africa and the series of papers underpinning these reforms have been considered by Carton and King (2004, p. 7) as "... some of the most thoughtful and persuasive that have appeared in any country emerging from a similar (minority or colonial) context". Heitmann (1999) as cited in the same account (p. 28) takes this consideration even further as he calls the reform "... possibly one of the most advanced skills development plans developed by any nation in the world". International donors have been ready to assist within this process when needed, but the overall negotiation and development of the transformation has entirely emerged from and remained in the hands of South African stakeholders throughout (Badroodien & McGrath, 2005). Above all, the process consequently has been termed "a shining example" of a consultative process in interaction with the local society (Carton & King, 2004, p. 7). The methodological review and assessment of the reform process thus suggests that the new system of learnerships has been the result of a largely exemplary national system process, which involved primary stakeholders, borrowed from internationally well reflected examples and took into account major requirements of the domestic context. This reform process provided for the learnerships overall fundamental settings on a conceptual level. In its practical implementation though, it has to deal with the wide array of constraints and the particular challenges to be found in the South African as well as each specific sub-sector context. The inherent risk in this implementation process is probably best illustrated by Margalit's (2005, p 136) comment on the NQF: "No one can dispute the admirable principles upon which the NQF is

based. However, understanding is often lost between the vision of the ideal and its practical implementation.”

2.4 The challenges of learnership implementation

The previous discussion will now be used to underline the specific challenges of learnership implementation in the South African construction industry. For this purpose the section firstly focuses on the unique dynamics of the South African education and training context and secondly discusses the training particularities of the construction sector.

2.4.1 South African challenges

Apart from dealing with the general pressures produced by globalisation and the knowledge economy, South Africa faces some unique domestic challenges in the area of skills development. These challenges have been mainly inherited from the apartheid era.

2.4.1.1 Education levels (literacy, numeracy and language)

Among the main challenges inherited from apartheid is the high illiteracy and generally low (or even absent) level of schooling among the African majority. This challenge has resulted directly from the unequal and inadequate education policies of this era and presented the most acute problem to the incoming state in 1994. The overwhelming magnitude of this challenge is presented in a report by the Joint Education Trust published in the same year, cited by Heitmann (2000). According to this report approximately 7.5 million people aged 15 and older were illiterate or ‘severely undereducated’. Almost 3 million were totally unschooled and another 4.5 million had so little primary education that they were considered to be ‘barely literate’. Overall, the figures revealed an adult illiteracy rate of 29 percent of the total population (p. 101). A study conducted in 1999 by the UNESCO confirmed the persistence of these low literacy levels and in addition demonstrated poor overall numeracy skills. The average literacy score and numeracy score for Grade 4 learners shown by this study were standing at 48.1 percent and 30.0 percent as compared to 77.9 and 60.4 percent in Tunisia (DoL, 2001c, p. 25). Thus, low literacy and numeracy were the most pressing concerns.

Despite relatively high expenditure in the education system (particularly ABET) over the last few years, these problems persist as the latest analysis in the HRD Review 2008 reveals (Baatjes, 2007, Shindler, 2007). Statistics from the latest available Census data (2001) show that 14.6 million or 48 percent of adults (using the definition of an adult being someone aged 15 and over) remain under-educated. The percentage of under-educated adults remained more or less constant since 1995 (46 percent), but the actual number of under-educated adults is on the rise (12.2 million in 1995 as compared to 14.6 million in 2001) (Baatjes,

2007, p. 210). This, according to Baatjes, suggests that literacy and numeracy education in public schooling still require serious attention. Various internationally commissioned tests on reading as well as mathematics/science, in the period 2000-2003 support this suggestion from Baatjes. As demonstrated by these studies South African learners on average still perform poorly in these fields as compared to other countries. For example, South Africa ranked eighth in a 2000-2002 study on reading and mathematics skills across 14 African countries by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) (Shindler, 2007, p. 245). A low achievement in mathematics is further confirmed by a study in 2003 (for trends in international mathematics and science) across 50 countries worldwide, in which South Africa scored the lowest average marks of all participating countries (Shindler, 2007, p. 244). More recent data are provided by Metcalfe (2008, p. 10), based on the 2005 Grade 6 evaluation. In this evaluation only 28% performed at the required standard in numeracy and for literacy it was 38%. In addition, the matric examination, which functions as the "... yardstick for the performance of the schooling system", shows that from almost 1 million 18-year-olds, a mere 24143 passed matric mathematics in 2004 on the higher grade and every year an average of 33 percent failed (Metcalfe, 2008, p. 10; Woolard & Woolard, 2007, p. 84). According to Shindler (2007) and Metcalfe (2008) South African learners thus still lack the key qualifications needed in the economy (particularly literacy and numeracy skills). This conclusion though, can only be based on out-dated data, as more recent data across the education system on these issues is not available. The lack of current system-wide data on these major issues provides a challenge in itself.

Another major challenge in the context of learning is the large variety of vernacular languages. With eleven officially recognised languages, i.e. the two official languages of the former apartheid era (Afrikaans and English) and the nine major African languages of the country (Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, isiNdebele, isiXhosa and isiZulu), South Africa faces the challenge of an environment, in which according to 1996 Census data only a minority of the population indicated English as their home language. According to the Census Zulu (22.9%) and Xhosa (17.9%) are the most widely spoken home languages, followed by Afrikaans (14.6%) and English with only 8.6% (Webb, 2002, p. 7). Thus even though the other languages are numerically larger, they have minor significance in language political-terms. According to Webb (2002) English is the major language in terms of power and prestige, subsequently followed by Afrikaans. The African languages are effectively marginalised. Accordingly, many learners view English as a requirement for employment and choose to learn and write their examinations in English even though it is not their mother-tongue. In 2003, pass rates in ABET were 70% in mother tongue as compared to 50% in English (Baatjes, 2007, p. 216), which illustrates the language related challenge. This does not only affect the acquisition of knowledge, but also restricts the development of learners' cognitive, affective and social skills (Webb, 2001). Often teaching and learning in the medium of English is a mere practical requirement, not only with regards to a lack of resources to develop learning material in multiple languages, but also with regards to finding a common basis of communication for all learners in the classroom. Above all, it is an indispensable requirement for employment since English (apart from Afrikaans) is the language of the South African workplace (Webb, 2001).

Learnerships in this context thus need to address a reality in which a vast majority of potential learners do not only have a poor literacy and numeracy skills (or even no basic schooling at all), but most probably are also learning in a second language. This suggests that it may be difficult to find candidates with the 'skills' required for successfully participating in and completing a learnership.

2.4.1.2 Institutional landscape: Capacity, relevance, infrastructure and funding

Another result of the apartheid state has been a racially segmented and highly stratified educational system. According to Kraak (2003b) this system reserved the best educational institutions for whites, while the African population had to learn within third-rate institutions (with poor quality curricula, pedagogy and infrastructure), which were mainly located in isolated, rural and poorly resourced neighbourhoods. Provider institutions and delivery systems, which the incoming state inherited, were thus fragmented and often dysfunctional. Standards of learning as well as certification processes throughout the system differed widely, and no nationally acknowledged and assured qualifications framework existed until the introduction of the NQF, which limited the transferability of skills between industrial sectors (Kraak, 2004a; Heitmann, 2000). The quality issue transferred to the actual delivery of training. In the past, no requirements for trainers and instructors had been laid down, meaning that every training institution applied its own standards and criteria for its qualifications. As a result, the new system faced an environment, in which a large number of instructors were not adequately qualified to deal with the complexities of the new system imposed on them (Heitmann, 2000). Furthermore, many institutions lacked the infrastructure, as they were undersupplied with the facilities essential for providing active practical learning, for example computer laboratories, workshops, libraries, etc. The previously noted merger process (refer to 2.3.2.3) put additional pressures on the FET sector in this regard and also in terms of the development of new curricula. As pointed out by Akoojee et al. (2007) this situation has partly improved, but colleges are still struggling with the merger process itself and the historically inherited tensions, concerning capacity (quantity and quality of staff), infrastructure and relevant curricula diversification. Moreover, there are still huge provincial disparities in funding, provision and quality. Staffing in the view of this account is one of the major constraints towards improved performance. This suggests that the learnership implementation is greatly influenced by the continuing challenges facing the FET college sector.

2.4.1.3 Emigration of skilled labour

Another key challenge to learnership implementation is the net loss of skilled professionals through emigration. This phenomenon may further threaten the skills base available for qualified training of learners. Particularly since the end of apartheid in 1994 (but also before that time), South Africa has experienced a consistent and significant loss of skilled labour. The trend towards skilled emigration, which is often referred to as the brain drain is largely attributed to 'white flight' and associated concerns about crime and violence, poor economic growth rates, the decline in public services and financially lucrative job opportunities overseas. But this is only part of the reason. Two other important factors may be the impact of globalisation and the relaxation of exchange controls since 1997 (Bailey, 2003). Whatever the reasons are, the net loss

of skills in the period 1989-1997 was high and estimated at 233 609 emigrants, of whom 41 496 were professionals (Kraak, 2004c, p. 60). Figures that were calculated on collected data from five major recipient countries, were approximately three times higher than the official figures declared and registered by the South African Statistics during the same period, which indicated only 82 811 emigrants and 12 949 professional emigrants (Bailey, 2003, p. 238; DoL, 2001c, p. 30). The reason for this significant undercount by official statistics was mainly due to the fact that recorded data only referred to self-declared emigrants. People who initially left the country for temporary reasons (e.g. travel, study, temporary work), and who then decide to stay abroad permanently, were not captured by the system. Furthermore not everyone was willing to disclose the fact that he/she was emigrating (DoL, 2001c). Official data can thus only be regarded as an indication of a migration trend and it should be borne in mind, that the absolute numbers may be an undercount. While the actual numbers might be misleading, Bailey (2003) argues, that the system captures the trends and relative proportions across the occupational groups quite accurately. The figures presented by him (p. 246) for occupational groups show that besides the legislative, executive and managerial field (29%), the majority of skills losses are in the fields of education and humanities (32%) followed by engineering, architecture and related occupations (16%). Latest figures released by Statistics South Africa in 2003 (STATS SA, 2003) reveal the same trend and also indicate that there was an additional increase of 90% of emigrants from 1999 to 2003 (viz 8487 emigrants to 16 165 emigrants). The trend relating to skilled emigration thus seems unchanged and according to the occupational data particularly affects the qualified training expertise available in the building and civil as well as the educational field. This suggests that the institutional and experiential training in learnerships, which is already affected by a low available base of skilled trainers, may be even further weakened through emigration over time.

2.4.1.4 Enterprise training: Attitudes and practices

The culture of enterprise training in South Africa has a poor history. This could stem from the restrictions of the apartheid government on the training of black workers, but also from a generally weak employer interest in continuous, lifelong learning. Quality training and education under apartheid was not only reserved for whites, but also predominantly reserved for the young. Once people had obtained their initial post-school education and training (e.g. as artisans, professionals, generalists, etc.), they tended to remain within the same profession, or with the same employer without obtaining further qualification levels (DoL, 2001e). The practice of minimal continuous training and education was reflected in (1) the fairly consistent numbers of formal workers in the skills levels below NQF 1 since 1994 (from 38% of the formally employed in 1994 to 39% in 1999) and (2) in the age distribution of enrolments in FET/HET colleges. In 1998 the majority of learners enrolled in technical colleges were 15-29 years (92%). Thus, only 8% of the enrolled learners were in the age group above 30 as compared to Australia, which reported an enrolment of 49% in this age group (DoL, 2001c, p. 26). The poor training record can further be seen from the actual training investment of enterprises. As reported by a base-line study of industrial training in 2000 training investment in some sectors was only between 0.3% and 0.7% of the payroll (DoL, 2001e, p. 29). Training by employers was likely to benefit 20-30% of the formal workforce, but the quality and depth of this training was questionable.

It concentrated mostly on informal part-time, in-house training sessions, of a short duration and with a narrow skills focus. The majority addressed basic skills (e.g. health & safety, computer skills, etc.), which served specific employer needs, the immediate use at the workplace and was not externally accredited (DoL, 2001c; Kraak, 2003a).

Moreover, enterprise training continuously declined from a peak of 320070 employees trained in 1990, to 110278 in 1996 and a low of 61145 trained in 1998. Overall, there was a decline of enterprise training from 1986 to 1998 (- 78.8%) (Kraak, 2003a, p. 82). Parallel to this was the previously noted 70.91% decline in newly indentured apprentices. These existing trends, prior to the introduction of learnership training, provided a very shaky basis on which to build. South Africa did not have a tradition in which employers served as an established training partner for formal work-based training (except in the case of the apprenticeship system). There were few incentives for companies to train and many individuals in this environment held the view that skilled staff is more easily poached externally from others than internally trained (Kraak, 2003a). This reflected an enterprise training culture, that was unconvinced of the merits of participating in continuous education and training and was at its lowest point when the new skills development framework was introduced (Development Policy Research Unit (DPRU), 2007; Kraak, 2003a; Kruss, 2004). A voluntary financing system as practised in other countries, e.g. Germany, Japan and Switzerland (Lipsmeier, Georg & Idler, 2003) would certainly not have provided a viable solution in such an environment. The Skills Development Levies Act in 1999 thus sought to generally enhance employer participation in training by creating a compulsory national levy system applicable to all enterprises (DPRU, 2007). Through this measure it attempted to enforce a more training-prone environment, in which enterprises would subsequently become convinced over time.

Nevertheless, the culturally inherited attitudes and practices of enterprises towards training suggests that it may still be difficult to obtain the necessary motivation and 'buy-in' of companies as workplace training providers, which is an indispensable prerequisite for the successful implementation of learnerships. This assumption is confirmed by the accounts of Kruss (2004) as well as Akoojee et al. (2005). Both identify the hostile labour market with its low employer take-up on learnerships (as well as the placement of graduates from learnership programmes) as one of the greatest constraints for the new VET system.

2.4.1.5 Vocational education and training: National perception and recognition

The attitudinal challenges continue in the perception of vocational education and training. As the notion of VET in South Africa historically has only been linked only to a narrow range of sectors and low skills levels of employment, it has been perceived by many as being of a 'lower status' than that of general education (Carton & King, 2004; Kruss 2004). This prejudice was enhanced by the relatively low placement rates attained after the de-racialisation process as noted earlier in this chapter (refer to 2.3.1). Vocational education and training did not provide a viable and sustainable career prospect. Accordingly, parents and learners were largely prejudiced against VET and made their subject choices and enrolment decisions

towards the other educational institutions. The result of this national prejudice was reflected in low enrolment rates for college-based education and significantly higher enrolment rates for technicons and universities, which created the 'inverted triangle' institutional landscape, unique to South Africa (Kraak, 2003a). As demonstrated by the analysis of the DoL (2001c) the inverted triangle illustrates one of the major challenges to skills development, since the enrolment rates compared to international standards are skewed in the wrong direction. The largest intake of post-school enrolments should be in the FET college sector, the second largest in the technikon sector, and the smallest in the traditional university sector. But the low level of recognition for VET was not only reflected in the enrolment choices of the learners themselves, but also in the government's approach in terms of subsidisation. According to the NTBs provisional 'Discussion Document' of 1994 the state subsidy for general education amounted to 3.1 billion Rand, as opposed to 0.3 billion Rand for technical and vocational education and training (Heitmann, 2000, p. 106).

The generally negative perception and low recognition of VET by its potential users and the state may suggest that despite the availability of the new learnership route its actual utilisation may prove difficult in the given context. This is supported by Kgobe (1997) who challenges the general assumption of the new system, that the mere availability of an alternative learning route necessarily implies the reality that people will actually use it. In her opinion there are a lot of other reasons (she does not detail them any further) that influence people's decisions and the new approach has to address this reality. Wolhuter (2003) further underlines this perception as he stresses the importance of a culturally evolved mindset that is open to vocational education and training and convinced of its value. His opinion is that this is one of the major pre-conditions for the successful implementation of the new dual system. With the attitude that has historically under-valued VET, learnerships may face the difficulty of obtaining the necessary buy-in from providers and also that of attracting and recruiting sufficient numbers of suitable learners (i.e. motivated and educated learners).

2.4.1.6 Poverty-related diseases: HIV/AIDS

The education and training related challenges that have been illustrated above are further compounded by the impact of poverty-related diseases, such as HIV/AIDS, cholera, tuberculosis, syphilis, etc. In particular, illnesses and deaths caused by HIV/AIDS severely affect the supply, work performance and training of skilled labour in South Africa. As the DoL projected in 2001 (DoL, 2001e) Aids in combination with other poverty-related diseases would probably represent the most serious exogenous threat to securing a sufficiently skilled and well-trained workforce for the domestic economy. This projection has proved right over time as the disease according to McGrath and Akoojee (2007) can still be viewed as one of the largest constraints on South Africa's future development. The magnitude of the problem for training and skills development is demonstrated in the following numbers from 2006 (Dorrington, Johnson, Bradshaw & Daniel, 2006, p. ii):

- 11% percent of the population (5.4 million) is infected and 11% of these (around 600.000) are sick with Aids.
- Of the 5.4 million infected, 1.3 million are under the age of 25. The highest prevalence is amongst young women between the ages of 15-24, which particularly drives the risk of new infections among newborns caused by mother-to-child transmissions.
- There will be 737 000 deaths, nearly half of which (47%) are due to HIV/Aids, rising to nearly 71% of deaths in the 15-49 year age group.

The age distribution of the disease and related deaths clearly highlight how much the economically active labour force and thus all skills development measures are to be affected. While it is generally recognised that all skills levels will be negatively impacted by the disease, greatest losses are projected among semi-skilled and unskilled labour (Erasmus et al., 2007; Vass, 2003, 2007). The construction sector is thus particularly affected as it employs a large number of this vulnerable workforce. Estimates in 2005 indicated that as many as 22% of the sector's labour force may be infected (CETA, 2007a). This infection rate makes the industry the third hardest hit by HIV/Aids (cidb, 2004). Thus there is no doubt that learnerships have to deal not only with the effects of the disease on training, but also have to serve as a mechanism for educating around this important national issue.

2.4.2 Industry-specific challenges

There are some characteristic features of the construction industry that could possibly make it more difficult to implement learnerships than in other industries. The current study has to take these into account too. The major challenges for the implementation of learnerships that were gathered from various sources (for example CETA, 2005, 2007a; cidb, 2004; Goldman, 2003; Haupt, 2001; ILO, 2001) are outlined below.

2.4.2.1 Sector profile and structure

Undoubtedly, one of the major challenges is the complex profile and diverse structure of the sector itself. As articulated by the CETA (2007a) it is generally acknowledged that the construction sector is very large and incorporates diverse and complex structures. The sector consists of a large number of different players ranging from the government and its agencies, major construction companies, various business and professional service providers as well as materials suppliers to small contractors. These can be broadly categorised into three sub-sectors, namely construction (building and civils), materials manufacturing and built environment professionals, but they remain largely fragmented with little coordination among them (CETA, 2007a; Ntinga, 2002). As indicated by Ntinga (2002) this has partly been the reason for the government's establishment of the Construction Industry Development Board (cidb), whose major role is to serve as a co-ordinating mechanism for the sector and its further development. The multiplicity of sectoral-players with their diverse nature of their products, their various internal structures, policies and regulatory frameworks, governed by a huge number of different professional networks and membership associations,

e.g. Building Industry Association South Africa (BIFSA), South African Federation of Civil Engineering Contractors, Black Construction Council (BCC), etc. makes the sector very complex in terms of training. This complexity is even further enhanced by the fact that the various players do not only have different skills development needs and priorities but also have different training and professional development traditions (CETA, 2007a).

Due to the complexity of the sector definite figures on the number of businesses involved in the construction sector are difficult to come by. While Ntinga (2002, p. 7) estimates 90 000 - 100 000 construction firms, CETA (2005, p.10) only estimates 35 000 enterprises. This great disparity may be explained by the fact that the CETA estimations are based on the submission of Workplace Skills Plans (WSP) data and data from the South African Revenue Service (SARS). Thus these data include only formal businesses registered with SARS, but not the large number of informal enterprises existing in the sector. This leads to another sectoral challenge, which is the dual nature of the construction industry as it straddles two economies. The first is the formal economy, which is characterised by a highly skilled workforce. The second, estimated to be 40 percent of the construction workforce, is the informal economy operating below NQF level 1 (CETA, 2007a, p. 8). The specific challenges related to this structure will be outlined under Section 2.4.2.2.

Furthermore, the sector is dominated by small, micro and medium enterprises (SMME). As indicated by the CETA (2007a) and Ntinga (2002) this sector comprises between 80 and 97 percent of the industry. Available definitions of the term SMME vary widely in the terms of capital and asset base, as well as capacity profile (TIPS, 2005; Ntinga, 2002). Since the term SMME in South Africa is generally used as a catch-all term for businesses that are distinct from the large scale (Ntinga, 2002), a clear definition is indispensable as is a practical distinction of the various sizes of businesses. One possible definition and method for classifying business size is provided by the National Small Business Act of 1996 (revised by the National Small Business Amendment Bill of March 2003 (RSA, 2003)). This bill classifies the different sizes according to total full-time equivalent of paid employees, total annual turnover and total gross asset value (fixed property excluded). Another possible definition is made by the South African Revenue Service (SARS) in the context of levy paying. This definition refers only to the numbers of employees and classifies the different sizes as follows (CETA, 2005, p. 11):

TABLE 2.3
SMME DEFINITION

Size or class	The total number of employed personnel
Large	> 150
Medium	50 – 150
Small/Micro	1 – 49

This is the definition generally used by the CETA to classify Workplace Skills Plan (WSP) submissions and is thus the most appropriate definition for the context of the current study.

The domination of small and particularly micro enterprises in the South African construction industry is consistent with international accounts according to which 90% of the construction industry workers worldwide work for firms employing less than ten people (CETA, 2007a, p. 5). This structure presents a particular challenge to the implementation of learnerships as acknowledged by the CETA and McGrath and Martins (2005). Although there seems to be a high level of commitment and a positive attitude towards training in the SMME sector, the actual engagement with the formal skills development system is very low. According to McGrath and Martins (2005, p. 42) referring to a study conducted in 2003 the most prevalent type of training in this sector seems to be informal on-the-job training conducted by the owner himself or other employees (71%), while the more formalised types of training, for example learnerships are the least common (6-9%). These low figures are not surprising as they agree with reports of an international trend for SMME training to be “relatively impervious” to formal government training schemes (McGrath & Martins, 2005, p. 42). This can easily be explained by the small size of the enterprises, typically having limited organisational and technical capacity and a shortage of resources, especially regarding money and time. Most of these companies cannot afford to have the employee in training for relatively long periods without filling the void. They do not have sufficient time to administer and supervise the training, and furthermore lack the financial resources to afford such training (CETA, 2005, ILO, 2001). In addition, most of the companies do specialised work, which means that the learner is not exposed to the full range of work-experience required for the trade. Thus, the SMME sector’s demand is primarily for short, low-cost and practical courses that focus on readily usable skills (ILO, 2001). But these are not the only reasons. McGrath and Martins (2005, p. 43) stress categorically, that the slow employer take up is also compounded by a high lack of awareness of learnership processes such as e.g. the levy-claiming process (44%) and the support and services offered by the SETA (25% could not comment at all). Furthermore, 11% of the businesses did not consider the process of claiming back the levy ‘worth the effort financially’ and the same percentage considered it to be ‘too complicated’ (p. 43). The levy system, which was especially introduced to serve the financial training needs of smaller enterprises, thus does not seem to be reaching this sector as it was intended to. This may bring into question the effectiveness of the financial incentives developed for the system.

The complexity and diversity of the construction industry as well as its structural dominance by enterprises from the SMME sector suggests that the learnership system may face difficulties in addressing the diverse skills and training needs of all its intended users. Moreover, it may need to develop further support and assistance for SMMEs in the application of the system.

2.4.2.2 The nature of the work and employment practices

Another challenge is the nature of the work and consequently the dominant employment practices in the sector. Apart from the materials manufacturing sector, the majority of the construction industry (especially building and civils) operates on the basis of contracts issued for specific projects. Those contracts are fixed-term, rather than continuous and bound to a specific location. Once a project is finished, the workforce can

either move to the next building site or the contractor must recruit new workers at each individual location. The necessity to recruit afresh has been particularly enforced by the latest South African government requirements, which make it compulsory to utilise large proportions of local labour (CETA, 2007a). This leads to a high mobility of the labour force between employers and poses a considerable barrier to continuous formal training in the industry (ILO, 2001; CETA, 2007a).

The workforce required for each project can vary dramatically as can the availability of projects to work on. Thus, construction work by its very nature is notoriously volatile, and moreover extremely sensitive to the general economic strength (CETA, 2005, ILO 2001). The volatile and cyclical nature of the construction industry presents a huge challenge to learnership implementation. As indicated by cidb (2004) many companies do not have the certainty of workflow to commit to the long-term contractual obligations involved in learnerships. Because most projects run for a period shorter than a full learnership, companies are cautious about signing agreements (CETA, 2005; Goldmann, 2003). Furthermore, the cyclical pattern of work without consistent workflows supports the notion that nobody wants to train in a recession and nobody has the time to train in a boom (ILO, 2001).

The above factors affect the employment practices of the sector. As the nature of the work itself requires very 'flexible' work arrangements, employment in the South African construction industry has traditionally been short-term and precarious, with a very low availability of permanent jobs (CETA, 2005; Goldmann, 2003). This situation of short-term work arrangements has been further compounded in recent years by the intense competition between construction firms leading to lower profit margins and a downward pressure on contract prices. The tendency to award tenders on the principle of lowest price rather than best quality has led to the increased practice of labour-only-subcontracting (CETA, 2007a; cidb, 2004; Ntinga, 2002). This form of subcontracting, which is characterised by the performance of narrowly defined tasks without requiring a great deal of skills, has led to a further rise in casual workers (i.e. casualisation) and informal employment (Goldmann, 2003). According to CETA (2005, p. 13) formal employment has dropped from 350000 workers in 2002 to about 296 000 in 2003, but the sector overall is estimated to employ 600 000 workers. This is clear evidence of the increase in employment of casual labour and the shift towards informal employment (cidb, 2004).

Two immediate challenges for learnership implementation arise from this development. The first is that an environment with increasingly temporary and casual employment does not bode well for learnerships as these by definition have a long-term orientation (duration of a minimum of one year) and require formal contractual arrangements. The duration of the training may thus be a concern. The second is that the general need and incentive for upgrading of labour skills may not be perceived in this context. Recent developments (sub-contracting and casual labour) have decreased the employer's responsibility for skills development. Furthermore, the labour-only-subcontracting practice requires relatively low skills profiles and skilled quality work is not yet adequately rewarded by the market, whose main concern is the lowest price.

Another challenge is the labour-intensive nature of the work, which requires the employment of a large amount of relatively elementary skills (cidb, 2004; Goldmann, 2003). Employment in the South African construction industry has been characterised by a fairly small core of highly skilled staff (mainly white), who supervised a large workforce of semi-skilled and unskilled labour (generally African). As CETA (2005, p. 14) states about 40 percent of the workforce is made up of general manual labour (who are unqualified or partly qualified). African employees fill almost 90 percent of the elementary occupations. Thus the sector employs the fourth highest number of people having no formal education (cidb, 2004), which challenges the implementation of learnerships even further as this industry is particularly affected by the numeracy, literacy and language related problems discussed in Section 2.4.1.1. As a result, according to the sector summary of the DoL (2001f) the contractors see a definite need for ABET prior to any further development and this challenge continues as the current SSP of the CETA (2007a) identifies ABET as one of the strategic objectives for the next period.

The nature of construction work and consequently its employment practices may themselves be considerable barriers to the provision of formal training on a continuous basis in the sector. The enterprise attitudes towards skills development described under Section 2.4.1.2 may be particularly true for this sector as the environment currently provides little incentive to train workers in the long-term. Furthermore, implementation may be challenged by the low educational attainment level of its existing workforce and further, of new entrants to the industry.

2.4.2.3 Training capacity and competence

Training capacity and competence in the sector provides an additional challenge. As the construction sector in South Africa has experienced a serious decline ongoing since the mid 1970s (which only came to an end in 2000) the newly introduced learnership system found a very low capacity base on which to build. The steady decline over almost 25 years did not only halve the sectors employment and its contribution to the gross domestic product (GDP) from its peak over 5.7% in the 1970s to 2.8% in 2001 (Ntinga, 2002), but also affected the skills training provided in the sector. The low level of training during these years has led to an ageing skills base available to the industry. As reported by cidb (2004, p. 31) the employment profile of the industry demonstrates that 57% of the workforce is over 40 years, 27% is aged between 30-39 years and only 13% are below 30. The actual decline in training and numbers of new learners enrolling in industry colleges was so severe, that it led to the closing down of the BIFSA colleges in the 1990s (cidb, 2004). This closure did not only leave the industry stranded without its main training provider, but also produced a loss in institutional training capacity and competence available to the new system. Furthermore, apart from the apprenticeship system, which only applied to some specialised contractors, there was no formal training practice across the industry. Most training was in-house and on-the-job conducted by enterprise staff themselves (DoL, 2001f). As a result there was little competence in the industry for dealing with long-term formal training prior to the learnership.

2.4.2.4 Image of the sector

The factors discussed above, especially regarding employment prospects and the lack of opportunities for training and skills development have led to a very low level of attractiveness of the sector as a career choice. This low level is further supported by the poor image of construction work in general. Construction work according to ILO (2001) is generally considered as highly demanding, dirty and dangerous work. Apart from placing strong physical demands on workers and having to be performed outside (in continually changing locations), it is also a high-risk activity in terms of health and safety. Consequently, construction work is regarded almost everywhere as a 'low status' job with little incentives and insecure employment prospects. Many people work in construction out of necessity and not out of choice (ILO, 2001). This generally poor image discourages young learners to work in construction. As confirmed by a study in the Western Cape by Haupt (2001, p. 1), only 4% of the monitored school-leavers reported, that they considered a career in construction or building. This supports CETA data indicating that the number of workers entering the sector under 30 years is declining (CETA, 2005). Accordingly, the industry faces difficulties in attracting learnership entrants for the industry.

It is thus true to say that the specific features of the construction industry provide a particularly challenging environment for the implementation of learnerships. This statement, however, also holds internationally as the UK and German construction industries face similar challenges (Scott & Cockrill, 1998).

2.5 Formulated critique on the system

Considering the aforementioned challenges, there have been various accounts formulating critique on the system. This criticism has been both fundamental as well as concerned with issues of practical implementation. Some of the major critiques expressed, will be discussed in some detail. The intention of this section is not to cover the entire field of arguments and objections surrounding the NQF approach (political, philosophical, epistemological) nor its applied mechanisms (see Jansen, 1998), but rather to highlight those that appear important in the context of learnerships.

2.5.1 The dual challenge of the NQF

One of the most fundamental criticisms of the reforms is the 'dual challenge' envisaged by the NQF system. The aim of the dual challenge is to ensure both globally competitive learning and the inclusion and progression of previously disadvantaged learners (who consequently have a lower education) at the same time, critics argue that the envisaged objectives of the NQF may be too inclusive, and thus too challenging. The focus on these competing discourses sees them driving the NQF in two different directions and the tension between the two objectives appears to be irreconcilable (Allais, 2003). As Carton and King (2004, p. 9) put it: "This dual challenge would be a tall order for any society. It is doubly so, when the revolutions have

to encompass a curriculum for competitiveness and a curriculum of national inclusion". Heitmann (2000, p. 103) describes the generally accepted compromise, that has to be achieved in this context, as a challenge that "... may appear almost as impossible as squaring the circle". Yet, he adds that it can be achieved with the joint involvement and consensus amongst all stakeholders. Comparable development processes, for example France since 1971, have demonstrated that it takes at least ten years to reach such a common interest. To achieve it, requires an empowerment process that develops a culture of training in the minds of all stakeholders, despite their genuinely conflicting primary interests for example: wage and work conditions (trade unions); productivity increases (employers); administrative rules (government) (Carton & King, 2004).

2.5.2 The mechanisms for integration

The mechanisms selected to cope with this dual challenge have also been criticised, most notably the outcomes-based approach and the practical implementation of the recognition of prior and experiential learning.

The outcomes-based approach: Outcomes-based education and training in South Africa is being implemented by the formulation of nationally designed standards, the so-called unit standards. This national standards setting process with its underlying logic of unit standards is particularly criticised as it implies the internationally recognised danger of narrow, atomised standards (simply translated e.g. into modules or sections of learning materials), which are no longer located in holistic qualifications. Furthermore the outcomes-based process requires that learning outcomes (knowledge, skills, attitudes and values) be defined in advance on a national level, which underlies the arguable and much-criticised assumption that everything valuable in education and training can and must be defined up front. There is further criticism in this context. Those responsible for quality assurance in the system are concerned with the fact that the standards developed should conform to official requirements and that delivery is conducted according to these standards. However, those actually knowing their field (subject specialists) are given little responsibility in the process of making changes to the qualifications (Allais, 2003). The danger, as critics point out, is that the content of qualifications may become outdated and not be relevant any longer.

Another cause for concern is that the relationship between the specified outcomes and the actual curriculum content has been neglected (Jansen, 1998). The outcomes-based approach focuses on outcomes and remains largely silent on the content of the curriculum and thus the critical modes of delivery leading towards these outcomes. The question being asked is how this approach will succeed in maintaining standards and quality, in a reality where a multitude of training institutions (private and public), employer groups and organisations, in many different, contexts deliver education and training (Kgobe, 1997; Jansen, 1998). Heitmann summarises this criticism in a brochure that specifically addresses curriculum development (de Jager & Hüster, 2003, p. 5) as follows:

In general, OBET is not concerned about the modes and parameters of learning and teaching. Since the OBET focuses on the results rather than on the process of learning and teaching it offers teachers/instructors little assistance on how to achieve the specified results. However, the effectiveness and efficiency of training cannot be boosted simply by precisely defining and examining the outcomes, while leaving it to the learners and learning facilitators to determine what should be learnt, where, how and when the outcomes are achieved. The approach and method applied in facilitating learning has a direct impact on the results of the learning process. Allais (2003) shares this concern as she argues that with the introduction of outcomes-based education attention has been withdrawn from the general modes of teaching, the organisation of learning and the actual learning contents.

Another major quality issue concerned with OBET arises in the assessment process of competence and the outcomes. Kgobe (1997) refers to the critique expressed by Young (1996) that there are limits to the precision in which learning outcomes can be defined and equally a broad definition provides little assistance and quality assurance for the assessment process through the different providers. Quality and standards in this context will therefore depend on the professionalism and training of the individual assessors, who have to develop their own assessment guides for each assessment. It seems unlikely that the results of these assessments across the board will be consistent and reliable (Allais, 2003). In a context, where general education and vocational education and training are to be integrated this is regarded as even more challenging as these have different models of the contested concept of competence, each with their own assumptions, underlying beliefs and value systems (Kgobe, 1997; Jansen 1998). In addition, the implementing organisations are under the jurisdiction of two different departments, which further impedes the co-ordination of a coherent notion of competence and outcomes. The continuing difficulty of developing a coherent model for competence, the assessment process and consolidated assessment criteria is extensively discussed by Vorwerk (2005b).

It should be noted, that South Africa has been the only country apart from New Zealand that has attempted to implement the outcomes-based approach across the entire system of education and training. Most other countries have limited the model to vocational training (Departments of Education & Labour, 2007; Allais, 2003). In New Zealand this comprehensive approach could not be sustained over time (Allais, 2003).

Recognition of various modes of learning: The second challenge and concern that has been noted is also related to assessment, namely the practical implementation of assessment, recognition and accreditation of various modes of learning for the same qualification as well as the assessment of prior and experiential learning. While this is a valuable concept in theory for integration, it has been found to be seriously challenging in practice, as it has to find valid and reliable systems of recognising experiential skills and competencies, which may not easily fall under the common sense of knowledge (Kgobe, 1997). This has proved difficult in other nations, for example the United States, and is considered even more difficult in an education and training environment that has historically been divided, and that has valued school-based education more highly than work-based, i.e. vocational education and training (refer to 2.4.1.5).

2.5.3 Linkage to the world of work

All of the above leads to another fundamental problem raised in the context of the NQF: The fact, that while it attempts to pursue integration of education and training it does not address in any way the linkage between education and training and the world of work (i.e. the world of occupation). The linkage is merely seen in the provision of skills through education and training, most probably through mere vocationalisation of education and training (Kgobe, 1997). This problem corroborated by the analysis of Vorwerk (2005a) as he argues that the system itself does not provide an adequate systemic link between the world of work and the NQF. He goes on to say that the NQF in its original conceptualisation and further in its practical implementation is increasingly occupation unfriendly since it does not provide for occupational qualifications as they are required in the industry, for example a baker, a butcher, a candlestick maker, but only for qualifications in the definition of the NQF, i.e. certificate, diploma, degree. These qualifications however do not necessarily include an occupational award (referred to in an occupational title) as it is required by the labour market. Furthermore, professional bodies and specialised sector experts are marginalised or totally excluded on the ETQA bodies, which leads to qualifications that do not adequately address industry needs. In his overall conclusion the NQF accordingly does not respond well to the needs of the labour market at all (Vorwerk, 2005a).

2.5.4 Practical implementation: Lack of content and methods

One of the more practical criticisms of the reform and its legislative framework is, that it provided for a broad integrative vision, yet lacked 'real teeth' or 'meat' (Phillips as cited in Bischoff & Govender, 2004). This meant that while the regulations spelled out the general approach, the models, methodologies and methods to translate this into practice were not supplied (Vorwerk, 2005a). Most importantly in this context, some key elements of the new policy i.e. the NQF with the SAQA to implement it, were not worked out sufficiently and were only agreed upon in principle, partly as a result of the compromises reached in the NTSI process described under Section 2.3.2.1 (Badroodien & McGrath, 2005). The NQF regulations for example spelled out the approach (the outcomes, integration, assessable performance, critical outcomes, etc) and hinted at a methodology for integrated assessment, but they did not specify the method to achieve the criteria set out by the regulations (Vorwerk, 2005a). The lack of properly defined mechanisms for SAQA can be seen from the descriptions of Heitmann (2000, p. 112) who states, that four years after the passing of the SAQA Act, the SAQA itself as an institution was still in the process of being formed. Moreover, as highlighted by Badroodien & McGrath (2005), the funding needs for the SAQA were not conclusively addressed by the state, and it could only cover its cost by additional external funding, most notably from the European Community (EC). The legal framework further did not provide elaborate guidance for the actual working mechanisms of one of the key implementation agencies for learnerships (the SETAs), providing only an unrealistic timeframe for its establishment. The largely missing implementation toolkit, thus presented a serious challenge to the newly established institutions (i.e. SAQA, SETAs), the education, training and development community as well as its users (i.e. employers, participants, learners, etc.) to develop a

coherent system (Vorwerk, 2005a). A challenge, that was still present in 2004 is described by Bischoff and Govender (2004, p. 71) as follows: "Training providers are uncertain of their place, unable to clearly determine their role, and unskilled to manage and improve skills in the current dynamic workplace". According to this account the process for accrediting training providers is complex, does not have a clear direction and is open to abuse and corruption.

2.5.5 Capacity issues: Complexity and bureaucratisation of reform

Following from this another major criticism that has been levelled is the sheer complexity of the reform, which consequently presented serious capacity challenges on the entire South African system. Not only did the entire education and training system have to come to terms with a newly enforced legislation (and thereby new structures and institutions), but also with an entirely reframed approach to learning. While in the old education system only the curriculum content, the input from the teachers and the learning materials mattered (input-/ knowledge-based), the focus now suddenly shifted to learner participation and outcomes (outcomes-based). The teacher/instructor was now expected to facilitate and mediate the learning experience in a cooperative way, with the learner being placed at the centre of the learning process (Allais, 2003; Jansen, 1998). The understanding of the concept of OBET and outcomes in this context is considered to be extraordinarily complex (Jansen, 1998, p. 322). It requires not only the understanding of at least 12 different underlying terms (e.g. unit standards, learning programmes, curriculum, assessment criteria, equivalence, etc.) and their relationship to the newly enforced institutions e.g. (SAQA, NSBs, SGBs, ETQAs), but also the ability to keep track of the changes in meaning and priorities afforded to these terms over time. As Jansen (1998, p. 328) stressed: "An entire re-engineering of the education system is required to support the innovation".

Increased administrative structures and tasks to manage the envisaged innovation through, e.g. multiple, individual assessments against outcomes; development of new learning material; administering of appropriate forms of assessment and comprehensive records for keeping track of the assessments, etc. were further argued to enhance capacity constraints. Added to this, is the concern that the multitude of new structures, with their various requirements, cross-linkages and dependencies would also multiply the bureaucratic and administrative burdens placed on everyone involved in skills development. This would not only slow down the process of actually providing the vocational education and training, but would also lead to an increased expenditure of the training levy spent on administration (Heitmann, 2000). Critics especially from the employer perspective gave a clear warning that the management of vocational training and education may become over-regulated. This prediction was first confirmed by the review report of a Study Group commissioned by the Departments of Education and Labour on the implementation of the NQF in mid-2001 (published in April 2002), which for example identified time-consuming and costly processes for the generation and registering of qualifications and reflected on widespread stakeholder concerns about the complexity and bureaucracy as a general constraint to achieving the system's stated goals. Consequently, an argument has been put forward for a rearranging of the various structures and a more simplified

architectural approach (Akoojee et al., 2005; Allais, 2003). From the employer perspective this was further confirmed by the State of the Industry Report 2003 on training and human resources practices in South Africa (Rourke, 2003). The research report, which was based on a survey of 81 organisations from almost all South African industry sectors, reported that apart from the possibilities of fraud, negative comments about the new legislation and OBET, primarily centred on the bureaucratic processes. Examples of comments were (p. 18): “Creates an admin burden that is not always conducive to expanding the training function; processes slow and cumbersome; it is a very labour and paper intensive exercise; principles are sound, but application seems to be poor”. The negative attribute that was ranked number one (out of a list of nine possible attributes) regarding OBET was: ‘too bureaucratic’. In the same year the joint response of the Department of Education and Labour to the initial Study Groups review in 2002 ‘An interdependent National Qualifications Framework’, acknowledged the observed weaknesses and proposed a number of changes among them the establishment of new quality assurance councils beneath SAQA (DoE & DoL, 2003). A new Trades, Occupations and Profession (TOP) qualifications council would oversee vocational qualifications, whilst for the VET system Umalusi would continue to be responsible in terms of academic and general vocational programmes (Akoojee et al., 2005; DoE & DoL, 2003). The long delays with regarding this joint response as well as the apparent tensions in the document demonstrate that the different educational logics of the two departments are an additional challenge to the development of a common vision for an integrative NQF. The negotiations between the two departments concerning the NQF and its underlying structures (as can be seen from the 2007 Joint Policy Statement (DoE & DoL, 2007)) have continued up to now and are still in the process of becoming new policy. In the new proposed framework the original objectives of the NQF are retained, but changes in its organisational structures are envisaged in order to improve the efficiency and efficacy of implementation. One important change with regards to learnerships is the recommended establishment of an Occupational Qualifications Framework (OQF) in the NQF. The new OQF will operate with an Organising Framework of Occupations (OFO), which will classify occupational qualifications (i.e. occupational awards and skills certificates) and a new Quality Council for Trades and Occupations (QCTO). This council will oversee and quality-assure the delivery and assessment for trades and occupational competence. In order to avoid the problem referred to by Vorwerk (2005a) above, experts and knowledgeable individuals from the respective occupations/sectors will be appropriately represented on the new QCTO. The design and development of occupational qualifications, curricula and assessment guidelines will be driven by these experts termed Communities of Expert Practice (CEP) (DoE & DoL, 2007; Vorwerk, 2007b).

Taking into account the severity of the above discussed concerns relating to complexity and bureaucratisation, the over-arching criticism expressed concerned the issue of capacity. Throughout the reform process there was an emphasis on policy formulation. The complexity of its implementation (with its various bureaucratic and administrative burdens and, consequently, the capacity required) was vastly under-emphasised (Badroodien & McGrath, 2005; DPRU, 2007). Badroodien and McGrath (2005) identify this as one of the key lessons of the implementation stage. The problem of the inadequate attention paid to capacity by the government was particularly criticised in the context of the newly established SETAs, of

which many according to Kraak (2003b) were already demonstrating serious problems of incapacity and mismanagement a short time after their inception. This was not only regarded as a problem of the SETAs, but of all stakeholders involved in the system (Akoojee et al., 2005).

2.5.6 Speed of reform and international involvement

As capacity across the system was weak, the actual implementation could only be facilitated timeously through major involvement of international expertise. This can be seen from the descriptions of the implementation stage (refer to Section 2.3.2.3) as well as the accounts of Badroodien and McGrath (2005) and Carton and King (2004). Both these accounts raise the question of whether the 'speeding up' of the implementation through the involvement of international consultants may have undermined an important delay (through reliance on South African expertise) and therefore prevented the emergence of a real domestic consensus on important elements of the new skills development system. The non-negotiable pace of the process has been particularly criticised in the process of bringing on board the central players to the actual transformation, i.e. teachers, educators, training practitioners, instructors and the education and training institutions as a whole (Jansen, 1998; Kgobe, 1997). The insistence on a speedy reform may have thus undermined a real understanding of the proposed changes. Furthermore the continuous involvement of international consultant capacity is feared to have substituted rather than developed domestic capacity. This is considered to be particularly relevant in the case of the DoL, which 10 years after the reform process may not have developed the capacity to implement policies on its own. This may also be true for the other national authorities coordinating skills development, i.e. the Department of Education and the SETAs (Badroodien & McGrath, 2006).

2.5.7 Ambitiousness of recontextualisation

The overall critique has been that the envisaged reform and certain elements of the new system may simply be too ambitious for the current South African context and especially its state of resources and capacity. Jansen (1998) in particular criticises this failure to take into account the resource status of South African education institutions and underlines his criticism with the clear statement that "anyone who seriously believes that such an innovation will be implemented with these original insights in mind has not spent enough time inside the average South African classroom" (p. 3). Similarly, Badroodien and McGrath (2005) believe that some of the attempts to borrow internationally and recontextualise may have been over-simplistic. The lessons learnt from the reform process were "more attuned to the first world/first economy portion of South Africa" (Badroodien & McGrath, 2006, p. 489), and thus certain elements of the new system did not consider adequately the needs of the less advanced portions of the formal economy (i.e. SMME) and most importantly the needs of the rural and informal economies. The concern of the over-ambitious recontextualisation is clearly expressed in an analysis by Wolhuter (2003) in the context of the learnership system. As he argues (p. 150), "... the population dynamics, the economy, the mobile employment market

and the low prestige accorded to vocational education bode ill for a dual system in South Africa". In his opinion the system, which has been mainly based on the principals of the long established and well-functioning German prototype, does not encounter the same favourable pre-conditions (demographic, economic, political, educational and cultural) as those that apply to its template model. The conditions, that are considered particularly favourable for the German model, are a very low population growth rate, a strong economy, a labour dispensation in which it is advantageous for employers to take in learners and lastly, a historically evolved culture wherein vocational education enjoys the same prestige as academic education, and is a recognised path towards higher education. These conditions are not to be found in the South African context.

Thus, he doubts that the attempt to import the dual system into South Africa will be possible without major difficulties. On the other hand though, he articulates the clear hope that the 'adapted' new elements of the South African system (for example, building the qualifications into the NQF, extending it to teacher training and the induction of new members of the academic profession, etc.) may be able to create a dual system-model that could be an example for other developing countries, and even for Germany itself.

Summing up the above criticisms it has to be said that the envisaged reform was highly complex and extremely ambitious. This applies to both the implementation mechanisms and also to the pace at which implementation was enforced. Nevertheless, whatever system was selected would have been confronted with the same capacity issues and challenges facing its implementation, particularly with the imperative of overcoming the legacy of the past in as short a time as possible. South Africa has decided which way it wants to go and therefore the pertinent question is how to implement the selected system efficiently and effectively under the given circumstances. From this perspective the current system has to be evaluated.

2.6 Evaluation theory

The voluminous literature available on evaluation covers a broad range of possible evaluation contexts. These contexts range from e.g. personnel evaluation, the evaluation of business/industrial training programmes, the evaluation of educational efforts to the assessment of developmental programmes or services in health, welfare, crime, etc. Evaluation has become a commonly used technique in virtually all spheres of activity in which issues of effectiveness are raised (Rossi, Lipsey & Freeman, 2004). In the different contexts widely varying applications of evaluation can be found, which all form important pillars of the evaluation field (Kellaghan, Stufflebeam & Wingate, 2003). Consequently, a large variety of definitions of the term itself, its main purposes and principles, possible evaluation models and applicable instruments exist in the various contexts. As the learnership system is a system that functions both as an industrial training programme as well as a skills development programme in the wider educational and social development context, the literature on training and educational evaluation as well as programme evaluation is considered particularly useful for the current study. It is not possible to provide a conclusive review of all

the literature. However, the following section will discuss a number of key concepts often referred to in evaluation literature in order to provide a sound framework for learnership evaluation.

2.6.1 Definitions of evaluation

At the simplest and broadest level, evaluation is defined as the process of determining and/or assessing something's merit or worth (Aspinwall et al., 1992; Hopkins, 2002; Scriven, 2003). However, for the purpose of this study a more exhaustive definition is required. As early as 1949, Tyler (as cited in Hopkins (2002, p. 3)) originally defined evaluation as "... the process of determining to what extent the educational objectives have been realised". This educational definition of evaluation is consistent with the definition made by Campbell (1998, p. 324) in the context of training course and programme evaluation: "The results of an evaluation are intended to enable decision-making about whether a course or programme accomplished, what it was designed and developed to accomplish". This defines an essential component of evaluation, which is concerned with goal achievement or "outcome measures" as stated by Goldstein (1986, p. 129). A comprehensive discussion of outcome-based evaluation is provided by Schalock (1995).

The definitions of evaluation that focus solely on outcomes, are criticised by Goldstein, as he argues that by relying only on outcome measures it becomes difficult to determine why certain criteria were achieved. In a more comprehensive definition he thus states, that "... evaluation is the systematic collection of descriptive and judgemental information necessary to make effective training decisions related to the selection, adoption, value, and modification of various instructional activities" (p. 141). This definition of evaluation focuses more on the processes ("process measures") leading towards the outcome. The importance of both outcome (impact) and process evaluation is further supported by Rossi et al. (2004) in the context of programme evaluation and by an early definition of Tracey (1968) formulated in the context of training and development systems. As Rossi et al. (2004) argue, any information about programme outcomes is incomplete and thus hypothetical, without having acquired sufficient knowledge of the programme activities that have produced the outcomes. Similarly, Tracey (1968) identifies evaluation as being critical for determining the value of training and development programmes and further for assessing the efficiency and effectiveness of the tasks performed for its achievement.

Looking at the above definitions it is evident, that a comprehensive definition of evaluation for the purpose of learnership evaluation must include the elements of both outcome and of process. Hence, a more comprehensive definition has to be provided. The first, which seems useful in the context of learnership evaluation, is provided by Patton (1986). In his so called utilisation-focused evaluation he defines evaluation as follows (p. 14): "Programme evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programmes for use by specific people to reduce uncertainties, improve effectiveness, and make decisions with regard to what those programmes are doing and affecting". The primary focus in utilization-focused evaluation is on *intended use* by *intended users*. This central premise of 'utility' was initially controversial when it was introduced by Patton in 1978, but since then has become a

commonly-accepted evaluation philosophy (Patton, 2003). Patton's focus on the utilisation of evaluation seems particularly important in the light of the primary objective of this research, i.e. to contribute to further development of the learnership system in practice. The second comprehensive definition is provided by Stufflebeam (2003a) as underlying his CIPP model of evaluation. Corresponding to the letters in his acronym CIPP, the model's core concepts are **C**ontext, **I**nput, **P**rocess and **P**roduct evaluation (refer to 2.6.5.3 for a detailed description of the model). The model applies to a wide range of contexts and can guide the evaluation of projects, personnel, products, institutions, and most importantly for this study - the evaluation of programmes and systems (Stufflebeam, 2007) The formal definition of evaluation underlying this model is the following (Stufflebeam, 2003a, p. 34):

"Evaluation is the process of delineating, obtaining, providing and applying descriptive and judgemental information about the merit and worth of some object's goals, design, implementation and outcomes to guide improvement decisions, provide accountability reports, inform institutionalisation/dissemination decisions, and improve understanding of the involved phenomena". The most important focus of Stufflebeam's model is not to prove, but to improve. Three important elements emerge from the above review of definitions for establishing a definition for learnership evaluation:

- The systematic collection of descriptive and judgemental information on the system's components (e.g. context, input, process (activities) and outcome);
- Determining the system's effectiveness regarding the desired outcome (goal achievement);
- Making recommendations which can be utilised by the system's users for further improvement.

Accordingly, learnership evaluation is the systematic process of collecting descriptive and judgemental information on the system's components (e.g. context, input factors, process activities and actual outcomes) to determine whether the system has achieved its desired outcome. The main focus of learnership evaluation is on the utilisation of the evaluation by the system's users in order to improve the system's effectiveness.

2.6.2 Purposes and types of evaluation

All definitions of evaluation posit key purposes for evaluation. The components established by Patton's definition (2003, p. 224) include four interrelated purposes: (1) the systematic collection of information about (2) a broad range of topics (3) for use by specific people (4) for a variety of possible judgements and uses. More specifically Stufflebeam (2003a, p. 34) states the following four purposes for evaluation: (1) guiding decisions; (2) providing records for accountability; (3) informing decisions about installing and/or disseminating developed products, programmes and services; and (4) promoting understanding of the examined phenomena. The statements of evaluation purposes of both models remain rather broad as they are intended to apply to a wide range of contexts.

The two most important purposes of these models though as stated by it's founders are (1) intended use by intended users (utility) in Patton's model (Patton, 2003) and (2) to improve (not to prove) in Stufflebeam's model (Stufflebeam, 2003a). The particular stress on improvement as the most essential aim of evaluation is recognised by Cronbach (1967, p. 364) when he states: "The greatest service evaluation can perform is to identify aspects of the course where revision is desirable". A further more specific list of evaluation purposes is provided by Bramley (1991, p. 87). He states that evaluation serves the following purposes: Evaluation completes the cycle of training it is integral to the cycle and has the key role of quality control of the cycle by providing feedback on:

- the effectiveness of the methods being used (i.e. improving);
- the achievement of the outcomes of a programme by both learner and trainers (i.e. proving);
- the degree to which the needs originally identified (at both organisational and individual level) are met (i.e. proving).

Phillips (1997) establishes a list of ten evaluation purposes which broadly speaking are either to improve programme processes (i.e. improving) or to decide on the future of a programme by determining its worth (i.e. proving). In summary, three main purposes of evaluation are commonly stated in the evaluation literature (Bramley, 1991; Erasmus et al., 2007): proving, improving and learning. The two purposes that are considered most important in the context of learnership evaluation are proving and improving (Bramley, pp. 87-88; Erasmus et al., p. 220):

- Proving aims to establish conclusive evidence on the effects of training or developmental activities.
- Improving implies a focus on attempting to ensure that either current or future programmes and activities are better than they are at present.

The purpose of learning, which is regarded as minor in this context, recognises that evaluation cannot be separated from the process on which it concentrates, and thus is an integral part of the learning process.

Depending on the major purpose set for an evaluation process, different types of evaluation were identified by Michael Scriven in 1967. These are formative and summative evaluation. Put very simply, formative evaluation is concerned with improving the programme, while summative evaluation is concerned with the programme's value or worth. On a more elaborate level, formative evaluation, provides information about the strengths, weaknesses, advantages and disadvantages of a particular initiative or development, which enables the most effective steps to be identified (Aspinwall et al., 1992). Since it is also referred to as developmental evaluation, it provides this information while the programme is still being developed so that the obtained data can be used to make the actual programme more efficient and effective. Hence, its main purpose is improvement. In contrast, summative evaluation, which is also referred to as product evaluation, is usually applied at the end of an entire programme (or at least parts of the programme) in order to determine, whether the programme has 'worked' and achieved its set outcomes. Thus its main purpose is to

sum up evidence for judgement, i.e. proving (Bramley, 1991; Erasmus et al., 2007; Goldstein, 1986; Hopkins, 2002; Patrick, 1992; Rossi et al., 2004; van Dyk, Nel, Loedolff & Haasbroek, 2001).

As stated by House (2003) formative evaluation has been favoured by Lee Cronbach's (1963) approach to evaluation, while Michael Scriven (1967) has strongly argued for and developed summative evaluation as a correction to the bias of a pure formative approach. Although the distinction between formative and summative evaluation seems theoretically clear, in practice it often breaks down and the two types overlap (Hopkins, 2002). Hopkins view is supported by Stufflebeam (2003a) and Patton (2003), both of whom assert that their evaluation models can serve and include both types of evaluation at the same time.

A long list of additional types of evaluation can be established from the various literature sources on evaluation. Most of these tend to be named after the major purpose of evaluation, which they attempt to achieve. Examples of these are: goal-achievement evaluation, goal-free evaluation, outcome-based evaluation, process evaluation, consumer-oriented evaluation, responsive evaluation, deliberative democratic evaluation, etc. (Bramley, 1991; Hopkins, 2002; Kellaghan et al., 2003; Stake, 2003). For the purposes of the current study the distinction made above will be used (i.e. formative and summative evaluation), as it is the most common (Bramley, 1991; Erasmus et al., 2007; Goldstein, 1986; Hopkins, 2002; Kellaghan et al., 2003; Patrick, 1992; Rossi et al., 2004; van Dyk et al., 2001).

2.6.3 Standards and principles of evaluation

The increased professionalism in the field of evaluation particularly since the early 1980s, has given rise to standards and principles of practice in evaluation, which should be applied to every sound evaluation. The most prominently used standards are the Standards for Evaluation of Educational Programmes, Projects and Materials (1981) and The Programme Evaluation Standards (1994), developed by the American Joint Committee on Standards for Educational Evaluation. Both publications provide authoritative direction for assessing evaluation studies by providing 30 standards, which are grouped according to 4 essential attributes. These are (1) utility, (2) feasibility, (3) propriety, and (4) accuracy (Stufflebeam, 2003b, pp. 281-285):

Utility: The utility standards are intended to ensure that an evaluation will serve the information needs of intended users. Accordingly, it should be e.g. addressed to those persons and groups that are involved in or responsible for implementing the programme. These persons or groups are referred to by the standards as stakeholders. It should address the stakeholder's most important questions while at the same time obtaining the full range of information needed to assess the programme's merit and worth, etc.

Feasibility: The feasibility standards are intended to ensure that an evaluation will be realistic, prudent, diplomatic, and frugal. In other words this means e.g. that the evaluation measures employed should be

feasible in the programme's real world setting without interrupting the programme in operation. Moreover, it should be planned and conducted in anticipation of the different positions of the various interest groups and it should be cost-effective.

Propriety: The propriety standards are intended to ensure that an evaluation will be conducted legally, ethically, and with due regard to the welfare of those involved in the evaluation. More specifically this includes e.g. the fact that there should be a written agreement defining the obligations of the evaluator, that the evaluation should protect the involved parties' rights and dignity and that evaluation should be a complete and fair assessment of the programme's strengths and weaknesses, which is disclosed in a report.

Accuracy: The accuracy standards are intended to ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated. This means e.g. that it should clearly describe the programme's design, background and setting. The report should identify the evaluation's information sources, measurement methods and analytic procedures in order to present justified and valid conclusions, etc.

A comprehensive description of all 30 standards can be obtained from Stufflebeam (2003b). The standards developed by the American Joint Committee on Standards for Educational Evaluation are not the only standards and principles guiding the evaluation field. Other standards have been developed, such as the AEA (American Evaluation Association) Guiding Principles for Evaluators (Stufflebeam, 2003b) or the Guidelines of Good Practice in the United Kingdom (UK Evaluation Society, 2003). However, the standards and principles outlined above were the initial and thus most influential guidelines in the field of evaluation. This can be seen from the fact that the four essential attributes (utility, feasibility, propriety and accuracy) have guided the development of modified evaluation principles in other countries, e.g. Germany (German Evaluation Society, 2001), Switzerland (Swiss Evaluation Society, 2000) and most importantly Africa, i.e. the African Evaluation Association (AFREA, 2002). Hence, for the purpose of this study the four key attributes listed above will apply.

2.6.4 Effectiveness, efficiency and evaluation

As can be seen from the above, the terms effectiveness and efficiency (as well as their corresponding adjectives effective and efficient) are closely related to evaluation and are often referred to in evaluation literature. These are often to be found without an accompanying definition of what is actually meant by the terms. Since the two terms are key to the evaluation purpose of this study a brief consideration and definition will follow.

Effectiveness/effective: The simplest definition for the term as provided by the Oxford English Dictionary (effective, 2007) is: Effective is "producing a desired or intended result". Effectiveness describes the extent

of congruence or correlation between objectives and achievements (Madaus, Airasian & Kellaghan, 1980), thus "... effectiveness is the extent to which the desired output is achieved" (Scheerens, 1992, p. 3). Scheerens (1992) has established an extensive discussion on the term and its different meanings in various disciplines. This discussion leads him to the conclusion that effectiveness is clearly related to means-end relationships, meaning that effectiveness refers to the degree to which educational means or processes result in the attainment of educational goals. For educational contexts this leads him to "... a simple input-process-output systems model" (p. 11). In this model effectiveness can be referred to as the "... transition of inputs by means of processes into desired outputs/outcomes". Since the learnership is by definition a system it seems appropriate to adopt Scheerens' system model on effectiveness in the current study. This would mean, that if learnership inputs through the transition of learnership processes achieve the intended learnership outcomes, the system would be effective (and vice versa).

Efficiency/efficient: Efficient (as given by the Oxford English Dictionary) means "working productively at the minimum wasted effort or expense" (efficient, 2007). The more common definition in economic terms is (Nienaber, 2007, p. 76): "Efficiency refers to the principle of being productive (minimum input to achieve maximum output) in achieving the goals of the enterprise ('effectiveness')". In other words, efficiency is effectiveness with the additional requirement that this is achieved at the level of lowest possible effort, which in economic terms is usually related to the minimisation of cost (Madaus et al., 1980; Scheerens, 1992).

To summarise, in the context of learnership evaluation the following definitions for the two terms can be formulated: Learnership effectiveness is the extent to which the intended learnership outcome is achieved. In order to be efficient this outcome should be achieved through the transition of inputs by means of processes at the lowest possible effort. Clearly then, an evaluation of the efficiency and effectiveness of the learnership system must follow a systems thinking and must assess its three fundamental factors, namely outcome, processes and input.

2.6.5 Evaluation models

Evaluation designs that are used in various contexts and for various purposes of evaluation have tended to be formulated as models. These models "... reflect a particular or discrete evaluation method or an approach to a specific evaluation problem" (Hopkins, 1997, p. 18). Models attempt to specify or 'visualise' in a simplified way phenomena that cannot be easily or directly observed (Scheerens, 1992). There are a considerable and ever-growing number of models for evaluation available giving rise to the question: Which one would be best to apply? Given that, the majority of these models primarily focus on the evaluation of training programmes in a closed organisational setting (rather than in an open and complex multi-stakeholder context as is found in the learnership system), the use of a single model seems inadequate. Moreover, many of the models are theoretical rather than practical (Aspinwall et al., 1992), and thus provide limited orientation for establishing a specific learnership evaluation model. A more appropriate approach

would be to establish an individual framework for the context of the current study, which takes cognisance of the various recognised models. This approach is supported by various researchers, such as Hopkins (1997); Rossi et al. (2004) and particularly Goldstein (1986), who stresses the necessity of developing evaluation models creatively. Such models should in his opinion allow for the extraction of the largest amount of information in the given constraints of the evaluation environment. Phillips (1997) further highlights the notion, that there is no single best model and that in any evaluation effort the most important decision to be made is the selection of a model around which the evaluation will focus. Following this advice a number of the most prominent and relevant models will be reviewed in the following section. These models will guide the framework for learnership evaluation.

2.6.5.1 Kirkpatrick's Four-Level evaluation

Probably the still most widely acknowledged model for evaluating training programmes is the model of Donald L. Kirkpatrick (Kirkpatrick's Taxonomy) from the late 1950s and 1960s (Goldstein, 1986; Kirkpatrick, 1994; Levy, 2003; Phillips, 1997). This model, which is also referred to as 'Kirkpatrick's Four levels of Evaluation', identified four levels for the evaluation process. These are as follows: (1) The learner's reactions (reaction), (2) the change in learning by the learner (learning), (3) the behaviour change on the job (behaviour) and finally (4) the results to the organisation (results). The four levels of training present a sequence of levels for evaluation of which none should be bypassed (Kirkpatrick, 1994).

- **Reaction** measures what the participants thought of the programme. Kirkpatrick (p. 21) calls this level "a measure of customer satisfaction".
- **Learning** identifies the extent to which participants change attitudes, improve knowledge and/or increase skill.
- **Behaviour** is defined as the extent to which change in behaviour has occurred, thus the extent to which the knowledge and skills have translated into improved behaviour on the job.
- **Results** measure the final results that occurred because the participants attended the programme. As the model was developed for organisational training settings these results usually include classical economic results, such as increased production, decreased costs, increased sales, etc. However, these results are not the only results that can be measured at this level. Kirkpatrick explicitly states that this level has to measure the final objectives set for the training programme.

Phillip (1997) considers this outcomes-based model as a conceptual framework that assists in determining what kind of data should be collected in an evaluation. Thus, if one translates these four levels to learnership evaluation this means: (1) Measuring customer satisfaction. What is considered more appropriate in this context is to measure the satisfaction of all key stakeholders as these can all be regarded as customers of the learnership system. For the sake of consistency this subsequently will be referred to as 'learnership satisfaction'. (2) and (3) Measuring attitudes, skills and knowledge applied in the workplace, which subsequently will be referred to as 'applied competence'; and (4) measuring results. Measuring

results requires the definition of the desired outcome for the learnership, which will be provided under 'learnership outcome' (refer to Section 2.6.6.1). Kirkpatrick's model has had a significant impact on the development of subsequent models focussing on the outcome of training, particularly those concerned with cost-effectiveness.

2.6.5.2 Cost-effectiveness models

One well-known approach that has been developed from Kirkpatrick's Framework, is the Phillips Five-Level ROI Framework. This approach adds a fifth level, i.e. return on investment (ROI) to the previous four-levels of evaluation. At level 5 the monetary value of the results and costs of the programme are compared (Phillips, 1997). Various other models, such as the resource requirements model, the life-cycle model, benefits models, productivity models, etc. are concerned with the cost-effectiveness of training, and thus endeavour to find the most efficient training approach in terms of cost (Kearsley, 1982; van Dyk et al., 2001). Typical cost-effectiveness analyses include whether a programme produces sufficient benefits in relation to its cost and whether other systems or approaches could produce the same benefits at a lower cost (Rossi et al., 2004). Thus, what all these evaluation models require is first, an estimation of the programme related costs (and sometimes a monetary evaluation of the programme's benefits) and second, an alternative system for comparing costs and benefits. Even though ways have been established to come to terms with the monetary estimation of costs and benefits, these issues are still regarded as highly difficult and debatable, given the multiple variables that affect training outcomes. Given the specialised financial expertise and data required for such evaluations the application of cost-effectiveness models is considered most appropriate for "mature" and established programmes that have already undergone previous process and outcome evaluations (Levin & McEwan, 2003; Rossi et al., 2004). As Rossi et al. (2004, p. 61) state: "A program must be well implemented and produce the desired outcomes before questions of efficiency become relevant". Considering this statement and the aforementioned requirements (available data on costs or cost estimations as well as an alternative system for comparison) the approach does not seem appropriate for learnership evaluation in the current context. However, as there is a high level of concern about programme costs and benefits related to all public policies in general, this approach should ideally be considered at a later stage of learnership implementation and may become the focus of a future study.

2.6.5.3 Stufflebeam's CIPP model

Stufflebeam's CIPP model (refer to Section 2.6.1) is a thoroughly tested and commonly applied framework, which would seem more useful in the context of learnership evaluation. The model was originally developed for evaluating educational programmes but has developed and been refined to be applicable and adaptable to a wide range of settings and content (House, 2003; Stufflebeam, 2003a; 2007). Stufflebeam's model is considered to be one of the most practical models in evaluation theory. It is not only efficient, but effective, comprehensive and well balanced (Phillips, 1997). The core concepts of the model are four fields of evaluation: context, input, process and product evaluation.

- **Context evaluation** primarily concentrates on identifying the target group of the evaluated program and assessing their needs. It therefore defines the relevant environment, identifies needs and assets and diagnoses specific problems.
- **Input evaluation** provides information to assess the system capabilities by looking into its resources and how they can best be applied to meet the programme's goal. The information from input evaluation helps to determine the general program strategy for planning and procedural design, and also whether outside assistance is necessary.
- **Process evaluation** seeks to identify or predict defects in the work plan or its implementation and is thus concerned with assessing the actual programme activities. It provides feedback for managing the process, and for recording and judging the work effort.
- **Product evaluation** measures the actual outcomes of the programme (intended and unintended), which are then related to the goals (desired outcome) and the information obtained from the previous evaluations (context, input and process).

Since the model has been kept broad to be applicable to a variety of areas, the model does not provide direct tools that could be utilised for learnership evaluation. Yet it gives an indication of the four important areas to consider in an evaluation. Although the definition of product evaluation states that a sound evaluation according to this model should include information from all types of evaluation, Stufflebeam (2003a) maintains that the different types can be conducted either on their own or in some combination of the different types depending on the objective of the study. Since an in-depth analysis of the context of this learnership evaluation has been the primary concern of previous sections (particularly Sections 2.4 and 2.5.) the following discussions will focus on input, process and outcome. The terms outcome and output, which are sometimes differentiated (for example Bushnell, 1990) and sometimes not (Scheerens, 1992; Madaus et al., 1980), will be used interchangeably in this context. Stufflebeam's model has been categorised as a systems-based model (Eseryel, 2002), which leads us to the next important framework to be considered, i.e. the systems approach or systems evaluation.

2.6.5.4 Systems evaluation (Systems-based model)

The literature provides several accounts of the application of a systems approach to training, development and education, and thus the use of a systems thinking for evaluation (Al Khayyat & Elgamal, 1997; Babb & Meyer, 2005; Bushnell, 1990; Edney, 1972; Erasmus et al., 2007; Eseryel, 2002; Goldstein, 1986; Madaus et al., 1980; Patrick, 1992). The thinking underlying a systems approach is that firstly, any functioning entity can be viewed as a system and can be defined in terms of what it is attempting to achieve (outcome). Secondly, every system can be broken down into sub-systems and the interrelationships between them (Patrick, 1992; Erasmus & van Dyk, 1996). The two main constituting components of a system are considered inputs and outputs (Edney, 1972). In order to avoid 'blackbox phenomena' (i.e. no attention is paid to what is happening between inputs and outputs; the actual processing remains a 'black box') the focus on the two former types needs to be extended to processes (Madaus et al., 1980). Consequently, a

systems evaluation focuses on the whole system and the relationships between the interdependent components or subsystems (input, process, output) forming the system (Bramley, 1991). The simple systems model as described and visualised by Edney (1972) and Erasmus & van Dyk (1996) underlying this kind of evaluation is that inputs of the system are transformed through processes in the system into certain outputs or outcomes. The main value of the model is not its rigour but rather its simplicity and applicability. It brings a clear perspective and it enables the evaluator to view the entire system in such a way that it reduces the complexity inherent to training/educational phenomena and limits the focus to three key elements. Furthermore, it enables one to reflect on and describe causal relationships between the components, which might not have emerged in a pure consideration of the individual components of the system (Edney, 1972; Madaus et al., 1980, Patrick, 1992). There appear to be no accounts in the literature that provide a final list of elements that should be included as inputs, process and outputs in a systems evaluation and exactly how they are linked with each other, given the different contexts to which they apply (Eseryel, 2002). Nevertheless, apart from the elements that can be drawn from Kirkpatrick's model and Stufflebeam's CIPP model, systems evaluation seems to be the most appropriate framework for learnership evaluation for the following four reasons: (1) It is consistent with the systems thinking established under Section 2.6.4 (regarding effectiveness and efficiency); (2) It enables the researcher to view the entire learnership system and its components in a way that can serve the purposes of both proving (outcome) and improving (inputs and processes), and thus follows the definition of learnership evaluation made at the beginning of this section (refer to Section 2.6.1); (3) It provides a simple and guiding framework for the evaluation (which reduces the inherent complexity of the system), while at the same time offering enough room to adjust the evaluation to the specific needs of the users and the context of the evaluation; and (4) lastly, the framework complies with the quality dimensions identified for VET systems in general and more importantly with the critical elements identified by SAQA for the NQF quality assurance process in particular.

As suggested by Nielsen and Visser (1997, p. 14) in the context of vocational education the achievement of quality objectives should be tested on four dimensions: (1) Input: For example the qualifications and motivation of those involved and the resources provided by the training institutions, etc.; (2) Process: The aim, structure and content of the course, the planning and execution of teaching, physical framework, the teachers, etc. (3) Product: For example course completion, passed examinations, school leavers competences, etc. and (4) Effect: employment, productivity and competitiveness, etc. Nielsen and Vissers' product and effect dimensions coincide with the outcomes or outputs dimension given by Blom and Meyers' (2003, p. 41) framework of VET quality indicators. Here outcomes or outputs include employment outcomes, stakeholder satisfaction, achieving vocational and generic skills and completion, etc. The framework further establishes process indicators and stakeholder indicators that provide the input to the framework. SAQA (2000, p. 10) similarly establishes three critical dimensions in the quality process of the NQF: (1) The product or outcome: awards; achievement of standards or qualifications; accreditation; (2) The inputs: learning provision; programmes; learning and learner resources; life or experiential learning; and (3) The process: the quality of the learning and assessment interactions; the quality of the monitoring and auditing interactions. A detailed discussion on the different quality dimensions can be found in Farrell (2006). While

the different dimensions and quality elements identified in the cited literature do not directly match, they do coincide in the general dimensions considered: input, process and outcome. In light of above considerations and also the given comparable quality dimensions it is considered appropriate to ground and build the framework for learnership evaluation around the systems approach. In addition, the framework will also include an adapted context dimension as drawn from the CIPP model and will address the elements, established from Kirkpatrick's model, namely 'learnership satisfaction' and 'applied competence'.

2.6.6 Learnership evaluation framework

Having outlined the principles and thinking that underpin the systems evaluation approach selected for this research the four key elements of the selected learnership evaluation framework will be discussed. Firstly the dimension 'learnership context' will be addressed. Secondly, the systems dimensions will be reviewed, i.e. learnership outcome (refer to Section 2.6.6.2), learnership processes (refer to Section 2.6.6.3) and learnership input (refer to Section 2.6.6.4). In order to build the model starting with its intended outcome (i.e. goals and objectives), the review will move from the learnership outcome to learnership processes to learnership input. This approach of first identifying the programme's objectives and then investigating the further dimensions necessary for their achievement has been reported elsewhere (Edney, 1972; Madaus et al., 1980).

2.6.6.1 Learnership context

Context evaluation according to Stufflebeam (2007, p. 4) "... assesses needs, assets and problems in a defined environment". For this purpose it compiles and assesses background information on the programme's environment, such as resources, needs and problems as well as political dynamics. Thus, as stated by Stufflebeam (2003a), the methodology of context evaluation includes historical analysis and literature review as well as methods aimed at characterising and understanding current environmental circumstances. Since earlier sections have provided analysis of the context of this learnership evaluation, this section will not include any further discussion of the learnership context. Nevertheless, the section is established in order to underline the particular importance of an evaluation of the individual 'learnership context', with its specific needs, resources and problems for every sound learnership evaluation.

2.6.6.2 Learnership outcome

Outcome evaluation according to Patton (1986, p. 94) requires the "... specification of goals and objectives that are clear, specific and measurable". As provided by the overall requirements of qualifications through the SAQA the main objectives of learnerships (as linked to the outcomes for the learner) are to:

- "represent a planned combination of learning outcomes ... which is intended to provide qualifying learners with **applied competence** and a **basis for future learning** as well as

- ...add value to the qualifying learner in terms of enrichment of the person through the: ...i.e. enhancement of marketability and **employability; and opening up of access routes to additional education and training**".

(de Jager et al., 2002, p. 21; Meyer, 2002, p. 30)

Thus, an effective outcomes evaluation has to include the measurement of the following two learnership outcomes for the learner after completion of the learnership: (1) applied competence, (2) the employability or the possibility to proceed into further education.

Applied competence: Since in the absence of a clear definition misunderstandings and even disagreement may result (Hoffmann, 1999), it is important to define very clearly what is meant by applied competence in this context. A close reading of academic and practical Human Resource Management literature reveals the fact that a single and precise definition is difficult to find. The term 'competence' or 'competency' itself has been defined in so many different ways and from so many viewpoints, that it has ceased to have any precise meaning and accordingly no widely accepted definition (Loogma, 2003; Heitmann, 2004; Hoffmann, 1999; Mansfield, 2003; Meyer, 2002). According to Hoffmann's view (1999) it is therefore necessary to choose the meaning that best suits the context and the purpose of the study's approach. Applied competence in learnerships is defined according to Meyer (2002, p. 359) and Vorwerk (2003, p. 11) as "... the ability to put into practice in the relevant context the learning outcomes acquired in obtaining a qualification". The underlying competencies leading to this 'applied competence' can be defined as follows (Heitmann, 2004, pp. 2-3; Vorwerk, 2003, p. 13):

- **Technical competence** (foundational competence), which is the ability to handle complex technical tasks successfully by applying technical knowledge and skills in the profession; the demonstrated understanding of what someone or others are doing and why it is done.
- **Methodological competence** (practical competence), which is the ability to apply appropriate methods and strategies for handling a task or solving a problem related to the profession; the demonstrated ability to perform a set of tasks.
- **Interpersonal competence** (reflexive, social and individual competence) is the demonstrated ability to deal critically and analytically with oneself and one's own performance, i.e. to question one's own knowledge, abilities and skills, and to take appropriate action, such as acquiring further qualifications; the ability to deal with other people appropriately and to communicate successfully with them. The ability to learn from actions, to adapt to changes and unforeseen circumstances.

The three dimensions are interrelated, and thus must be achieved in connection with each other in order to demonstrate 'applied competence'.

With the two central learnership outcomes (i.e. applied competence and employability or the possibility to proceed into further education) defined, three levels of Kirkpatrick's Four-level Taxonomy are covered.

These are: Level 2 and 3, which is the measurement of 'applied competence' and level 4, which is the final intended outcome of learnerships for learners (i.e. employability or the possibility to proceed into further education). Consequently, level 1 'learnership satisfaction' has to be added in order to make the evaluation in terms of Kirkpatrick's outcome measures complete.

In summary, learnership outcome as defined using this approach includes the following outcomes:

- **Level 1 outcome:** *Learnership satisfaction* (subsequently referred to as Outcome 1)
- **Level 2 and 3 outcome:** *Applied competence* with its three defined underlying dimensions (subsequently referred to as Outcome 2)
- **Level 4 outcome:** *Employability or the possibility to proceed into further education* (subsequently referred to as Outcome 3)

Additional information: Completion and drop-out rates are also important in order to obtain a full picture of the actual outcome of the learnership system in an evaluation.

2.6.6.3 Learnership processes

The literature on process evaluation does not provide a final list of what exactly has to be evaluated, thus a broad definition can be stated as follows: "Process evaluation provides feedback to the individuals responsible for implementation. It is accomplished by monitoring potential sources for failure" (Phillips, 1997, p. 42) and "... the approach focuses on the internal dynamics and actual operations of a programme in an attempt to understand its strengths and weaknesses" (Patton, 1986, p. 139). The following list is established considering the general programme's working procedures (refer to Sections 2.2 and 2.3), the criticisms and specific challenges of learnership implementation (refer to Sections 2.4 and 2.5) and the processes identified by previous other studies and in discussions with the intended users (i.e. stakeholders) of the evaluation, in order to identify potential sources of failure.

1) Information on the learnership system: One of the first processes identified is the communication of the system, and thus the availability of information on the system. As revealed by McGrath and Paterson (2007) there is a consistent lack of awareness of and confusion about the system and its procedures (e.g. registration, the use of the WSP and, particularly the levy-grant procedures). This perception is supported by Kruss (2004) as she also identifies a poor understanding of the new skills development policy as one of the major constraints of learnerships. Consequently, a sound evaluation must review the process of information of the system. The importance of including this process particularly in the context of the construction industry was confirmed in discussion with the users.

2) Learner recruitment (availability of suitable candidates) and selection: The second process identified is learner recruitment and selection. This process has been identified by Davies and Farquharson (2004) as one of the key processes for effective learnership implementation (as learnt from the KwaZulu-Natal pilot projects). The importance of this process is further confirmed by Babb and Meyer (2005), who on the basis of case studies in various industries have also identified key elements of an effective learnership system among them, the selection of learners. Most importantly though, the South African challenges related to basic education (refer to Section 2.4.1.1) and the specific challenges of the construction industry related to its 'level of attractiveness' (refer to Section 2.4.2.4), additionally highlight the importance of recruiting and selecting suitable (i.e. motivated and with the basic competence required for succeeding in a learnership) learners.

3) Formal procedures in setting up, dealing with the learnership (e.g. learnership agreement, WSP, etc.): This process includes all formal procedures surrounding the actual implementation of the learnership. Given the tremendous concerns regarding the administrative burden or bureaucracy of the system (refer to Section 2.5.4) this process is undoubtedly one of the central processes to evaluate. Babb and Meyer (2005) confirm this perception, as they also include the administration of the system as a key element of effective learnerships. They justify this by saying that "... anecdotal evidence suggests very strongly that the administrative burden of learnerships is unacceptably high" (p. 27).

4) Financing scheme of the system (levy claiming system): Fourthly, users of the system identify the poor levy-claiming record of the construction industry (McGrath & Paterson, 2007) and the financial difficulties experienced by the CETA (refer to Section 2.2.2) despite acknowledged funding needs (refer to Section 2.4.2.1). However, this process is also supported by Davies and Farquharson (2004), who identify the access to funding as the major physical constraint to learnerships.

5) Quality of training delivery (training infrastructure and instructional materials): The fifth process is the actual quality of training delivery by the providers (both institutional and workplace). Babb and Meyer (2005) discuss and identify this process under the elements quality of learning provision and the quality of on-the-job learning and work placement. This process seems particularly important to evaluate considering the challenges discussed regarding the institutional landscape (refer to Section 2.4.1.2) and the training capacity and competence of the construction industry (refer to Section 2.4.2.3).

6) Process of assessment and certification: The process of assessment and certification (through accredited assessors) is the sixth central process, which can be identified. This is supported by the analysis of Babb and Meyer (2005), who identify this process as one of the most important, yet least effective processes. They argue that the complex subject of assessment shows considerable variations in its actual success and that it either tends to be mechanistic or minimalistic. This perception seems consistent with the criticisms levelled at the assessment process under Section 2.5.1. Thus this process needs to be reviewed in an evaluation of learnerships.

7) – 12) Further processes: Six further processes were identified in discussions with the stakeholders. These processes were considered particularly important for the purpose of the current research and include the following process elements: (1) The support given by the CETA; (2) the cooperation between the different stakeholders, (3) the regional availability of institutional providers, (4) a customised time-schedule for formal training, and (5) the duration of the training (length of practical and formal training). With regards to the specific HIV/Aids related challenge affecting the industry (refer to Section 2.4.1.6) the provision of HIV/Aids prevention training (6) was also included.

To summarise, the aforementioned 12 processes can be included under learnership processes. What becomes clear from this overview is that some of the processes (e.g. information on the system, availability of suitable candidates and regional availability of institutional providers, etc.), could as easily have been selected as 'inputs' to the system. The distinction between 'processes' and 'inputs' is not clearly defined in terms of which elements are to be considered under which heading. While Bloom and Meyers' (2003) framework classifies 'resources' such as learner support, infrastructure and teachers to the dimension 'process', Nielsen and Visser (1997) allocate the 'resources' to the 'input' dimension. The inherent classification problem is best pictured in the statement of Davies and Farquharson (2004, p. 336), who say that the 'process' of learner recruitment and selection is "a critical 'input' into the establishment of every learnership". For the purpose of this study the above allocation has been made. This list seeks to guide the specific evaluation of this research and cannot be regarded as a generalised list for all learnership evaluations. The list of 'learnership processes' will consequently vary with every evaluation, as the content and the importance of certain elements is highly influenced by the individual context of the learnership.

2.6.6.4 Learnership input

In reviewing the entire learnership system, two central 'inputs' remain and can be identified as learnership input. These are learnership motivation and learnership competence. As the motivation and competence of the learners (which are also considered key for an effective learnership system) have already been addressed under learnership processes (i.e. recruitment and selection of suitable candidates) these inputs focus solely on the provider side (i.e. institutional and workplace providers).

Provider learnership motivation: The learnership system can only become effective, if the providers are motivated 'to make it work'. This is often referred to as the buy-in of the stakeholders and for the purpose of the current study will be referred to as the provider learnership motivation. The lack of buy-in from the provider side has been identified by the SETAs as a key constraint (Kruss, 2004) and also by the analysis of Babb and Meyer (2005), who identify this area as one of the sections where most learnerships experience difficulties. It is further supported by the findings of Davies and Farquharson (2004, p. 346), who state that: "One of the most important elements of learnership succeeding ... is to have the buy-in from all parties before the learnership commences". Given the particular situation in the South African construction industry

(refer to Sections 2.4.1.4 and 2.4.2.2.) learnership motivation must undoubtedly be considered as a key input for the evaluation undertaken in this study. Given the expectancy or instrumentality theory of Vroom (1964) the motivational level of an individual is based on a combination of the individual's belief in the likelihood of achieving certain outcomes from his actions (i.e. expectancy) and the value of those outcomes to him (i.e. valence). Outcomes have a certain valence value to the individual because they are instrumental in achieving other outcomes. (Goldstein, 1986; Levy, 2003; Vroom, 1964, 1995). Thus, provider learnership motivation will be influenced by the outcomes (and their value to the providers) and the providers' expectation of achieving those outcomes by exerting a certain amount of effort.

Provider learnership competence: The second central input is the provider's ability to deal with the learnership system. This input has been identified by Babb and Meyer (2005) in three areas, i.e. the quality of learning provision, on-the-job learning and the provision of mentoring and coaching support. Most importantly though provider learnership competence is particularly relevant for the current study as noted in the discussions on training capacity and competence challenges in the construction industry (refer to Section 2.4.2.3). The competence level required as input for an effective learnership system is summarised under the heading provider learnership competence. For reasons of consistency provider learnership competence will also be made up of the three interrelated competence-clusters, adapted to provider learnership competence: (1) technical provider learnership competence includes, the professional knowledge or expertise to train the profession, (2) methodological provider learnership competence includes for example recruitment methods for attaining, finding candidates; proper assessment of candidates, conducting the training (i.e. effective methodology, training methods for training the intended curricula) and appropriate evaluation (OBE), etc. and (3) interpersonal provider learnership competence includes guiding and mentoring the learner; dealing with problems that emerge during the learnership (such as discipline, motivation, drugs, HIV and learning problems).

Performance is dependant on a multiplicative relationship between ability (here referred to as competence) and motivation. There can only be performance, when the individual has the ability ('can do') and the motivation ('will do') to perform (Vroom, 1995). Consequently, a performing (i.e. effective) learnership system can only be achieved in combination with the two aforementioned inputs.

2.6.6.5 Summary and evaluation process

In conclusion, based on the key elements established above the following framework for learnership evaluation can be developed:

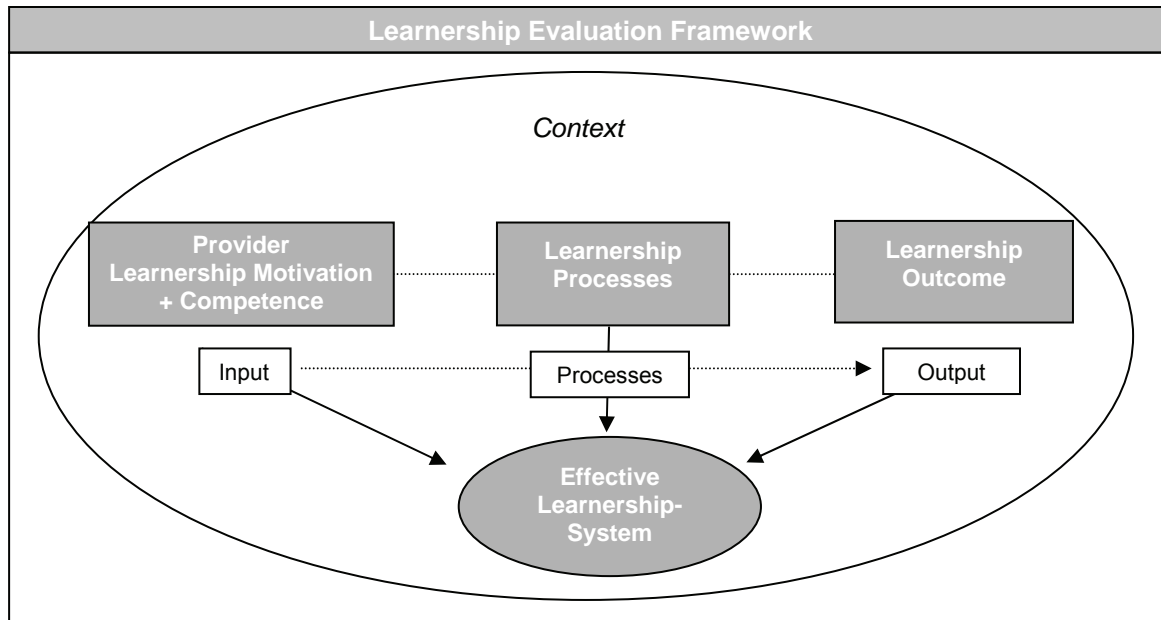


Figure 2.2: Learnership Evaluation Framework

Every framework or model created for evaluation is a simplification of reality and attempts to reduce the complexity inherent in the system being evaluated, by selecting a small number of variables for study (Madaus et al., 1980; Edney, 1972). It is likely that a different approach may have led to a very distinct framework for evaluation with other elements placed in the key dimensions (outcome, process, input). This problem is inherent to evaluation as is the tension of being scientific on the one hand and pragmatic on the other hand - this means, serving the needs of the intended users and designing an evaluation that is feasible in the given constraints of the 'real' environment. Rossi et al. (2004) have provided a detailed account of the various opposing positions by leading evaluation theorists such as Donald Campbell, Lee Cronbach, and Michael Patton regarding this scientific versus pragmatic tension. The above stated model has tried to accomplish a workable balance between the emphasis placed on a framework being scientific and making the evaluation timely, feasible and useful for the different stakeholders approached in the learnership evaluation. This approach is supported by Rossi et al. (2004). Nevertheless under such circumstances, trade-offs have to be made as it is rarely possible to serve both interests equally well. This framework slightly favours the pragmatic approach regarding its intended use and the needs of the stakeholders, and hence does not claim to be a rigorously scientific model. Furthermore, this is the first attempt to establish a comprehensive learnership evaluation (i.e. including all aspects of learnership implementation and all primary stakeholders). It is thus intentional, that the framework does not include arrows indicating potential causal relationships between the different factors. This would require further validation and additional research particularly on the precise nature of these relationships, and thus cannot be provided at this stage. However, the intention of this research is to uncover the factors that influence the efficient and effective implementation of learnerships. Accordingly, the developed model must be perceived as a framework indicating those factors and as a working model that can serve as a sound basis for further inquiries.

Evaluation process: The more commonly-cited literature on evaluation describes various approaches on how to conduct an evaluation process (for example, Campbell, 1998; Stufflebeam, 2004; Phillips, 1997). Since the utilisation of the evaluation was a primary concern of the current study, Patton's approach and consequently his suggested evaluation process have been adopted. In his utilisation-focused approach Patton (1986, p. 331) primarily follows these six steps during evaluation: (1) Identify the stakeholders or primary intended users of the evaluation; (2) determine focus of the evaluation (in cooperation with stakeholders); (3) make design, method and measurement decisions; (4) collect data from various perspectives; (5) organise and analyse data (with involvement of stakeholders); and (6) disseminate data for utilisation. The previously established standards and principles of evaluation (i.e. utility, feasibility, propriety and accuracy; refer to 2.6.3) will guide the evaluation process overall.

Conclusion: Chapter 2

The theoretical foundations for this study have been laid in this chapter. This was done firstly, by providing a comprehensive overview of the learnership system and its historical origins as well as the reform process that led to its introduction. Secondly, the chapter examined key challenges to the implementation of the system in the South African context, and more specifically, in the environment of the construction industry. Thirdly, general criticisms of the learnership system were discussed. Later in the chapter, key concepts and models of evaluation theory were reviewed. Understanding these was an essential precondition for deciding on how to approach a learnership evaluation, and thus to develop a specific model that could serve as a framework for the evaluation process. This framework was presented at the end of the chapter. A detailed description of the selected research methodology for the evaluation process and the measurement instruments applied will now be provided in Chapter 3.

Chapter 3: Research Methodology

3.1 Introduction

Building on the insights gained through the theoretical framework presented in previous chapters, this chapter will provide an in-depth discussion of the overall research design applied. It contains a detailed description of the measurement instruments used, the sample groups for data collection as well as the actual collection process. Finally, a discussion of the methods utilised for statistical analysis is provided.

3.2 Research design, methods and framework

Applying a suitable design, selecting appropriate collection methods for the given context, knowing which groups to collect data from and providing an overall framework, which manages the process as a whole are indispensable factors for a good and successful evaluation effort (Aspinwall et al. 1992; Erasmus et al. 2007). Accordingly, the following sections will outline and discuss these key elements in further detail.

3.2.1 Research design

The primary design applied in this study was an ex post facto, mixed methods research design with the use of a structured questionnaire.

Ex post facto research takes the world as given and studies the effects after they have occurred (Punch, 1998). The central question within ex post facto research or otherwise called non-experimental research is: What are the causes of an effect? As Kerlinger and Lee (2000, p. 558) define "...non-experimental research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred". The major weakness of this form of research is considered to be the lack of this control by the researcher. Despite its inherent weakness, ex post facto design is one of the most common approaches to social scientific and educational research problems, as these often do not lend themselves to experimental inquiry. The design itself is thus valuable, but it implies the risk of improper interpretation. Interpretation of research data must therefore be carried out with utmost caution (Kerlinger & Lee, 2000).

A mixed methods approach is one in which the researcher employs strategies of inquiry that involve collecting quantitative and qualitative data either simultaneously (concurrent) or sequentially to better understand the research problem. The data collection involves gathering both quantitative and qualitative information (Creswell, 2003). While quantitative research typically focuses on verification and explanation in a predetermined and structured way, qualitative research methods are particularly suited to exploratory

research and uncovering meanings people assign to their experiences, in a more flexible way. There are thus strengths and weaknesses to both approaches: The first, being precise, comparable and 'objective' due to its systematic approach, but inflexible and limited to its predefined structure. The second, being flexible, multi-dimensional (rich) and more holistic in its understanding, but less standardised and therefore often considered more 'subjective' or less scientific (Burns, 2000; Creswell, 2007; Punch, 1998).

By blending qualitative and quantitative methods it is possible to benefit from the strength of one method while offsetting its weaknesses through the other method (Rubin & Babbie, 2007). A mixed method design is therefore considered useful, if one attempts to enhance the scope and the depth of the research by capitalising on the best of both quantitative and qualitative approaches (Creswell, 2003; Punch, 1998).

3.2.2 Research methods

The mixed method design for this study included quantitative and qualitative methods, i.e. survey research and key informant interviews.

Survey research: Survey research is the most frequently used method in social sciences and may be used for descriptive, explanatory and exploratory purposes (Babbie, 1979; Rubin & Babbie, 2007). As Rubin and Babbie (p. 146) indicate "...survey research is especially appropriate for making descriptive studies of large populations". The advantage of a wide scope (a great deal of information from a large population) is also supported by Kerlinger (1973). Furthermore, he acknowledges survey research as being distinctively valuable for research in education and best adapted to obtaining personal and social facts, beliefs and attitudes. Features, which were found to be useful within the context of the studied population and the research aims of this study.

Key informants: Key informants, is a qualitative approach which is utilised to obtain expert opinions from individuals who are presumed to have specific knowledge about the target population's problems and needs. The main advantage of the key informant approach is that a sample can be surveyed quickly, easily and with relatively low cost. In addition, key informants are considered useful for building connections with the studied population and giving the study visibility (Rubin & Babbie, 2007). One major disadvantage though is that the collected information is not coming directly from the target population. This, however, is not true for this study as the key informant interviews only provided additional expert views on data collected within the other populations.

To ensure that the study would provide perspectives from multiple observers and reflect the opinions of all major stakeholders involved in the system, the mixed methods design was implemented for the key stakeholders of the learnership system in the building and civil industry in the Western Cape. The key stakeholders were selected as previously defined in the theoretical framework (refer to Figure 2.1 in Section 2.2.6). Table 3.1 demonstrates the methods design implemented for the individual groups of stakeholders.

TABLE 3.1
MIXED METHODS DESIGN FOR KEY STAKEHOLDERS

Stakeholder group	Instrument	Medium/Technique
Building and civil companies		
<ul style="list-style-type: none"> ▪ Large, Medium-, Small/Micro-sized ▪ involved and not yet involved in the system 	Structured questionnaire	Web-survey
Construction Learners (completed learnership in 2006)	Structured questionnaire	Telephone survey
Accredited Training Providers	Structured questionnaire	Interview survey
Construction Education and Training Authority (CETA)	Structured questionnaire	Key informant interviews
Industry-related Associations and Bodies		
<ul style="list-style-type: none"> ▪ Black Construction Council (BCC) ▪ Building Wood and Allied Workers' Union of South Africa (BWAUSA) ▪ Construction Industry Development Board (cidb) ▪ Department of Public Works ▪ Master Builders Association (MBA) ▪ South African Federation for Civil Engineering Contractors (SAFCEC) 	Structured questionnaire	Key informant interviews

Web-survey: A web-based survey was conducted for the employer group. Online surveys have specific advantages compared to traditional mail surveys among the biggest stated by relevant literature are efficiency, speed in data collection/entry, low cost (economic) and convenience for participants (Cobanoglu & Cobanoglu, 2003; Sax, Gilmartin & Bryant, 2003). Moreover, online surveys are considered particularly attractive, if the survey population is distributed across a large geographic region (Van Selm & Jankowski, 2006).

The major advantages for this research were the time benefit and low costs in reaching a large population spread across a wide geographic area (in this case the Western Cape) as well as the convenience for the respondents as no paperwork would be included. It further provided a relatively easy follow-up of the study and the enhancing of responses with reminders, an aspect much more costly and time-consuming in other forms of surveys (van Selm & Jankowski, 2006).

Telephone survey: For the group of the construction learners the comparatively more time-consuming telephone survey method was selected. Telephone surveys lend themselves specifically to structured interviews, if people are spread over a large geographical area and provide the advantage of quick and high response rates (as a call is less easy to ignore than an mail/email) which helps to reduce bias associated with non-response (Calvert & Pope, 2005; Rubin & Babbie, 2007). Importantly, the phone survey ensured better accessibility of the learners, as internet access (email) could not be generally assumed, whereas

access to a phone was expected to be given in most cases. The possible disadvantage of losing information through the lack of face-to-face interaction was regarded as minor, since the survey was conducted on the basis of a structured questionnaire.

Interview survey: The interview survey was selected for the regionally more accessible provider group, the CETA as well as the key informants. Main advantages of personal interviews are a high response rate and the opportunity to collect additional information by observing the respondent's non-verbal communication and the environment in which he/she is responding. Moreover, a greater flexibility in conducting the interview and possible interaction with the respondent was considered to enhance the information gained within this method even further (Burns, 2000; Rubin & Babbie, 2007). Major disadvantages of interviews include that they are time-consuming, more costly and the possible threat of interviewer bias. These disadvantages however, were limited for the current study as the interview survey was conducted for a small group of respondents and on a structured basis.

In order to ensure that the study would be conducted in close contact with the stakeholders and would be finalised in a predictable time frame, an overall framework with projected time lines was established. For an overview of the research framework including its individual stages refer to Appendix B.

3.3 Sample and sample size

The aim was to collect data that were representative of each group. Accordingly, a detailed examination of the defined stakeholder groups was conducted and appropriate samples (considering the given context of the study, available research resources and the set time frame) of each stakeholder population were drawn. The sampling process and individual sample sizes for the individual stakeholder groups are described below.

3.3.1 Building and civil companies

As stated previously, the construction sector is characterised by a large number of informal businesses, which severely hampers the provision of exact data on existing companies in the industry. Due to the diverse nature of the industry, those businesses which are active within the formal economy do not all register within the same industry association. In addition, data recorded within the various databases is not always categorised into the three main sub-sectors, namely (1) Building and civil, (2) Materials and manufacturing and the (3) Built Environment professional consulting. As the same business can be registered within several associations simultaneously, some data on businesses may furthermore overlap and provide incorrect information.

As a result, it was impossible to obtain reliable and accurate data on the total number of businesses, currently active in the Building and civil sector of the Western Cape. Data retrieved from the accessible and most trustworthy resources, namely: South African Revenue Service (SARS), Construction Education and Training Authority (CETA), Construction Industry Development Board (cidb), Master Builders Association (MBA) and South African Federation of Civil Engineering Contractors (SAFCEC), indicated figures ranging from 384 (MBA, 2007) up to 7338 businesses (SARS, 2007).

Adapted approach for sampling: The sampling and data collection in the web-survey relied on resources which could provide existing email contacts for building and civil companies active in the Western Cape. These were the following: CETA, cidb, MBA, SAFCEC and specific web-sites for the construction industry. The adapted approach led to a sample frame of $n = 729$ building and civil companies to be contacted. Due to the different underlying definitions of the categories (small/micro, medium, large) made in the utilised databases, a further distinction of this sample into small/micro, medium and large businesses could not be made.

Reachable sample: When actually contacted to take part in the web-survey, 164 out of the 729 email-addresses were found to be undeliverable and failed due to mailer-daemon (i.e. unknown user, non-existent domain, temporary over-quota email account). 23 email-addresses out of the 164 mailer-daemons could be recovered by individual research (internet/phone), with a 141 mailer daemons left unsolved. This lead to an actual reachable sample of $n = 588$ businesses. Refer to Section 3.5 for a detailed discussion of the collection process.

3.3.2 Construction Learners

The learner sample consisted of a cluster of 766 learners, who completed their construction-learnership in the Western Cape throughout 2006 (Completion date between 01/2006-12/2006).

Limitation of the sample: Limitation to the referred time frame was made, in order to ensure that the time period after completion was long enough, so that there was an opportunity to use the knowledge and skills trained, and learners would get some feel of how well they were prepared for the job. But the period also had to be short enough so that learners would still remember what the training actually consisted of (Campbell, 1998). Furthermore, information collected should reflect the current situation and not opinions about the system that might not be valid anymore.

The restriction to completion was made in order to ensure, that respondents were able to reflect on the entire process of the learnership and could make statements with regard to their employability or further training opportunities after completion. A list, including the names and relevant learnership details for the sample of $n = 766$ learners was obtained from the most recent CETA database.

Reachable sample: 149 learners out of the total list did not provide a contact number, which would be necessary for conducting the planned phone-interviews. This resulted in a reachable sample size of $n = 617$.

3.3.3 Accredited Training Providers

The sample frame for the Accredited Training Provider Group consisted of the 5 major training providers, currently active in providing formal construction training in the Western Cape. The list of training providers interviewed was derived directly from the CETA database and included the following: AGR National Training cc, Corobrick Building Training Centre, LSA School of Technology (Pty) Ltd, Tjeka Training Matters (Pty) Ltd, Boland College (Paarl Campus), Northlink College (Belhar Campus).

Reachable sample: Opinions of various staff members of these institutions (Regional Manager/Managing Director, Head of Department, Training Coordinator/Manager, Instructors) were included, resulting in a total sample size of $n = 10$. Additional input from other Accredited Training Providers (from other provinces) was obtained during the data collection process, which increased the sample size to $n = 14$.

3.3.4 CETA, Industry-related Associations and Bodies

CETA: For obtaining the view of the CETA, a sample of three key staff members was drawn. The sample consisted of the Western Cape Manager, the newly appointed Chief Operations Officer, Head office and the former CETA Training Operations Manager, thus $n = 3$ interviews.

Industry-related Associations and Bodies: This group included a sample of influential industry institutions, of which most are represented on the CETA Regional Committee. The entire sample included seven key informant interviews ($n = 7$) from the following institutions:

- **Organised Employer Bodies (n=3):** Black Construction Council (BCC), Master Builders Association (MBA), South African Federation of Civil Engineering Contractors (SAFCEC).
- **Organised Labour (n=1):** Building Wood and Allied Workers' Union of South Africa (BWAWUSA)
- **Government Departments including Statutory Bodies (n=3):** Construction Industry Development Board ($n=2$), Department of Public Works (Western Cape) ($n=1$).

3.3.5 Summary of sample structure

As can be seen, the sample structure of the study was quite diverse and spread across the different stakeholder groups involved in the learnership system. In summary, Table 3.2 presents a detailed overview of the studied populations and the overall sample structure.

TABLE 3.2
OVERALL SAMPLE STRUCTURE

Stakeholder	Population	Medium	Sample size = n
Building and civil companies <i>Contacts received from CETA, cidb, MBA, SAFCEC and the Internet.</i>	729 <i>(588 with correct details)</i>	Web	n = 100 (target) <u>Reached: 99</u>
Construction Learners (completed learnership in 2006) <i>List and contact details received from CETA</i>	766 <i>(617 with numbers)</i>	Telephone	n = 100 (target) <u>Reached: 135</u>
Accredited training providers <i>List and contact details received from CETA</i>	5	Interview	n = 10 <u>Reached: 14</u>
CETA (Western Cape Manager, COO and Training Operations Manager)	3	Interview	n = 3 <u>Reached: 3</u>
Various representative associations/bodies: BCC, BWAUSA, cidb, Department of Public Works, MBA, SAFCEC	7	Interview	n = 7 <u>Reached: 7</u>

3.4 Measuring instruments

In the absence of an existing measurement instrument, a specific questionnaire was developed for the purpose of the study. Refer to Appendix C-F for the questionnaires. This instrument was based on the research questions and the evaluation framework established in Chapter 2 as well as supplementary expert interviews, used to verify the content and identify additional areas of concern in the major sections.

3.4.1 General questionnaire design

The questionnaire (the basic major design applied to all investigated groups) consisted of **6 main sections**, namely:

Section A - Learnership satisfaction and appropriateness of the learnership system

Section B – Provider learnership competence

Section C - Learnership processes

Section D – Provider learnership motivation

Section E - Learnership outcome

Section F - Statistical data, skill constraints and open comments

In the individual sections, responses were based on 5-point Likert-type scales. In addition to these, provision was made in most sections for respondents to include qualitative answers in order to clarify their rating choices and qualify the quantitative data.

Section A - Learnership satisfaction and appropriateness of the learnership system: This section measured the general satisfaction of the stakeholders with the learnership system as a whole and the appropriateness of the system for developing artisans. It thus consisted of two sub-sections. The first measured the general satisfaction level. Responses were based on a 5-point Likert-type intensity scale ranging from *extremely satisfied (1)* to *not at all satisfied (5)*, with *satisfied (3)* as the midpoint. For qualifying their rating responses in this section, respondents were given a blank space to state three major reasons. The second measured the perceived appropriateness of the system based on a 5-point Likert-type intensity scale ranging from *definitely (1)* to *definitely not (5)*, with *fairly likely (3)* as the midpoint. In an open-ended section, respondents could clarify why they had made their rating choice.

Section A was explicitly set at the beginning of the questionnaire, to obtain an upfront attitude from each respondent, which would not be influenced by the detailed questions following in the other sections of the questionnaire.

Section B – Provider learnership competence: Section B measured competence and readiness to train by the accredited training providers/employers. Provider learnership competence distinguished between the 3 sub-sections, Technical Competence, Methodological Competence and Interpersonal Competence. Respondents based their ratings on a 5-point Likert-type intensity scale ranging from *extremely well prepared (1)* to *not at all prepared (5)*, with *prepared (3)* as the midpoint. Detailed descriptions of the 'competence terms' were included in the questionnaires to ensure a consistent understanding among all respondents. Furthermore, respondents could indicate, whether they would appreciate any support in the questioned items of learnership competence (i.e. recruitment methods of attaining or finding candidates), by whom they would appreciate support (CETA, cidb or other) and in which specific area.

Section C - Learnership processes: In this section the different aspects important for an efficient and effective learnership system were measured. The learnership processes section consisted of 12 items, such as *availability of information in the learnership system and its benefits, formal procedures in setting up, dealing with the learnership system, support given by the CETA, process of assessment and certification (through accredited assessors*. The 5-point Likert-type intensity scale within this section ranged from *excellent (1) to poor (5)*, with *good (3)* as the midpoint. The section ended with an open space for general comments on learnership processes.

Section D – Provider learnership motivation: Section D measured the general motivation of the providers to become involved or stay involved in the learnership system. Ratings were based on a 5-point Likert-type intensity scale ranging from *extremely high (1) to no interest at all (5)*, with *high (3)* as the midpoint. The overall rating was followed by a contingency question. If respondents rated in the first three categories, they were asked to give their reasons for being motivated in an open-ended section. If they selected *low (4) or no interest at all (5)*, a multiple choice selection of 5 items was given, including choices such as *formal/administrative constraints, duration of training (too short), other (to be specified by respondent)*.

Section E - Learnership outcome: Learnership outcome measured the work readiness or employability, and further training opportunities of the learners, who completed the learnership programme. For the learner group this section recorded the current employment and income status of the respondent with pre-defined selection choices given, e.g. *employed with former employer, unemployed seeking work in same profession, pursuing further education in other profession*, etc. In addition, the section measured the learner's opinion on whether the learnership had improved his/her chances for employment, for a higher income or a promotion. Responses were based on a 5-point Likert-type intensity scale ranging from *definitely (1) to definitely not (5)*, with *fairly likely (3)* as the midpoint.

In the other stakeholder groups, learnership outcome was measured according to the three following dimensions: Technical competence, Methodological competence and Interpersonal competence. Measurements were based on a 5-point-Likert type intensity scale ranging from *excellent (1) to poor (5)*, with *good (3)* as the midpoint. A multiple choice section was used, to further verify the competence dimension, which in the opinion of respondents should be addressed more in future. The four choices to be selected from included the three sub-dimensions of competence as well as the selection 'just keep it the way it is'. In addition, an open section for indicating the appropriate length of training in months (formal and practical training length) was provided. It was divided into two sub-sections, first the appropriate training length for NQF 2 level (worker) and second the appropriate length for level NQF 3-4 (artisan).

Section F - Statistical data, skill constraints and general comments: Section F recorded respondent demographic data, depending on the responding stakeholder group. The learner questionnaire recorded the general educational level, company-size, type of learnership (18.1/18.2), the NQF level of the learnership, as well as general information on age, gender and ethnic group. For the other groups this section included

sample characteristics such as training history and activity, business establishment date, company-size (1-49; 50-150; >150), as well as the current position of the respondents in the organisation. They were then given the opportunity to quantify and qualify skill constraints at NQF2/ NQF3-4 level for the upcoming year. At the end of the section unlimited space for general open comments was provided to all respondents.

3.4.2 Questionnaire design for the various stakeholder groups

For the various stakeholder groups four different questionnaires were designed. All questionnaires followed the same basic design, with differentiations made according to needs (refer to Section 3.4.1). This was done in order to make cross-checks and comparisons (triangulation) possible. The four questionnaires designed for the purposes of the study were as follows:

- Company Questionnaire and Web-design (Appendix C)
- Learner Questionnaire (Appendix D)
- Accredited Training Provider Questionnaire (Appendix E)
- CETA/Industry-related Associations and Bodies Questionnaire (Appendix F)

Afrikaans translation for learner questionnaire: As a significant number of the learners in the contact list, indicated Afrikaans as their first language, the learner questionnaire was not only designed in English, and also translated into Afrikaans. To avoid errors in translation, the first translation was verified by an additional translator. For conducting the phone interviews a bilingual design was then implemented (refer to Appendix D.)

3.4.3 Design with regards to response rate and research questions

As it is widely recognised, the length of a questionnaire affects the response rate: The longer the questionnaire, the lower the response rate (Janes, 1999; McCarty, Harman, House & Richards, 2006) and the quality of responses (Campbell, 1997). The different questionnaires were thus designed in order to ensure effectiveness, but that the length of the questionnaire still remained efficient for the users. The aspect of ensuring an effective and efficient length was especially considered in the design of the phone-survey, since a recent study on telephone surveys showed, that a ten-minute increase in survey length, results in a 7% decrease in the response rate (McCarty et al., 2006, p. 172). Calvert and Pope (2005, p. 145) state, that a telephone survey that takes an average of 8.5 minutes to complete, has a response rate of 88%. Taking these two findings into account the maximum length for the conducted phone-survey was set to 10 minutes in total.

Pre-tests in all stakeholder groups were used to confirm the suitability of the questionnaires, to ensure the clarity in wording and understanding as well as their completeness with regards to the research objectives.

Table 3.3 demonstrates the research questions and the instruments applied for their measurement. All research objectives were measured from at least three perspectives.

TABLE 3.3
RESEARCH OBJECTIVES AND MEASUREMENT INSTRUMENTS APPLIED

	<u>Building and civil companies</u>	<u>Construction Learner</u>	<u>Accredited Training Provider</u>	<u>CETA, Industry Associations/Bodies</u>
	(Web-survey)	(Telephone survey)	(Key informant interviews)	(Key informant interviews)
Learnership satisfaction	✓	✓	✓	✓
Appropriate instrument?	✓	-	✓	✓
<i>Learnership Evaluation Model:</i>				
Motivation (employer, provider)	✓	-	✓	✓
Competence (employer, provider)	✓	✓	✓	✓
Processes	✓	✓	✓	✓
Outcome 1: Learnership satisfaction (see above)	✓	✓	✓	✓
Outcome 2: Applied competence	✓	✓	✓	✓
Outcome 3: Employability, further learning opportunity	✓	✓	✓	✓
Obstacles observed, major priorities to be addressed	✓	✓	✓	✓

3.5 Procedures

The following section outlines the procedures followed for data collection. It is divided into four subsections, each providing a detailed discussion of the data collection process for the individual stakeholder groups. The sections include the general collection procedure applied, pre-tests conducted, the actual process of data collection, major difficulties encountered during this process as well as the overall time frame for collection.

3.5.1 Web-survey: Building and civil companies

Building on the established company questionnaire design, the web-platform was programmed by a specialised web-designer. Programming was done with a particular focus on simplicity and user-friendliness in design, as this is acknowledged to be significant for response (Dillmann, Tortora, Conradt & Bowker, 1998; Van Selm & Jankowski, 2006). Dillmann et al. (1998) found that a plain questionnaire design obtained a higher response rate, was more likely to be fully completed and took respondents less time to complete.

Web-design: For a high quality in collected data, Punch (1998) points out that it is necessary to ensure that respondents have been informed about the purpose and context of the research, confidentiality and anonymity, as well as of what use will be made of the information they provide. The survey introductory screen therefore included a short description of the research aims as well as detailed information on privacy/confidentiality of responses and the final result distribution. As previously stated, time is considered as one of the key issues for response. Consequently, an average response time (derived from the pre-tests) was indicated and a 'progress bar' installed. Contact details of the researcher were further provided. The entire questionnaire was programmed into subsequent pages which were delivered sequentially as respondents progressed through the instrument. All pages had a guiding section indicator above the questions and demonstrated the current progress on responses, indicated by the 'progress bar'. This is in accordance with the findings of Couper et al. (2001) cited in Van Selm and Jankowski (2006, p. 442), who found that "... the presence of a progress indicator reduces respondent loss, and that the use of multiple item screens generate faster completion times and reduction in missing data". For details on the web-design please refer to Appendix C.

Missing data check, skip logic: A general logic was programmed behind each question, to ensure that respondents would not miss out any section by accident. In case a respondent would not respond to a question a pop-up appeared, clearly indicating the question, which had not been answered and providing the user with the option either to respond to the question itself or to mark 'don't know/no response' instead. Sections which were not applicable to the respondent (i.e. training history) could be skipped by a server driven logic.

Secured access: In order to ensure that no unauthorised user would be able to enter the platform and manipulate results, entry to the web-questionnaire was secured by a general username and password, only accessible to those companies actually invited to the platform. Individual logins for each respondent were considered in the first planning process, but not implemented as the possible threat for respondents in terms of their anonymity was considered too high. A view substantiated both by Smith as well as Heerwegh and Loosveldt in Van Selm and Jankowski (2006). Smith argued against any use of survey identification procedures as it could be considered a breach of respondents' anonymity, and thus negatively influencing response rate. The findings of Heerwegh and Loosveldt though demonstrated that a semiautomatic login procedure (one access code to be typed in) does not decrease response rates. Preference was therefore given to the general securing of the platform.

Upfront measures to enhance response rate: As various research on online surveys has indicated, the use of pre-notice in web-surveys significantly increases response rates (Lozar Manfreda & Verhovar, 2002; Van Selm & Jankowski, 2006). In order to ensure a good response rate, personal contact was therefore made upfront with 10 construction employers from the 'Go for Gold Employer list' prior to the data gathering. The 'Go for Gold Programme', is a unique public-private partnership between a number of corporate concerns, representative of the construction sector and the Western Cape Education Department, which

was established in 1999. It was a response to the critical shortage of candidates from disadvantaged communities with the necessary grounding in science and mathematics for entry into the construction, building sciences and engineering fields (Blaine, 2008). The pre-notice contact included general information on the study as a whole, its research aims as well as a short overview of the survey contents.

Pre-tests: Four weeks prior to the official online date of the survey the web-platform was pre-tested with GTZ, CETA, cidb and four building companies of small, medium and large size. Final minor adjustments on wording and layout were made. The general feedback on the platform though was: *Content includes all major aspects, user-friendly design, very easy to complete; average response time of 10 minutes, might have the potential for conducting surveys in other provinces.*

Data collection process: According to schedule the web-platform went online on July 2, 2007. The contacted businesses received the invitation email early in the morning (8:30-9:30 am) the same day and from then on had the opportunity to fill in their responses. Response rates can be increased if respondents see the email as salient (Sheehan & McMillan, 1999), therefore the subject line of the email invitation was used to demonstrate the relevancy of the survey topic to the respondents. The email itself included a detailed description of the research project and aims, the average response time needed as well as a direct link to the web based questionnaire with all necessary information for entering the platform.

The companies provided by the established list received email invitations with a generic salutation, whereas the companies, which had been contacted upfront, were invited with personalised emails. Even though recent research has found that personal salutations in email-invitations increases response rates (Heerwegh, 2005), this measure could not be applied in general within the study as the overall contact list did not include individual names with the email addresses. Personalisation could therefore only be exercised for the Go for Gold Employer group.

Difficulties encountered: The process of sending out the invitation emails proved to be rather time-consuming. The constraints in the mail-server capacity allowed only 20 emails to be sent out at a time. Furthermore, 146 emails out of the list were returned due to mailer-daemon and had to be recovered by manual research. Further difficulties were encountered with regards to access and participation. Some respondents encountered difficulties entering the platform as they were not aware of the username and password given within the invitation email, while other respondents said the email in html-format had been put into quarantine by their firewall. After the first week only 8 respondents had filled in the questionnaire. In order to counter these difficulties, the following measures were followed:

- Simplified access to the platform: The mandatory use of 'username and password' was deleted from the introductory page after the first week and access granted by pressing the start-button. Nevertheless, the IP-address of users and responding times were recorded, to ensure that manipulations through several entries by one and the same respondent could be prevented.

- Early weekly reminder reflecting response rate: Each week a reminder was sent out to every participant, clearly stating the current response rate. The reminders were sent out very early in the morning (5:40-6:30 am) as research on online surveys has found that early email invitations show a far higher response rate, than web-survey emails sent out during later business hours. According to Hamilton (2003) response rates and response time strongly correlate with the time of the day at which invitations are sent out to participants. Thus according to his research (p. 5) response rates are highest for survey invitations sent out between 6:00 and 9:00 am.
- Email reminders in basic formatting: The format of the reminder emails was reduced to a basic design, which would have less probability being blocked by a firewall.

The measures proved successful as with every reminder an additional average of 20 responses could be obtained. In total 90 businesses answered the questionnaire on the web-platform. 9 businesses responded via mail, saying that the study did not apply to them, due to the following reasons: (1) one-man business, (2) business closing down, (3) newly established, (4) mainly operating in different industry, only linked to the construction sector. Overall this led to a response number of $n = 99$ (Response rate of 17%). As 9 responses did not include data, further analysis was only conducted on the sample of $n = 90$.

Time frame for collection: Data were collected in an overall time frame of five and a half weeks.

3.5.2 Telephone-survey: Construction Learners

Pre-tests: The learner questionnaire was pre-tested in June with 10 random respondents out of the contact list. The basic questionnaire design was found useful, but minor adjustments in wording and length had to be made. Refer to Appendix D for the questionnaire design.

Data collection process: The entire list of learners was phoned from top to bottom without any further selection procedures applied. Phone calls were made over a three month period during weekdays from 17:30–19:30 pm and on Saturdays from 11:00 am-12:00 pm and 14:00-16:00 pm, as these proved to be the most successful times for reaching the learners. At the beginning of every interview, a short introduction to the survey was given, the individual learner's identity verified and his willingness to partake explicitly confirmed. Interviews were conducted both in English and Afrikaans, depending on the indicated preferred language by the individual respondent. Two Afrikaans speaking fieldworkers were engaged to conduct the Afrikaans phone interviews. To ensure that the fieldworkers would be adequately prepared and informed on the research as such, a briefing session with sample phone interviews was set up and conducted prior to the actual fieldwork.

Difficulties encountered: A large number of learners could not be reached for the following reasons: (1) not available, not answering the phone, voicemail; (2) no longer a valid telephone number; (3) entirely

wrong number; (4) deceased. In the case of reason number (1), learners were phoned up to three times. The difficulties encountered in contacting individuals due to incorrect/no longer valid contact details are very similar to Smith et al., (2005) findings in their Baseline Survey on learnerships. Smith et al. (2005), who conducted 1207 face-to-face interviews with learners, also experienced a number of problems in obtaining comprehensive and accurate data from the different SETA databases. Overall, 6 candidates could not be interviewed, as their responses were incomprehensible (stated primary language: Xhosa, Sesotho, Afrikaans – but also not understandable for the Afrikaans fieldworkers).

No interviewee refused to take part. Most of the learners appreciated being asked about their learnership, were interested in the study and were willing to provide detailed input. Overall a total number of n = 135 interviews (response rate: 22%) was conducted.

Time frame for collection: The learner interviews were performed over a period of three months.

3.5.3 Interview survey: Accredited Training Providers

Pre-tests: The provider questionnaire was screened by two providers. No further adjustments had to be made.

Data collection process: After finalising the questionnaire design, personal interviews were conducted with each provider. E-mail or phone contact was made prior to each interview in order to inform the interviewee about the research and the questionnaire content. Refer to Appendix B for the individual interview dates.

Difficulties encountered: No major difficulties were encountered with the provider interviews. After interview arrangements had been made, all providers invested 1-2 hours in the interview and gave detailed input. In the case of two participants a personal interview could not be arranged in the given time frame. These respondents answered the questionnaire in an electronic format. Being very interested in the study as a whole, one respondent forwarded the questionnaire to further providers in other provinces, which instantly gave their input electronically as well.

Time frame for collection: Data among the providers was collected in a time frame of five and a half weeks.

3.5.4 Key informants interviews: CETA, Industry-related Associations and Bodies

Pre-tests: The relevant questionnaire was pre-tested with CETA, cidb and GTZ prior to data collection. No further adjustments had to be made.

Data collection process: Responses in this group were obtained both in personal interviews as well as in electronic format, where it was more applicable due to time constraints or geographical distance. All interviews were conducted by the researcher and were strictly guided by the structure of the established questionnaire. Refer to Appendix B for the specific interview/input dates.

Difficulties encountered: Data in this category was rather difficult to collect due to incorrect contact details and the availability of the contacted informants. Particularly in the case of the unions and employer organisations, contact details were not easily available and some of those that were obtained were found to be incorrect. In most cases several follow up calls had to be made and reminder emails sent to obtain an interview. In the actual interview though, respondents took their time and gave extensive input. The experienced difficulties were highly consistent with experiences reported by Goldman (2003), when conducting key informant interviews for her case study on the South African building industry.

Time frame for collection: Data collection in this relatively small group was the most demanding and time consuming. It required a collection period of three months.

3.6 Data recording and analysis

3.6.1 Data recording

All data filled in on the company web-platform were directly stored in a separate database, which were later transferred into a format functional for further data analysis in a statistical programme (csv-file). The data collected in the other stakeholder groups (through either personal or phone interviews) were first recorded in paper format and then transferred into an excel-file template. The transfer of data between the different media was double-checked for each respondent, to ensure that no data distortion occurred due to typing errors in this process. Both the csv-file as well as the excel-files were then used as a basis for the further statistical analysis.

3.6.2 Data analysis

Quantitative analysis: The main quantitative analysis applied within this study was descriptive statistics. The STATISTICA 8 programme (StatSoft, Inc., 2008) was used to analyse the quantitative data collected from the various stakeholder groups.

Descriptive statistics allows the researcher to summarise large quantities of data, and thus present them in a more understandable and manageable form (Burns, 2000). The typical measures employed in descriptive statistics are measures of central tendency (mode, means, median), standard deviation and variance as well as simple frequency distributions (Burns, 2000; Punch, 1998; Struwig & Stead, 2001). For the purpose of the current study frequency distributions (percentages) and means or medians were applied. First and foremost, these were used to summarise the results for the individual groups, but also to demonstrate similarities and differences between the respective stakeholders. According to Punch (1998) frequency distributions immediately give a 'hands-on feel' of the data and provide an initial understanding of the shape of the distribution of results. Frequency distributions are therefore considered especially useful in determining subsequent steps in the analysis.

The subsequent steps in analysis included inferential statistics or more precisely, non-parametric tests for independent group comparisons, which were applied to the building and civil company as well as the learner sample. Non-parametric tests or distribution-free tests are the accepted equivalent to parametric tests, if the assumptions for parametric tests cannot be met. The two major assumptions (among others) that should be met are a normally distributed, bell-shaped mean score in the sample as well as a measurement scale that is either interval or ratio (Five-Shaw, 1995; Struwig & Stead, 2001). As the data did not satisfy these basic assumptions, the non-parametric alternative was selected to test the set objective of investigating differences in the building and civil company data (i.e. being involved/not involved in training; differences depending on company size 1-49; 50-150; >150). Additional tests were performed for the learner group. The four tests within the learner group included comparisons between 18.1/18.2 learners (1), completed/not completed (2), with employer/without employer (3) as well as the relationship between the NQF level and the learnership outcome (4). The individual tests were chosen based both upon the rating scale as well as the number of groups to be compared.

Qualitative analysis: The richness and complexity of qualitative data means that there are a variety of practices available for qualitative analysis, for example Analytic Induction, the Miles and Huberman Framework, Abstracting and Comparing, Grounded Theory Analysis, Narratives, Ethnography, Discourse Analysis, Semiotics and Content Analysis, etc. (Creswell, 2007; Millward, 1995; Punch, 1998; Rubin & Babbie, 2007). This wide range of possible approaches makes it imperative to tailor the analysis process to the requirements and aims of the specific study. The qualitative analysis undertaken for this study was a content analysis. This concept was considered the most appropriate considering the limited amount of

open-ended data and its pre-structured textual nature, which was already guided through the thematic sections of the questionnaire.

Content analysis is defined as a technique in which open-ended material is classified by assigning verbal categories or themes to the raw material (coding). It is essentially a coding operation, in which coding is "... the process of reducing the data into meaningful segments and assigning names for the segments" (Creswell, 2007, p. 148). The number of occasions in which the assigned codes appear in the material are then counted and interpreted. Content analysis can thus contain both qualitative (interpreting and labelling the data) and quantitative (generating numerical values from the material) elements of analysis (Millward, 1995; Struwig & Stead, 2001).

The content analysis performed within this study included the following steps:

- 1) *Organisation and preparation of data.* In this step the qualitative, textual responses of the different groups were separated from the quantitative material and allocated to an excel-file for qualitative analysis. The raw data of each group were stored separately to ensure that no data could be diffused. The data in the separate groups were organised categorically, meaning they were stored in the thematic section, where they were obtained.
- 2) *Initial reading through the material:* The initial reading through the material served the purpose of obtaining a general sense of the data and developing a first idea of dominant themes and patterns (applicable codes) to further organise and classify the data. In reflecting on the larger thoughts presented in the data, initial categories were formed.
- 3) *Coding the data:* Thereafter the data for each group were coded using as many categories as possible. The codes applied in this process were mainly in vivo terms. In vivo terms are defined as terms which are based in the actual language of the participant (Creswell, 2003). The coding frame was therefore derived inductively (based on the actual content of the material, also called open coding), rather than imposing predetermined classifications on the data.
- 4) *Re-coding the data:* Following up on the open coding, the preliminary codes were repeatedly reviewed and continually revised to generate an exhaustive and exclusive coding frame. According to Millward (1995, p. 289) the selected categories for a coding frame should be exhaustive (that is, all instances can be assigned to a category) and exclusive (that is, all instances should be assigned only to one category). The re-coding process was performed until the analysis produced no further codes and all material had been coded.
- 5) *Second coder review and confirmation:* In keeping with the recommendation of Wilson (1995) and Creswell (2007) a second coder was involved to review the coding frame and check on inconsistencies or possible mislabelling of data. The review was performed on the basis of both the coded and a copy of

the raw data. Disagreements in the coding frame as well as the labelling were then discussed, confirmed and a final, mutually agreed upon document produced.

- 6) *Counting of codes, representation and interpretation:* On the basis of the final document text segments allocated to the individual codes were counted and the coded themes put into a ranking order according to their frequency with which they appeared. The ranked material was represented in table format and thereafter interpreted.

Throughout the entire process all data remained in their original wording and spelling. The use of an advanced computer programme for qualitative analysis (i.e. QSR Nudist VIVO) was considered but rejected due to the manageable format of the qualitative material.

Triangulation approach: The concept of triangulation was used to confirm and cross-validate the findings made in the quantitative and qualitative analysis. In this approach the researcher examines the consistency of findings generated either by different data-collection methods or different data sources in the same method. Triangulation thus strengthens the reliability and internal validity of results, which may lead to more substantiated findings overall (Burns, 2000; Creswell, 2003; Rubin & Babbie, 2007).

3.7 Reliability and validity

Reliability and validity are central concepts in research, as all findings and conclusions drawn depend very much on the quality of the data on which they are based. Reliability and validity in quantitative research can be addressed by clearly defined procedures. However, establishing the perspectives on these issues and its applicability to qualitative inquiries are far from clear cut (Creswell, 2007; Punch, 1998; Rubin & Babbie, 2007).

3.7.1 Reliability

Reliability is defined as the degree of consistency in measurement (impeded by random error), in the sense of both stability over time and internal consistency (Rubin & Babbie, 2007).

The three most common ways advocated by Rubin and Babbie (2007) and Burns (2000) to address reliability are: test-retest reliability (which requires two administrations of the measuring instrument), internal consistency reliability (parallel-forms, split-half, internal consistency) and interrater reliability. Internal consistency assumes that the instrument contains multiple items, each of which is scored and combined with the scores of the other items to produce an overall score. If Likert-type scales are used, it is usually calculated by applying Cronbach's coefficient alpha. The measuring instrument designed for the current study was not constructed to measure a concept as a whole nor on causal potential relationships, but to

report individually on the results of each factor allocated in the overarching framework (refer to Section 2.6.6.5). To arrive at these results some sections were measured with only one scaled item and then additionally supported by the collection of qualitative data. Since a reliable (high) alpha coefficient depends in its basics on the calculation of an overall score and is highly dependent on the number of items underlying this score, coefficient alpha was not a viable measure for this research. Reliability was therefore addressed in the two following ways:

Interrater reliability: Interrater reliability is "... the degree of agreement or consistency between or among raters" (Rubin & Babbie, 2007, p.101). Besides its recognised role in quantitative research it is also a well accepted method to address reliability in qualitative research (Creswell, 2007). Interrater reliability was used in the quantitative analysis (comparing the consistency of ratings between the different stakeholder groups) and in the analysis of qualitative data as referred to in Section 3.6.2.

Triangulation: In this process the data obtained from the different sources (methods and groups) were compared and contrasted to see whether they produced the same findings. In addition, qualitative interpretations were compared with quantitative data to see whether they supported or contradicted each other. Refer to Section 3.6.2.

Both methods demonstrated a generally high consistency of findings, which will be demonstrated in the detailed description and discussion of the results. Apart from addressing reliability the concept of triangulation also served as a validation of findings.

3.7.2 Validity

The term validity refers to the extent to which a measure, measures what it is intended to measure and whether the inferences made are defensible and supported by sound evidence. More specifically, it answers the question: "How well does the instrument measure, what it purports to measure?" (Hammond, 1995, p. 207). The validity question is always answered in a given context, under certain circumstances and for a particular group. Internal validity is concerned with the question of whether the findings faithfully represent the reality which has been studied, while external validity refers to the extent to which the results are generalisable or transferable to other settings (Burns, 2000; Punch, 1998). In ensuring validity four major strategies (employed both by quantitative and qualitative approaches) were followed:

Content validation: This refers to the question of whether the full content of a conceptual description is represented in the measure (Punch, 1998; Rubin & Babbie, 2007). Content validity is generally established on the basis of judgements by the researcher and external experts, as to whether the measuring instrument reflects all aspects of the model selected for answering the research questions. Validation through external judgement is given more credence than its subjective counterpart, so-called face validity (Hammond, 1995).

Content validation through external experts was both performed in the design process of the measuring instruments and the conduction of the pre-tests. Refer to Sections 3.4 and 3.5.

Peer examination: Peer examination was used to further verify results. For the peer examination the preliminary descriptive analysis was handed over to three peers, two staff members of GTZ and the study leader, in order to check interpretations and conclusions made by the researcher. Peer review or debriefing provides an external check of the research and its findings, similar to the spirit of interrater reliability in quantitative research (Creswell 2003).

Detailed description: Above all, following Creswell's (2007, p. 207) recommendations for validation strategies, a detailed description of the research setting, data collection and analysis process as well as its findings is provided enabling the reader to determine the transferability (external validity) and reliability of results.

The five measures applied for validation (that is triangulation and the three strategies discussed above) are frequently used in qualitative research (Creswell, 2007) together with the quantitative approach of content validity. Creswell recommends, engaging in (at least) two procedures, depending on the given context. As this recommendation was surpassed, evidence for the validity of the findings is considered to be provided at an appropriate level.

3.8 Conclusion: Chapter Three

In this chapter the reader was firstly provided with an overview of the major research design. Thereafter the sampling strategies used to collect data as well as the individual measuring instruments were discussed. In conclusion, the chapter provided a detailed report on the collection procedure and the techniques used for data analysis as well as reliability and validity issues pertaining to the current study. The results of the analysis process, combined with a discussion thereof, will be presented in Chapter 4.

Chapter 4: Research Results and Discussion

4.1 Introduction

The previous chapter focused on the research methodology and the measuring instruments used for data collection as well as a discussion on the reliability and the strategies employed for the validation of findings. In this chapter the results of the statistical analysis for each stakeholder group will be reported and discussed on the basis of the set research objectives. The results are presented in terms of quantitative as well as qualitative findings. For reasons of consistency and ease of comparison, findings across all groups will be provided in percentages, despite the fairly small size of the samples of the Accredited Training Provider as well as the CETA, Industry-related Associations and Bodies group. The responses of key informants from the CETA and the other industry-related organisations were deliberately summarised within one group in order to preserve the anonymity of respondents. In the result discussion, findings across the different stakeholder groups are constantly compared and contrasted with each other.

4.2 Research objectives revisited

The subsequent sections outline the results of the surveyed groups. After a short overview of the respondent characteristics, the actual findings will be discussed. The result discussion will be governed by the research objectives that are revisited here for ease of reference.

1. **Learnership satisfaction:** Investigate the general satisfaction level of the different stakeholders with the system.
2. **Appropriateness of the learnership system:** Determine the general appropriateness of the system (i.e. for developing artisans) from the providers' perspective.
3. **Provider learnership motivation:** Investigate the general motivation of the workplace and institutional providers for getting or staying involved in the learnership system.
4. **Provider learnership competence:** Investigate the learnership competence level of the providers (i.e. workplace/institutional providers).
5. **Learnership processes:** Identify the primary process needs of the stakeholders.
6. **Learnership outcome:** Determine the effectiveness of the system with regards to the development of applied competence and future employability or further education opportunities of the learners.
7. **Differences in company groups:** To determine if differences exist with regards to learnership satisfaction and appropriateness, provider learnership motivation and competence as well as learnership outcome, based on learnership involvement and company size.

8. **Differences in learner groups:** To determine if differences exist with regards to learnership outcome based upon employment prior to the learnership (i.e. 18.1/18.2 learners), completion of the learnership, involvement of an employer in the learnership as well as the NQF level of the learnership.
9. **Obstacles observed:** Identify the major obstacles observed.
10. **Proposals for interventions:** Make proposals regarding possible interventions in the system.

Due to time constraints in the telephone interviews with the construction learners the appropriateness of the system and the provider learnership motivation and competence was only measured from the providers' perspective. Accordingly, the learner findings will not cover research objectives 2-4.

4.3 Respondent characteristics

The following section outlines the specific characteristics of each respondent group. Apart from the sample characteristics missing values within the respective stakeholder groups will be disclosed and discussed.

4.3.1 Building and civil companies

From the analysis of the n = 90 responding companies the following respondent characteristics could be established:

- **Company size:** The large majority of respondents in the building and civil company sample were small companies with 1-49 employees (63%), followed by medium companies with 50-150 employees (22%). Accordingly, 85% of the responding companies belonged to the SMME sector. Only 15% of the responding companies had more than a 150 employees.
- **CETA registration and involvement in learnerships:** While 54% of the respondents indicated to be registered with the CETA only the minority (46%) stated to be actively involved in learnership training. A finding, which confirms the currently low involvement of the companies in training.
- **Training rates and learner profiles:** The companies involved in learnerships on average were training 6 learners (ranging from a minimum of 1 learner to a maximum of 148 learners). The majority of companies were training 18.1 learners. 62% of the respondents indicated to have zero 18.2 learners, which reflects the low involvement of companies in providing 18.2 learnerships. Unsurprisingly for the industry, 62% of the respondents indicated that they have no female learners. The ethnic profile of the learners was spread between African learners ($\bar{x} = 11$), Coloured ($\bar{x} = 10$) and White learners ($\bar{x} = 7$). Indian/Asian learners were the minority with only 3 learners overall. In terms of age the learners mainly belonged to the age groups 15-24 ($\bar{x} = 19$) and 25-34 ($\bar{x} = 12$). The minority of learners were in the age group over 35 ($\bar{x} = 5$). This result is encouraging, as it reflects that the learnership is reaching younger learners. As expected, given the high physical demands of construction work, performance against disability targets was poor with only one respondent indicating that a disabled learner was being trained.

- **Mentors:** The majority of respondents (69%) did not have an especially assigned mentor to train learners in the company. Only 17% responded that they had specific mentors and the remaining 14% did the mentoring themselves.
- **Business establishment:** 61% of the companies had been established in the years since 1992 and later, with the majority being fairly well established and indicating that they had been in operation for more than 3 years (95%).
- **Responding individuals:** The responding individuals were predominantly the executive/owner of the companies (69%). 16% indicated that they were a staff member and almost an equal proportion (15%) indicated that they were the HR Manager.

The respondent characteristics particularly regarding company-size and involvement in learnerships demonstrate a high consistency with the general industry characteristics described previously in this research, i.e. a dominance of small, micro to medium sized businesses (i.e. SMME) comprising between 80% and 97% of the sector (refer to 2.4.2.1) and low involvement in learnerships (1.2). The majority of opinions reflected in the results were directly obtained from the executives or owners of the individual companies, and thus from the main decision-makers in terms of learnership involvement. Accordingly, the results of the research are based on a meaningful and representative cross-section of stakeholder opinions from the building and civil industry of the Western Cape. The following findings must be considered in this light.

Missing values: Missing values did not present a problem in the analysis of this group as all questionnaires were fully completed by the respondents. In case respondents did not know the response, they indicated don't know/no response, which will be discussed in the findings.

4.3.2 Construction learners

The demographic profile of the learner sample as reflected in Table 4.1 is highly consistent with the total population of learners (i.e. learnership completion in 2006 as given in the overall list by the CETA).

As highlighted in the table the sample only showed two major differences in terms of characteristics. The first difference is due to the fact that within the ethnic groups a larger proportion of Africans as compared to the coloured group could not be actually reached for interviews (i.e. only voicemail or invalid numbers). For 40% of the Africans only a voicemail could be reached as compared to 32% among the coloured group of learners. 'No longer valid numbers' occurred for 22% of the African learners, while this was only the case for 9% of the coloured learners. The second difference may have occurred as among 18.2 learners there was a higher number of learners, which did not have a telephone number or where the phone number was no longer valid. A large number of 18.2 learners could thus not be reached for an interview.

The two remaining characteristics which seem to be worth highlighting are age and NQF level counts. The vast majority of learners, who have completed their learnership in 2006 (refer to original list) is over 25 years (89%) with a large proportion of learners being 35 years and older (47%). Only 11% of the learners are in the age group 15-24 years. Given the current state of the construction industry (i.e. an already ageing workforce; refer to Section 2.4.2.3) and the state of the South African labour market in terms of youth unemployment, which is sought to be primarily tackled by the learnership system, the current training ratios in terms of age are certainly not satisfying yet and need to be addressed.

TABLE 4.1
LEARNER RESPONDENT CHARACTERISTICS AS COMPARED TO TOTAL POPULATION – LEARNER RESULTS

Characteristic:		Sample (N = 135)	Original list (N = 766)
Gender:	Male	79% (n = 107)	71% (n = 545)
	Female	21% (n = 28)	29% (n = 221)
	Total	100%	100%
Age:	15-24	10% (n = 14)	11% (n = 87)
	25-34	37% (n = 50)	42% (n = 318)
	>= 35	53% (n = 71)	47% (n = 361)
	Total	100%	100%
Ethnic group:	Coloured	79% (n = 106)	62% (n = 472)
	African	18% (n = 24)	36% (n = 275)
	White	1% (n = 3)	2% (n = 15)
	Indian/Asian	2% (n = 2)	1% (n = 4)
	Total	100%	100%
Learner type	18.1	56% (n = 75)	35% (n = 271)
	18.2	44% (n = 60)	65% (n = 495)
	Total	100%	100%
NQF level	NQF 1	59% (n = 80)	52% (n = 402)
	NQF 2	19% (n = 26)	20% (n = 152)
	NQF 3	20% (n = 27)	26% (n = 199)
	NQF 4	1% (n = 1)	1% (n = 6)
	NQF 5	1% (n = 1)	1% (n = 7)
	Total	100%	100%

Furthermore, the majority of learners were trained at NQF level 1 (52%). Only 26% of the learners were registered as NQF 3 and 1% as NQF 4 learners. Since the industry currently experiences a major artisan backlog (NQF 3-4) training ratios in terms of higher NQF levels will have to be increased, if the system is to meet industry needs.

Completion/non-completion: Out of the 135 respondents 18% of the learners had not completed their learnership. The main reason for not completing the learnership was the fact that the CETA had not paid the formal training provider (i.e. financial problems), and the training could thus not be completed. Only 2 respondents stated other reasons (i.e. pregnancy and own resignation). Although responses show that the

majority (82%) had completed the learnership the remainder is a matter of concern given the aforementioned reason for the 'non completion' of learners.

Year of completion: As it was to be expected from the list received by the CETA (selection requirement: completion in 2006), the majority of the respondents who had completed their learnership, finished in 2006 (55%). 32% of the respondents indicated to have completed the learnership in 2005 and 9% responded that they had completed in the years between 2004 and 2002, with the (6%) thereof qualifying in 2004. The remaining 5% were about to complete their learnership in 2007. This result in part is unsurprising as the inherent flexibility of the system in terms of completion (i.e. not time-based but based on individual assessments; refer to Section 2.3.1.1) makes an exact indication of the actual completion date very difficult for the CETA. Accordingly, the completion date as provided in the list was calculated on the average time needed per learner for completion and was thus expected not to be valid for all cases. Nevertheless, the accurate dates should have been captured for the learners completing prior to 2006. In connection with the large number of learners, who could not be reached due to wrong numbers, this finding may point to the need of updating the learner databases more regularly.

Company-size: Unsurprisingly, in accordance with the commonly held view that larger companies have more capacity to train, the majority of learners (41%) were employed by large companies with more than a 150 employees (41%). 17% were trained by small companies (1-49 employees) and 14% by medium companies (50-150 employees). Highly unexpected, 28% of the learners stated that they had no employer and were only trained by a formal training provider, a result which will certainly need further investigation by the CETA.

Missing values: Missing values did not represent a problem in this group as only 3 respondents, who had not completed the learnership, did not respond to the questionnaire. They were thus only captured in the statistical data. The other learners responded and selected don't know/no response for those answers they weren't able to respond. This is reflected in the study's findings.

4.3.3 Accredited Training Providers

The majority of the responding providers (n = 14) within the sample were operating in the Western Cape (71%). Only those respondents, who wanted to take part in the survey by own choice, were from Gauteng (n = 3) and the Eastern Cape (n = 1). All of the interviewed providers were well established and highly experienced in learnership training as they had been training construction learners for 6-7 years (62%) or 4-5 years (38%).

The sample represents the opinions of training providers, which have almost all been part of the learnership system from its beginning, and have thus acquired a considerable amount of experience with the

implementation of the system. The opinions reflected in the findings stem both from decision makers (e.g. Head of department, Managing director, Regional Manager, etc.) within the training institutions as well as individuals, who actually deliver the training (e.g. training instructors, training manager). Viewed in this light the following results should be considered as a highly representative cross-section of provider opinions.

Training rates and learner profiles: The training providers on average were training 18 18.1 learners and 48 18.2 learners. This result is encouraging as it reflects that a fairly large amount of 18.2 training is occurring on the provider side. However, in connection with the building and civil data (refer to Section 4.3.1) it clearly shows that this training is largely taking place without employer participation. Given the fact that the involvement of an employer significantly influences the employability of the learners (refer to Section 4.11) this certainly needs to be monitored by the CETA. In terms of gender, the distribution of training generally favoured men, but demonstrated better differentiated gender ratios for 18.2 learners, with 28 male as compared to 21 female learners. African learners were of the majority (60%) followed by Coloured learners (32%). White learners were in the minority with only 7%. No Indian/Asian learners were reported. In terms of age the learners mainly belonged to the age groups 25-34 (44%) and 15-24 (31%). The over 35 age group constituted 25% of the learners. Once again as expected, performance against disability targets was poor with only 5 disabled learners out of 1044 learners reported overall. Quite remarkably, some providers had difficulties providing the requested data on training rates and learner profiles as they didn't have a readily available database. This may be another issue, which needs to be addressed.

Missing values: Missing values did not represent a problem in the analysis of this group as all providers fully completed the entire questionnaire.

4.3.4 CETA, Industry-related Associations and Bodies

All key informants represented in the sample (n = 10) were assuming leading and responsible positions within the institutions they were representing (e.g. Secretary General, Regional Manager, Program Manager, Group skills facilitator, Chief Operations Officer, etc.). The results provided below must thus be considered as perceptions of influential opinion-makers within the industry.

Missing values: Missing values also did not represent a problem in the analysis of this group. All informants completed the questionnaire entirely.

4.4 Learnership satisfaction

One of the first and central research questions to be answered was the general learnership satisfaction, which is also referred to as outcome 1 in the learnership evaluation framework (refer to Section 2.6.6.2). Respondents were asked to indicate how satisfied they were in general with the newly established learnership system.

4.4.1 Building and civil companies

The building and civil companies' results in this section demonstrated a considerably high dissatisfaction with the current learnership system. As reflected in Table 4.2, 53% of the respondents and thus the majority indicated that they were not very satisfied or not at all satisfied. Among those expressing satisfaction with the system, the majority (18%) responded satisfied.

TABLE 4.2
LEARNERSHIP SATISFACTION – BUILDING AND CIVIL COMPANIES' RESULTS

Learnership satisfaction						
Rating	extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied	don't know/ no response
Percentage (n=Count)	3% (n = 3)	4% (n = 4)	18% (n = 16)	30% (n = 27)	23% (n = 21)	21% (n = 19)

This result demonstrates that even among the better rating respondents most respondents were only satisfied. Interestingly, a fairly high number of respondents (21%) selected the answer don't know/no response instead of indicating their actual satisfaction. While there can only be speculations on the individual reasons for this choice, there seems to be a strong indication, firstly in connection with further findings of this study (refer to the qualitative findings in this section as well as Section 4.8.1) and secondly with findings from a previous study (the National Skills Survey 2003), that this high 'no response' is the result of not being able to comment on the system due to a high lack of awareness and not having experienced the system personally. The National Skills Survey (NSS) on VSME (very small and micro enterprises), whose findings were reported by McGrath and Martins (2005) found broadly similar respondent percentages of 'no comment' in connection with learnership services offered by the SETAs. According to their findings at least one out of four respondents (25%) was not able to comment on the majority of services due to not having received such services themselves (p. 48). The percentage of respondents, who indicated 'do not know about them' went up to a peak of 44%, when being asked about the process for levy grant claims (refer to Section 2.4.2.1). The NSS on general enterprise training practices in small, medium and large enterprises, which was reported by Paterson & du Toit (2005) (as cited in McGrath & Paterson, 2007, p. 308) revealed that 25% of the responding companies had not made grant claims due to 'not knowing about them'. Hence, a high lack of awareness and not having received such services was the most common aggregate reason for non response among the NSS survey participants. Those, who commented

on the offered services tended to be negative, with at least 30% of respondents being not at all satisfied (McGrath & Paterson, 2007, p. 348). Overall, Table 4.2 equally paints a critical picture in terms of employer satisfaction with the current learnership system. The reasons for dissatisfaction or satisfaction of respondents were further analysed and provided the following insights:

Reasons for dissatisfaction: Respondents had the opportunity to state three major reasons for their rating choice in an open text section. The qualitative analysis of this section revealed a number of reasons for the current dissatisfaction (128 total comments from dissatisfied respondents). For the purpose of analysis dissatisfied respondents were regarded as those respondents, who indicated being 'not very satisfied' or 'not at all satisfied'. The most prominent themes emerging from these comments were (1) the availability of/access to information on the learnership system (23%), (2) CETA services and processes, i.e. support, administration, formal procedures/bureaucracy, access to funding (20%), (3) availability of industry-suitable learnerships with adequate learnership content (14%) and (4) the quality of the learnership outcome (11%). 6 respondents (1%) expressed a clear preference of the former apprenticeship system, which in their opinion produced better results.

The first finding, that the processes in connection with the CETA are perceived as unsatisfactory and thus regarded as a general constraint is consistent with two previous studies: Firstly, the NSS 2003 on VSME referred to above which similarly reported low levels of satisfaction with SETA services (McGrath & Paterson, 2007), and secondly the 2007 report on the South African Skills Crisis (CDE, 2007). From 40 surveyed companies out of different sectors, 19 companies were negative about SETAs, mainly because they found dealing with SETAs to be cumbersome. The comments on SETAs were highly similar to the comments found in this study and indicated almost exactly the same concerns. One illustrative comment in this context was: "Rarely adequate, poorly managed, too idealistic, and hideously bureaucratic" (CDE, 2007, p. 10). Accordingly, the current dissatisfaction with the CETA does not seem to be solely a particular critique on the CETA, but on the working structures and procedures of the SETAs in general. Nevertheless, a recent study on training, which included 328 leading organisations across 22 SETAs revealed a relatively high satisfaction with SETAs (Meyer & Bushney, 2007). According to this study 54% are satisfied with the service they received from their SETAs (p. 23). The positive quantitative result though again was contradicted by qualitative comments, which highly resembled the current study. Overall, the results of the current study thus seem to be consistent with a more general perception on the SETAs.

The second finding, that companies criticised the availability of industry-suitable learnerships brings forward evidence to the theoretical assumption that the learnership system may face difficulties in addressing the diverse skills and training needs of the industry (refer to Section 2.4.2.1). The remaining comments of the current study spread fairly equal among themes such as the quality of formal training and learning material, the screening and selection process of candidates, the duration of training, lack of resources to provide learnership training, the complexity of the system, communication between stakeholders, the improper implementation, the unavailability of exit strategies for learners after the learnership and other singular

comments, which could not be categorised into broader themes. Exemplary comments within the identified four main reasons for dissatisfaction were:

Availability of/access to information on the learnership system:

- “We have very little info as to the modus operandi of this system.”
- “There is not enough exposure as to what learnerships are available.”
- “Lack of sufficient documentation and guidelines regarding the various learnerships.”
- “I am not aware of any great drive to train new artisans.”
- “I know nothing about learnerships.”
- “Exceptionally poor communication.”

CETA services and processes:

- **Support:** “Service from CETA is basically non existent.”; “Communication from CETA lacking.”
- **Administration:** “Poor CETA administration.”; “CETA delays processing”; “Every WSP year there are changes and delays to the CETA templates”; “Very disorganised - no one knows what is going on.”
- **Formal procedures/bureaucracy:** “Bureaucratic rompslomp”; “Too much paperwork and forms and returns etc.”; “If a company does not have a dedicated HR department the process is cumbersome”; “too much paper work and not enough support for small companies to manage the admin”; “Its all about paperwork, not training.”
- **Funding:** “Our CETA is bankrupt”; “I am under the impression that it’s been discontinued because the CETA does not have funds?”; “CETA funding a major problem. We make our payments of SDL and get nothing back. Just seems to cost us more and more and then the MBA has to step in to fund training”; “We as a company fund our own training.”

Availability of industry-suitable learnerships with adequate learnership content:

- “Our business is not strictly construction - so current system may cater for majority of its stakeholders but we are of a minority.”
- “The construction industry learnerships are not applicable to our trades.”
- “Coursework not well developed and covers our industry too broadly.”
- “Does not address administrative skills that are also necessary in the industry (office).”

The quality of the learnership outcome:

- “The quality of artisans exiting the learnership is not what it should be.”
- “Lack of trade knowledge.”
- “Quality of artisan on completion of training is poor, low work ethic and limited abilities.”

Reasons for satisfaction: The minority of respondents, who were satisfied, expressed the following 3 major reasons for their satisfaction (28 comments in total): The opportunity to enhance skills levels and

empower employees was the primary reason for being satisfied as indicated by the majority of comments (54%). This was followed by almost a quarter of the comments, referring to the practical applicability of the learnership system (21%). The quality and structure of the training was the third and final major reason given within this context (18%). The 2 remaining comments positively noted that the learnerships gave them the opportunity for company-specific training and that there were funding resources available. Exemplary comments from the satisfied respondents were:

- **Opportunity of skills enhancement and empowerment:** “Great opportunity to up-skill staff”; “Skilled competent staff - quality workmanship and better production”. “Giving employees the opportunity to gain a qualification previously not available to them”.
- **Practical applicability:** “We like the idea that the training courses are hands on”; “Once the training courses are provided they are tested not only in the class but on site as well”; “Experience based and gained in employment”; “Practical applicability”.
- **Quality and structure of training:** “Resources have proper theoretical background; “Content of learning better than that of University of Technology”; “New entrants to the construction industry don't have to "sink or swim" any more”. “Well organised.”

Reasons for no response/don't know: The 10 respondents, who did comment on their non response, indicated that they did not respond due to not being informed/aware and further not having had any personal exposure to the system. Exemplary comments were: “I am not fully aware of the learnership system”; “not informed”; “I have not been introduced to it yet”; “have had no exposure to the system”. This finding strongly supports the aforementioned assumption that the fairly high non response (21%) in terms of learnership satisfaction is predominantly the result of not being informed or not yet involved in the system.

4.4.2 Construction Learners

In contrast to the previous company results the learner group demonstrated satisfaction (89%) with the learnership system (refer to Table 4.3). Only 11% selected the negative rating choices given on the intensity scale.

TABLE 4.3
LEARNERSHIP SATISFACTION – CONSTRUCTION LEARNER RESULTS

	Learnership satisfaction					
Rating	extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied	don't know/no response
Percentage (n=Count)	20% (n = 26)	30% (n = 39)	39% (n = 51)	10% (n = 14)	1% (n = 2)	0% (n = 0)

Reasons for satisfaction: Looking into the actual reasons of the learners for being satisfied it appears that the majority of learners appreciated the opportunity to enhance their skills and general knowledge in the construction field. Of the comments 55% were referring to this issue as their primary reason for being

satisfied and some respondents indicated that they would like to enhance their skills even further. The second major reason stated was the quality of the formal training (33%). 9 respondents appreciated the learnership in general as a great opportunity by saying that the learnership e.g. “was a huge present”; it was a “great honour to be granted that opportunity” and a “good way to go”, etc. The two remaining comments said that they were satisfied because of being ‘empowered as a woman’ and that the ‘duration of the learnership was 2 years’. Exemplary comments within the two main identified reasons were:

Opportunity to enhance skills and general knowledge:

- “Learned more about construction than ever before.”
- “Only through learnership got to know profession and what it includes.”
- “Learned in theory, what I can directly put into practice.”
- “Would like to gain further knowledge in that direction.”

Quality of formal training:

- “Manner in which they presented it was excellent.”
- “Not enough time, but thoroughly enjoyed and impressed with facilitators.”
- “Subjects very professionally brought forward.”
- “If we needed advise, it was always given.”

Reasons for dissatisfaction: Among those learners who had not completed the learnership, the main reason for not being satisfied with the learnership was the ‘non completion due to financial problems with the CETA’ (26%). Those, who had completed their learnership, but were nevertheless ‘dissatisfied’, revealed another major reason for dissatisfaction. 28% of the comments referred to ‘not having received their certificates’ from the CETA with some learners complaining that they had been waiting for the certificate for over 6 months. Without the certificate as one respondent said “nothing could be done” since “employers require the proof of qualification”. Both reasons point to two serious areas of inefficiencies within the CETA, firstly finances and secondly quality assurance of learner achievements (i.e. certification), which certainly need to be urgently addressed as both processes are primary functions to be performed by the CETA or CETQA (refer to Sections 2.2.2.1 and 2.2.2.2). 9 comments demonstrated dissatisfaction with the ‘quality of training or the learning material’ and gave comments such as: “people/instructors are not qualified, low standard of expertise, can't learn from them”; “mentors where not knowledgeable, mentored the mentors”; “course material is wrong and not working for the business”. 3 comments referred negatively to the ‘sequence and duration of training’, e.g. “periods between classes too long”; “only 10 days of training at institute”; “course took too long, twice a year over three years.” This finding points to the preference of learners experiencing continuous training with a balanced split between formal and practical training which was confirmed by further results (refer to Sections 4.9.2 open comments on duration and 4.10.2). Similarly to the positive comments, four respondents indicated that they would like to enhance their skills even further, but did not know how to proceed. Two respondents hadn't received practical training and another two were experiencing problems with employment after completion. Some respondents (2 comments) were

negative about the 'selection process' as they felt that not all learners been selected properly, and thus "didn't fit in the class". One would have appreciated more support from his employer.

In general, the learners are highly satisfied with the system. As one may argue, this finding is unsurprising given the fact that the learners, as compared to the providers, can only benefit from the training. Nevertheless, the findings clearly demonstrate that the learnership system does produce 'satisfying' results for the target group, which is an encouraging and positive result. Learners generally appreciate the opportunity to enhance their skills and would like to go further in their training, but don't know how. The main areas of dissatisfaction are currently inefficiencies in the financing of training, which has led to 'non completion' of learners and the delay in issuing of certificates by the CETQA.

4.4.3 Accredited Training Providers

Like the workplace providers (i.e. building and civil companies), the formal training providers demonstrated a high dissatisfaction with the learnership system. The majority of respondents (64%) as reflected in Table 4.4 indicated to be not very satisfied or not at all satisfied. Consistent with the building and civil company results, the majority of those respondents, who gave better ratings, were only satisfied (21%).

TABLE 4.4
LEARNERSHIP SATISFACTION – ACCREDITED TRAINING PROVIDER RESULTS

Learnership satisfaction						
Rating	extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied	don't know/ no response
Percentage (n=Count)	7% (n = 1)	7% (n = 1)	21% (n = 3)	50% (n = 7)	14% (n = 2)	0% (n = 0)

Reasons for dissatisfaction: The providers' major reasons for being dissatisfied with the system were quite diverse and covered a range of topics (20 comments in total). Overall, these were found to be fairly consistent with the building and civil company results:

- **CETA services and processes, and thereof particularly 'funding' and 'formal procedures/bureaucracy'** were one main reason for dissatisfaction (4 comments) for e.g.: "We are currently owed in the region of R250000 work completed, but invoices not honoured by CETA"; "too much paperwork keeps facilitator at desk".
- **The 'Suitability of the learnership content'** included the following statements (4 comments) for e.g.: "Learnerships developed without industry support"; "Unit standards NQF 2-4 are outdated, SAQA not functioning".
- **The 'availability/lack of information on the system'** was criticised as follows (3 comments) for e.g.: "Companies were afraid to participate because of lack of knowledge" and there was a "Lack of

information at development stage”, as there was “not enough support from CETA regarding rolling out of learnerships”.

The remaining comments expressed critique in terms of the ‘selection process of learners’ (2 comments), the ‘low participation/involvement from employers’ (2 comments), the ‘quality of formal training and learning material (i.e. not being standardised)’ (2 comments) and the ‘quality of the learnership outcome’ (1 comment). One respondent criticised that “little practical training was taking place at the employer” and another respondent said that “the appointment of ESDLE to act as lead employers has been a complete failure”.

Reasons for satisfaction: The main reasons for being satisfied with the learnership (10 comments in total) are the holistic/integrated approach of the training (5 comments) e.g.: “Training more holistic”, “Training not time, but outcomes-based”; “Integration of workplace and unit standards”), which in the opinion of the respondents does provide for a better ‘learnership outcome’ (3 comments: “Better product in the end”; “Learner learns more than in apprenticeship”; “Learner benefits more”) and further “gives the opportunity for everyone in the system for official recognition/certification”, since “RPL caters for everyone” (2 comments).

In summary, the accredited training providers in general are dissatisfied how the system currently works. This is mainly due to CETA related processes in terms of funding and formal procedures. The comments in terms of funding verify the findings of the learner group, as to which a number of learners could not complete their learnership due to financial problems between the CETA and the provider. Accordingly, the financial woes of the CETA (refer to Section 2.2.3) have affected the 2006 training year and further work is needed in this regard. The actual learnership content (which as perceived as no longer in line with industry skills requirements) is also a major concern, a finding which is consistent with the perception of the building and civil companies. In combination the results thus provide evidence for the argument of Vorwerk (2005a), that the NQF does not accomplish an adequate systemic link to the world of work (refer to Section 2.5.3) and supports the currently proposed NQF revision of implementing a QCTO that will consist of Communities of Expert Practice (CEP) for developing qualifications (refer to Section 2.5.5). Further, (consistent with the building and civil companies) the availability/lack of information on the system is regarded as a problem with regards to employer participation.

4.4.4 CETA, Industry-related Associations and Bodies

The results of the representative industry organisations strongly mirrored the findings of the provider groups. 60% of the key informants (refer to Table 4.5) as compared to 53% of the building and civil companies (refer to Section 4.4.1) and 64% of the accredited training providers (refer to Section 4.4.3) stated that they were not very or not at all satisfied.

TABLE 4.5
LEARNERSHIP SATISFACTION – CETA, INDUSTRY ASSOCIATIONS/BODIES RESULTS

Learnership satisfaction						
Rating	extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied	don't know/ no response
Percentage (n=Count)	0% (n = 0)	30% (n = 3)	10% (n = 1)	50% (n = 5)	10% (n = 1)	0% (n = 0)

Reasons for dissatisfaction: The reasons given for the current dissatisfaction spread fairly even across the following topics:

- **CETA services and processes (support, administration) (4 comments):** “Don’t get certificates back”; mechanism how it works to slow”; “registration is not taking place”; “don’t respond in time to needs.”
- **No/little practical training (3 comments):** “Learnerships have created false expectations”, “practical training is not taking place”; “difficulty obtaining experiential training”; “experiential training not on par”
- **Quality of formal training (2 comments):** “Training delivery system on campus not on par”; “Training providers see it as money making issue.”
- **Selection of learners (2 comments):** “Profile of learners does not always fit”; “Quality of some of the students not what is expected.”

One respondent referred to the quality of the learnership outcome by saying that “the level of competency of particularly building trades learners has dropped” and another referred to the availability of suitable learnerships as follows: “Some learnerships for needed trades not in place.” Also one respondent said that he was dissatisfied, since an “effective system (i.e. the previous apprenticeship) had been in place”.

Reasons for satisfaction: The prominent reason for being satisfied with the system was its general conceptual structure, which in the opinion of the respondents provided two main benefits: Firstly, a more holistic training, through the combination of theory and practice and secondly a greater flexibility for the learner by being competency based. This in general “promotes greater access to learning” and “enhances the apprenticeship”. Other positive comments were: “Ensures holistic development of construction worker as addresses both theory and practical”; “Flexibility of the system”; “potential for workers to define their own learning and learn at own pace”; “The learnership system is very flexible and if applied correctly and according to the SD Act it will provide maximum results.”

What is interesting to note in this context is that only this group of respondents and the accredited provider group (refer to 4.4.3 reasons for satisfaction) mention the actual benefits of the system as aspired by the NQF (e.g. greater access, flexibility, outcomes-based). This supports the assumption that the system and its benefits have not yet been understood by the broad majority and a lot more needs to be done in bringing across the ‘real benefits’ to the actually intended users of the new system.

4.4.5 Summary: Learnership satisfaction

Summarising the aforementioned findings as an answer to the first research objective the current satisfaction with the learnership system among the providers and key informants is very low. In addition, almost a quarter (21%) of the workplace providers (i.e. building and civil companies) is not aware of or informed on the system to such an extent, that it can actually express satisfaction/dissatisfaction with the system. As reflected in Table 4.6 only the construction learners, and thus the primary beneficiaries of the learnership, currently show a considerable satisfaction with the system. Research objective 1 is achieved.

TABLE 4.6
LEARNERSHIP SATISFACTION – ACROSS ALL GROUPS

Respondent group	extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied	don't know/ no response
Building/Civil companies	3% (n = 3)	4% (n = 4)	18% (n = 16)	30% (n = 27)	23% (n = 21)	21% (n = 19)
Construction Learners	20% (n = 26)	30% (n = 39)	39% (n = 51)	10% (n = 14)	1% (n = 2)	0% (n = 0)
Accredited Training Providers	7% (n = 1)	7% (n = 1)	21% (n = 3)	50% (n = 7)	14% (n = 2)	0% (n = 0)
CETA, Industry-related Associations/Bodies	0% (n = 0)	30% (n = 3)	10% (n = 1)	50% (n = 5)	10% (n = 1)	0% (n = 0)

4.5 Appropriateness of the learnership system

The second research objective was concerned with the general appropriateness of the learnership system, and thus asked the providers and key informants, whether they considered the system appropriate for developing artisans for the industry.

4.5.1 Building and civil companies

As indicated in Table 4.7 the current considerable dissatisfaction of the building and civil companies with the system does not negatively affect the respondents' general perception on the appropriateness of the system. The table displays an inverted picture as compared to learnership satisfaction with a strong shift of responses towards the positive end of the intensity scale.

TABLE 4.7
APPROPRIATENESS OF THE LEARNERSHIP SYSTEM – BUILDING AND CIVIL COMPANIES' RESULTS

Appropriateness of the learnership system						
Rating	definitely	probably	fairly likely	probably not	definitely not	don't know/ no response
Percentage (n=Count)	51% (n = 46)	21% (n = 19)	14% (n = 13)	4% (n = 4)	6% (n = 5)	3% (n = 3)

The majority of respondents (51%) indicated that they definitely considered the learnership system as an appropriate means to develop artisans for the construction industry. Another 35% indicated that they regarded the system as probably or fairly likely to be appropriate. Compared to the aforementioned findings in terms of learnership satisfaction (refer to Table 4.6) only a small percentage (10%) chose the two most negative ratings. Surprisingly, the percentage which didn't know or decided to make no response in this section decreased from 21% to 3%. This suggests that even those, who could not comment on their overall satisfaction with the system, did have a clear opinion on the general appropriateness of the system, and this opinion mostly tended to be positive.

Reasons for considering the system appropriate: Respondents expressed the reasons for their choice in an open text section, which was headed with the simple question: Why? The dominant reasons, which emerged from the qualitative analysis of the total 67 open comments given by participants in this section, were found to be fairly consistent with the reasons stated by satisfied/dissatisfied respondents. The majority of respondents (81%), who were positive indicated (1) the opportunity of skills enhancement and empowerment (37%) as the supporting reason for their choice. Accordingly, this was the primary reason for considering the system appropriate. The 'practical applicability of the training' (2) rated second with 20% of the comments, directly followed by (3) the 'structure of the training (combining theory and practice)' (16%). Three respondents stated there was 'no other option available'. Two respondents indicated the quality of the outcome as their primary reason. The remaining comments considered the system appropriate under the proviso, that information on the system was available, the learnership content was industry-related, the quality of formal training and support by the company was given, and lastly the selection process of the learner was done properly. Comments were spread fairly equal among these provisos.

Opportunity of skills enhancement and empowerment:

- "This will ensure better skills for the relevant work"
- "In our business we need trained and highly skilled staff to satisfy our clients. In-house training is not always enough"
- For the person who did not have the opportunity to study further it gives an opportunity to further his/her career."
- "Often employees are not aware of how to obtain these qualifications or how to further their career in construction and through learnerships via their employers this has now become so much easier."

Practical applicability of training:

- “Hands on training while employed.”
- “In times where skills are seriously lacking, hands on training is a sure way to skill the labourers.”
- “It is practical and ensures that candidates can apply the knowledge.”

Structured training (combining theory and practice):

- “On the job training to supplement formal classes gives artisans practical experience and familiarises artisans with products and procedures in the real world.”
- “It is vital to have a structured course for each and every trade forming the basis and setting a required standard for learners to be measured before being able to join the industry.”
- “The best solution for providing the combination of practical & theoretical training required for the level of skills we need to develop.”

Reasons for considering the system inappropriate: The respondents, who doubted the appropriateness of the system, indicated four main reasons for their opinion:

- **Quality of learnership outcome** (Examples: “It has failed to develop any properly trained artisans”; “there is no point in developing artisans and they cannot use the skills with efficacy.”)
- **Preference to apprenticeship system** (Examples: “Old system of artisan training was more effective”; “If one compares the skills of a learner to that of an apprenticed artisan up to 1994 - the apprenticed artisan is a better employee.”)
- **Unsuitability of learners** (Examples: “Many candidates have not received a satisfactory school education”; “Because learners are unlikely to meet the academic criteria to fulfil their aspirations.”)
- **Preference of in-house, short-term training** (Examples: “A selected worker with 10 yrs skills should be trained in-house to a customised curriculum”; “I would like to send some of our employees on the learnership, but I don’t want to loose too much productivity time.”)

The 12 comments underlying these dimensions did not reveal any primary reason considering the system as inappropriate, since all themes were covered by an equal number of comments. One comment, which could not be allocated to the above dimensions, considered the overall training period as too short to develop artisans.

4.5.2 Accredited Training Providers

The accredited training providers as well do regard the system itself as an appropriate means to develop artisans for the industry. Contrary to the responses on learnership satisfaction, a large majority of participants (72%) responded positively with regards to the appropriateness of the system (refer to Table

4.8). 57% indicated the system was definitely appropriate for developing artisans. Accordingly, the accredited training providers additionally confirm the assumption, that the expressed critique on the system is not fundamental but rather related to issues of practical implementation. This is further corroborated by the reasons given for considering the system appropriate or inappropriate.

TABLE 4.8
APPROPRIATENESS OF THE LEARNERSHIP SYSTEM – ACCREDITED TRAINING PROVIDER RESULTS

Appropriateness of the learnership system						
Rating	definitely	probably	fairly likely	probably not	definitely not	don't know/ no response
Percentage (n=Count)	57% (n = 8)	7% (n = 1)	14% (n = 2)	14% (n = 2)	7% (n = 1)	0% (n = 0)

Reasons for considering the system appropriate: The structured training (combining theory and practice) was regarded as the main reason for viewing the system as appropriate (6 comments) for e.g.: “Good combination of theoretical and practical training”; “Proper mix of class room and practical training”.

Reasons for considering the system inappropriate: The four major reasons (4 comments) for considering the system inappropriate were the “low interaction of role-players and the setup of processes”, the duration of the training, the fact that there is “no productivity/performance assessment as was case with BITB and Trade tests” and further that the “MBA is refusing to employ them”.

The main reason for the majority of training providers to consider the system appropriate is the general structure of the training, which combines theory and practice, and thus exposes the learner to holistic learning. Reasons for considering the system inappropriate were primarily related to issues of practical implementation and the setup of processes.

4.5.3 CETA, Industry-related Associations and Bodies

Once again the key informants shared the opinion of the providers when it came to the general appropriateness of the system. Here 50% of the key informants as compared to 51% of the building and civil companies (refer to Section 4.5.1) and 57% of the accredited training providers (refer to Section 4.5.2) definitely considered the system as appropriate. Only two out of ten respondents as reflected in Table 4.9 considered the system as probably not or definitely not appropriate. Thus, in line with the other respondent groups the key informants in general regard the system as appropriate. Given their current experiences with the system though, they put provisos to this perception as it is reflected by the individual reasons for considering the system appropriate or inappropriate.

TABLE 4.9
APPROPRIATENESS OF THE LEARNERSHIP SYSTEM – CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Appropriateness of the learnership system						
Rating	definitely	probably	fairly likely	probably not	definitely not	don't know/ no response
Percentage (n=Count)	50% (n = 5)	30% (n = 3)	0% (n = 0)	10% (n = 1)	10% (n = 1)	0% (n = 0)

Reasons for considering the system appropriate: Equal to the other providers, key informants in principal appreciated the ‘structure of the training, combining theory and practice’ by stating that it e.g. “Gives a good integration of theoretical and practical learning in real time, more applicable learning”; “Artisans in particular need besides thorough training also practical experience. The programmes provide these basics.” This general appreciation was given under the proviso of correct implementation: “Provides an ideal avenue, provided it is correctly structured; “Implemented correctly from A-Z it should work”. As one respondent clearly articulated the main opinion among respondents: “In principal it should work.”

Reasons for considering the system inappropriate: The respondents, who considered the system inappropriate all stated concerns of practical implementation: “High need for RPL, but doesn't get of the ground”; “Lot more practical training needed, selection process by governmental offices not properly done.” One respondent again said that an “effective system had been in place.” This comment demonstrates that the new system still faces reluctance from some representative industry organisations.

4.5.4 Summary: Appropriateness of the learnership system

In summary of the aforementioned findings, there seems to be strong evidence that the current criticism on the learnership system, which is expressed in a considerable dissatisfaction among the majority of the providers and key informants (refer to Section 4.4), is not fundamental but rather concerned with issues of practical implementation and the setup of processes, most importantly the availability of information on the system. The findings in this section strongly match the criticisms on the learnership system in the theoretical framework discussed in sections 2.5.3 and 2.5.4. As displayed in Table 4.10 the majority of the providers and key informants share the opinion that the learnership system is definitely an appropriate means to develop artisans, despite their current dissatisfaction.

This overall finding is consistent with the findings of two previous qualitative studies on the learnership system (Babb, 2004; Fester, 2006). Both studies revealed that even among those participants, who expressed dissatisfaction with their particular learnership experiences, there remained a positive sentiment towards the learnership system in general.

TABLE 4.10
APPROPRIATENESS OF THE LEARNERSHIP SYSTEM – ACROSS ALL GROUPS

Respondent group	definitely	probably	fairly likely	probably not	definitely not	don't know/ no response
Building/Civil Companies	51% (n = 46)	21% (n = 19)	14% (n = 13)	4% (n = 4)	6% (n = 5)	3% (n = 3)
Accredited Training Providers	57% (n = 8)	7% (n = 1)	14% (n = 2)	14% (n = 2)	7% (n = 1)	0% (n = 0)
CETA, Industry-related Associations/Bodies	50% (n = 5)	30% (n = 3)	0% (n = 0)	10% (n = 1)	10% (n = 1)	0% (n = 0)

Fester (2006) further found that there was generally a lack of knowledge, awareness and understanding of what learnerships were, what they entailed in terms of implementation, and further what was needed to successfully implement them. Given the strong expression of dissatisfaction on the availability of/access to information on the system and the number of non responding participants in the current study this finding also seems to be valid for the current study. Further, similar to the current study, Fester experienced the phenomenon that the learnership system was consistently compared by participants to the apprenticeship system, particularly in its effectiveness in terms of outcome, even though this wasn't explicitly requested in the research. Accordingly, the former and continued system (refer to Section 2.3) considerably influences the perception of the learnership system and its outcome. A perception, which is also supported by the findings of the 2007 report on the South African Skills Crisis published by the Centre for Development and Enterprise (CDE, 2007), in which several companies equally lamented the removal of the old apprenticeship training with referral to a more effective outcome of the former system. However, no evidence was found in the current study that respondents requested to abolish the learnership system in favour of the apprenticeship system. By determining the general appropriateness of the learnership system from the providers' perspective research objective 2 is achieved.

4.6 Provider learnership motivation

The third research objective aimed to determine the general learnership motivation of the providers, which is also referred to as input in the learnership evaluation framework (refer to Section 2.6.6.4).

4.6.1 Building and civil companies

Given the current dissatisfaction with the system, the question is how high the current motivation of the building and civil companies is to get or stay involved in the system. Table 4.11 points to a motivational level, which is largely concentrated around the middle section of the intensity scale (67%), of which 37% indicate their motivation as not very high. Despite the fact that 51% percent of the respondents rated their

motivation between extremely high and high, there is a strong indication that the current motivation of the respondents is negatively compounded by certain factors.

TABLE 4.11
PROVIDER LEARNERSHIP MOTIVATION – BUILDING AND CIVIL COMPANIES’ RESULTS

Rating	Provider learnership motivation					
	extremely high	very high	high	not very high	no interest at all	don't know/ no response
Percentage (n=Count)	11% (n = 10)	10% (n = 9)	30% (n = 27)	37% (n = 33)	7% (n = 6)	6% (n = 5)

Reasons for being unmotivated: Respondents, who had indicated their motivation as being not very high or having no interest at all, were given a pre-selected list of four possible reasons. They could either select from the offered list of options (multiple selections possible) or state reasons, which had not been covered by the list in an open text section. The most important factor from the list, as selected by 64% of the respondents, was formal/administrative constraints. Financial constraints (36%) and inappropriate training results (34%) were the next most important reasons. 26% indicated that the duration of the training was too short and 21% stated ‘other reasons’ for being unmotivated. The reasons which emerged from the qualitative analysis of the 14 comments given as ‘other reasons’ were (1) the availability of information on the system (4 comments) and (2) the lack of resources to train (4 comments). Two comments indicated that there were no suitable learnerships available. The remaining four comments were each concerned with four different reasons, i.e. the quality of the learnership outcome, preference to the apprenticeship system, the loss of trained learners after completion and a general lack of interest from employees.

Reasons for being motivated: Motivated respondents stated the following reasons in an open text section (41 comments in total): (1) The believe in enhancing skills and empowerment of employees (56%) and (2) the need for trained labour (i.e. shortage of skill) (24%). Three respondents positively referred to the quality of the learnership outcome and two respondents to the learnership training being company-specific. The remaining 3 comments were rather general and displayed the overall motivational attitude of the respondents: “The daily challenges that all SMME's face daily to break through this and keep on keeping on”; “Its quite challenging and it requires a lot of attention. Also after all the outcomes”; “The learnership system needs support and input from stakeholders to work well. But SETAs must take note of what industry requires.”

Some illustrative comments from the two dominant motivational factors were:

Skills enhancement and empowerment:

- “This is the only way to get the industry standard to a level where we adhere and achieve international standards.”
- “Apart from the fact that it is a good initiative, we would like to empower our employees.”

- “Providing young people and new entrants into the world of work with the opportunity to gain a qualification via the learnership route, makes economic, financial and moral sense. These young people would otherwise have no way of gaining an accredited qualification in any other way.”

The need for trained labour/shortage of skill:

- “The need to train people and to ensure that the industry acquires and retains skilled workers.”
- “The need to get our employees trained in a practical manner in order to create artisans.”
- “The desperate need for skills in our industry and the desire to succeed in our business.”

4.6.2 Accredited Training Providers

The general learnership motivation of the formal training providers tends to be higher than that of the building and civil companies. As responses in Table 4.12 show, 71% of the respondents rated their motivation to be extremely high, very high and high. This result may be expected as the accredited training providers earn their living from the learnership system and accordingly should have a fairly high motivation to stay involved in the system. However, despite this circumstance over a quarter of the respondents (29%) indicated that their motivation was not very high. This suggests that the current learnership motivation of the formal training providers is also negatively affected by certain factors. These factors were further analysed in the subsequent sections.

TABLE 4.12
PROVIDER LEARNERSHIP MOTIVATION – ACCREDITED TRAINING PROVIDER RESULTS

Rating	Learnership motivation					don't know/ no response
	extremely high	very high	high	not very high	no interest at all	
Percentage (n=Count)	21% (n = 3)	21% (n = 3)	29% (n = 4)	29% (n = 4)	0% (n = 0)	0% (n = 0)

Reasons for being motivated: The motivated respondents were mainly driven by the passion to develop people and skills for the industry, and further by the actual outcome of the learnership. Examples of comments were: “The passion to develop people to their full potential as qualified artisans”; “The learner at the end of it all, seeing the results: How people take up their career and that the learnership is a basis for becoming for example a supervisor/foreman.”

Reasons for being unmotivated (multiple selections possible): The main factors given by providers are formal and financial constraints. This finding is consistent with the building and civil company results. Both factors were considered equally important with each factor indicated by 29% of the respondents as their main reason for being unmotivated. Another 21% considered the duration of the training as too short and an equal proportion stated other reasons (21%). The main reason which emerged from the analysis of the open comments (2 comments) was that providers were unsatisfied with the administration and responsiveness of the CETA regarding provider concerns, particularly the non-issuing of certificates, which again confirms the

findings of the learner group (refer to Section 4.4.2). As a response to this problem some providers stated that they had begun to issue their own certificates so that learners would at least “have some kind of paper proving their qualification”. Again, one can only say that this problem urgently has to be addressed. Only a minority (14%) were unmotivated because of inappropriate training results. This finding is unsurprising, as the providers themselves, influence the training results to a fairly high extent, and thus shouldn’t consider them inappropriate.

4.6.3 CETA, Industry-related Associations and Bodies

Results reflected in Table 4.13 show that the majority of key informants were of the opinion that the current motivation of the industry to get or stay involved in the system in general is fairly high. On an aggregate level 60% of the respondents indicated the motivation to be between extremely high and high. However, as almost completely in line with the findings of the building and civil companies (i.e. 37%, refer to Section 4.6.1), another 40% estimated the current motivation as not very high. Shifting focus to why respondents may be motivated or unmotivated the key informants again mainly share the views expressed by the building and civil companies themselves.

TABLE 4.13
PROVIDER LEARNERSHIP MOTIVATION – CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Rating	Learnership motivation					
	extremely high	very high	high	not very high	no interest at all	don't know/ no response
Percentage (n=Count)	10% (n = 1)	20% (n = 2)	30% (n = 3)	40% (n = 4)	0% (n = 0)	0% (n = 0)

Reasons for being motivated: According to the key informants the main reason of the industry for being motivated is undoubtedly the present economic boom and thus the lack of skills currently experienced by the industry. Comments of the key informants in this regard included: “Current economic upswing in sector”; “The current skill shortage, pressure to deliver, realisation that no one will train for them and tax incentive for training.”

Reasons for being unmotivated (multiple selections possible): The factors, which negatively affect the motivation of the industry as perceived by the key informants, are almost identical to those identified by the building and civil companies. Formal constraints (50%) are the main reason, directly followed by financial constraints (40%). The duration of training (i.e. too short) and inappropriate training results rank equal, with each being stated by 20% of the respondents. Another 20% stated other reasons, which included that the industry is “not understanding the model” and further has “other emerging opportunities as a result of the economic upswing.” Unfortunately, the other “emerging opportunities” were not further elaborated on by the respondent.

4.6.4 Summary: Provider learnership motivation

As an answer to research objective 3, the above findings in terms of learnership motivation, suggest that the providers (both workplace and institutional) do have a fairly high motivation to get or stay involved in the learnership system (refer to Table 4.14). This motivation mainly results from an articulated general positive attitude 'to enhance skills and empower employees' (i.e. workplace providers) and the passion to develop people and skills for the industry (i.e. institutional providers). Furthermore, it is currently strongly driven by the experienced skill shortage in the industry. The general positive motivation however, is negatively affected by factors surrounding the actual implementation of the learnership, most importantly, formal/administrative constraints, financial constraints and inappropriate training results (i.e. learnership outcome). This finding is concurrent with Vroom's theory presented under Section 2.6.6.4 as to which learnership motivation will be influenced by the outcomes (and their value to the providers) and the providers' expectancy to achieve those outcomes by exerting a certain amount of effort. As per evidence from this study, particularly the building and civil companies' motivation, is negatively influenced by the current learnership outcome. At present it is not perceived as suitable for the industry and most importantly the effort, which has to be performed (i.e. administratively and financially) in order to achieve this outcome is observed as not appropriate. Triangulation with data from the reasons for the current dissatisfaction additionally confirm the above stated factors as being major in the opinion of the respondents (refer to Section 4.4). The finding that particularly formal/administrative constraints (i.e. bureaucracy) are perceived as a general constraint to the implementation of the new skills development system is consistent with the findings of the 2003 State of the Industry Report (Rourke, 2003) referred to in Section 2.5.4. Research objective 3 is achieved.

TABLE 4.14
PROVIDER LEARNERSHIP MOTIVATION – ACROSS ALL GROUPS

Respondent group	extremely high	very high	high	not very high	no interest at all	don't know/ no response
Building/Civil Companies	11% (n = 10)	10% (n = 9)	30% (n = 27)	37% (n = 33)	7% (n = 6)	6% (n = 5)
Accredited Training Providers	21% (n = 3)	21% (n = 3)	29% (n = 4)	29% (n = 4)	0% (n = 0)	0% (n = 0)
CETA, Industry-related Associations/Bodies	10% (n = 1)	20% (n = 2)	30% (n = 3)	40% (n = 4)	0% (n = 0)	0% (n = 0)

4.7 Provider learnership competence

The second input under investigation was provider learnership competence. Respondents in this section were asked how well they or the industry (i.e. for key informants) currently felt prepared for conducting effective learnerships within their organisation (i.e. company or training institution).

4.7.1 Building and civil companies

As indicated in Table 4.15 the majority of the building and civil respondents (66%) centred around the midpoint of the intensity scale and was equally spread between feeling prepared (33%) and not very well prepared in terms of their overall learnership competence.

TABLE 4.15
PROVIDER LEARNERSHIP COMPETENCE – BUILDING AND CIVIL COMPANIES’ RESULTS

Rating	Provider learnership competence					
	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Overall competence						
Percentage (n=Count)	9% (n = 8)	13% (n = 12)	33% (n = 30)	33% (n = 30)	7% (n = 6)	4% (n = 4)
Technical competence						
Professional knowledge/ expertise to train the profession	9% (n = 8)	27% (n = 24)	33% (n = 30)	26% (n = 23)	2% (n = 2)	3% (n = 3)
Methodological competence						
Recruitment methods for attaining and finding candidates	7% (n = 6)	16% (n = 14)	43% (n = 39)	23% (n = 21)	8% (n = 7)	3% (n = 3)
Proper assessment of candidates	6% (n = 5)	18% (n = 16)	37% (n = 33)	31% (n = 28)	6% (n = 5)	3% (n = 3)
Conducting the training (i.e. effective methodology, training methods and materials)	4% (n = 4)	12% (n = 11)	24% (n = 22)	43% (n = 38)	13% (n = 12)	3% (n = 3)
Interpersonal competence						
Guiding and mentoring the learner	7% (n = 6)	23% (n = 21)	47% (n = 42)	21% (n = 19)	1% (n = 1)	1% (n = 1)
Dealing with occurring problems (i.e. discipline/motivation, drugs, HIV/Aids, learning problems, etc.	7% (n = 6)	18% (n = 16)	43% (n = 39)	27% (n = 24)	4% (n = 4)	1% (n = 1)

With regards to the different underlying dimensions (technical, methodological and interpersonal competence) the results varied showing a fairly high level of confidence, when being asked about the ‘professional knowledge/expertise to train the profession’. *Technical competence*: Compared to 13% of the respondents who indicated to feel ‘very well prepared’ in terms of their overall competence, 27% of the respondents indicated this feeling with regards to their technical competence. An almost equal number though (26%) still expressed the feeling that they were not very well prepared. *Methodological competence*: In terms of ‘recruitment methods for attaining and finding candidates’ the responding companies also felt quite ‘prepared’ with 43% of the respondents selecting this rating choice. Similarly to the previous result almost a quarter (23%) felt they were not very well prepared. This number increased to 31% when referring to the ‘proper assessment of candidates’, with 37% percent of the respondents feeling prepared, which suggests that there is a higher degree of uncertainty in this area. The most striking figures with regards to

the methodological competence of the companies though emerge when it comes to actually conducting the training. 43% of the respondents expressed the feeling that they are 'not very well prepared' and 13% even indicated to feel 'not at all prepared' (the highest percentage in this category). This equals 56% of the respondents selecting the two lowest possible rating choices on the intensity scale. Consequently, this area demonstrates the lowest confidence level in terms of competence as expressed by the respondents. *Interpersonal competence:* Guiding and mentoring the learners is a task for which 47% of the respondents indicate feeling 'prepared', with the remaining respondents spread fairly equal between feeling very well prepared (23%) and not very well prepared (21%). When dealing with occurring problems (i.e. discipline/motivation, drugs, HIV, learning problems, etc.) the confidence slightly decreases and 27% feel they are not very well prepared.

Considering the above, there seems to be strong evidence that most of the responding building and civil companies currently feel fairly competent for learnerships, but nevertheless feel that they require support in this area. This assumption is made as the majority only indicates to be prepared and across all aspects in question at least one out of five respondents (20%) indicates to be 'not very well prepared'. Accordingly, support seems to be required in all facets of the learnership, but mostly in the area of methodological competence, i.e. how to actually implement and conduct the learnership. This assumption is supported by the subsequent findings in this section by both quantitative and qualitative data.

Support required? Asked, if they would appreciate support in these matters, the vast majority of respondents indicated 'yes' (90%). By whom would those, who appreciated support, want to be supported?

Support by whom? Multiple selections in this category were possible. Highly positive to note, given the considerable low level of satisfaction with the current services delivered by the CETA (refer to Section 4.4.1) the majority of respondents would actually appreciate this support from the CETA (67%). This strongly suggests that the employers despite their dissatisfaction still generally confide in the CETA as the main provider for rendering learnership services. However, they are expecting more than is currently delivered. Another 52% would appreciate support from the cidb and 32% indicated to appreciate support from 'other supporters', such as SAFCEC, MBA, NHBRC, etc. Seven respondents would appreciate support from the training institutions, three respondents wanted support from the government and SETAs in general and one respondent from a local steering committee.

In which specific matter? The specific matters in which the respondents required support (69 comments in total) were highly concentrated on issues of methodological learnership competence and therein particularly to receive 'Practical guidance on starting, operating and managing training' (46%). This was directly followed by 'general information on the system in all matters' (22%). 13% of the comments concentrated on interpersonal learnership competence and 'dealing with occurring problems such as discipline, motivation, learning problems, drugs and HIV'. Four comments stressed that 'industry-suitable learnerships with adequate content' had to be developed. The remaining related comments were concerned with financial

support (2 comments), specific trainings that the companies required (2 comments), a better communication between all stakeholders (1 comment) and the request to simplify the learnership process (1 comment). 4 comments were not directly related to the question and dealt more with general requests. Some exemplary comments in the three main identified areas for support were:

Practical guidance on starting, operating and managing training

- “Information on setting up learnerships and government support”
- “A resource data base per area of potential trainees”
- “Standardisation of terms of employment, pay, guarantee of continued employment/service”
- “Identification of accredited training providers”
- “Drawing up a customised curriculum for each candidate”
- “Not support as in assistance, maybe just set rules and regulations and how to structure the learnership.”

General information on the system in all matters

- “Information on the whole subject”
- “more about learnerships”
- “Communication of training and assistance available”
- “No specific matter - more info on what is available to both the artisans and management”

Dealing with occurring problems

- “Ensuring the learner remains employed and delivers - the process is too easy for them to give up.”
- “Discipline, Work Ethic, absenteeism”
- “Learning problems, drugs/HIV”

4.7.2 Accredited Training Providers

In terms of learnership competence the formal training providers display a fairly high level of preparation. As illustrated in Table 4.16 the majority (57%) in terms of overall learnership competence feels very well prepared. With regards to the underlying competence dimensions the results show slight variations, but generally remain in the three ‘prepared’ categories. *Technical competence* is the area, in which the providers show the strongest confidence, with 36% responding to be ‘extremely well prepared’. *Methodological competence* and thus training and evaluating the learners, is the area in which most feel to be ‘very well prepared’ (57% and 64%). The same confidence is also reflected in the *interpersonal competence* item ‘guiding and mentoring the learners’ (64%).

TABLE 4.16
PROVIDER LEARNERSHIP COMPETENCE – ACCREDITED TRAINING PROVIDER RESULTS

Rating	Provider learnership competence					
	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Overall competence						
Percentage (n=Count)	21% (n = 3)	57% (n = 8)	21% (n = 3)	0% (n = 0)	0% (n = 0)	0% (n = 0)
Technical competence						
Professional knowledge/ expertise to train the profession	36% (n = 5)	50% (n = 7)	7% (n = 1)	7% (n = 1)	0% (n = 0)	0% (n = 0)
Methodological competence						
Innovative (action-oriented and outcome-based) training methods	21% (n = 3)	57% (n = 8)	14% (n = 2)	7% (n = 1)	0% (n = 0)	0% (n = 0)
Appropriate evaluation (OBE)	21% (n = 3)	64% (n = 9)	14% (n = 2)	0% (n = 0)	0% (n = 0)	0% (n = 0)
Interpersonal competence						
Guiding and mentoring the learner	21% (n = 3)	64% (n = 9)	14% (n = 2)	0% (n = 0)	0% (n = 0)	0% (n = 0)
Dealing with occurring problems (i.e. discipline/motivation, drugs, HIV/Aids, learning problems, etc.)	21% (n = 3)	36% (n = 5)	29% (n = 4)	14% (n = 2)	0% (n = 0)	0% (n = 0)

Only in dealing with occurring problems such as discipline/motivation, HIV/Aids, etc. the providers demonstrate that they feel less prepared as in the other areas, with only 36% of the respondents feeling 'very well prepared'. These results suggest that the providers as compared to the building and civil companies feel very competent and only feel to require some support in dealing with occurring problems. A finding, which may not seem surprising given the fact that all providers have been involved in learnership training for a considerable amount of time. Nevertheless, they as well indicate to require support.

Support required? Similarly to the building and civil companies the vast majority of training provider respondents would appreciate support in terms of learnership competence related issues (79%). Only three respondents (21%) indicated that they would not appreciate or be open for support.

By whom? Once again, the CETA is the main authority from which respondents in general wish, to receive support (64%). The 'other' appreciated supporters as indicated by the providers (36%) are the companies (i.e. workplace providers) and industry organisations such as MBA or SAFCEC. Only one respondent wished to receive support from the cidb.

In which specific matter? Qualitative data indicate that the main area for support from the CETA is in the 'Provision of training and learning material' (4 comments). As the providers indicate, they require support in "developing training material; learner, assessor and practitioner guides" since this "draws time from actually teaching" and further "implies the risk of developing materials which are not up to standard". This finding is

consistent with Fester's (2006) study, in which respondents equally raised concerns with regards to curriculum design and courseware development. According to Fester's results, in the past there was a nationwide standard for teaching and learning material made available from the Department of Education and the instructors were not required to write their own courseware. The own development of courseware in connection with learnerships raised the concern of quality assurance and quality control, and further detracted time from the students, or if done after hours would not be adequately reimbursed (pp. 68-69). Hence, the development of courseware for learnerships seems to be a consistent concern among providers in general and requires attention as support in this regard is a key function of the CETA (refer to Section 2.2.2.1). The other areas of required support were: Dealing with occurring problems, support from the CETA with regards to moderation (1comment), structured talks on career opportunities for learners and generally more presence/interest (1 comment). One respondent asked for support from the CETA to "change the learnerships to be more appropriate".

4.7.3 CETA, Industry-related Associations and Bodies

In terms of overall learnership competence, the results of the key informants again are in line with the building and civil companies own opinion in this regard (refer to Section 4.7.1). As depicted in Table 4.17 half of the respondents considered the industry not very well prepared. Almost a third (30%) indicated that the industry was prepared and only 20% gave a better rating.

TABLE 4.17
OVERALL PROVIDER LEARNERSHIP COMPETENCE– CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Overall provider learnership competence						
Rating	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Percentage (n=Count)	0% (n = 0)	20% (n = 2)	30% (n = 30)	50% (n = 30)	0% (n = 0)	0% (n = 0)

With regards to the underlying competence dimensions respondents were asked to give their ratings with respect to the different company-sizes. As highlighted within Table 4.18 small/micro-sized companies were generally considered to be less prepared than medium-sized or large companies.

In terms of 'proper assessment of candidates' and 'conducting the training' at least half of the respondents even indicated that the small/micro companies were 'not at all prepared' (60% and 50% respectively). What further seems worth highlighting is that with regards to 'guiding and mentoring the learner', the majority (60%) also considered the large companies as 'not very well prepared'. Overall, given these results and the fact that the majority of companies in the construction industry are small to medium-sized companies, there remains no doubt that support in the area of learnership competence is required.

TABLE 4.18
PROVIDER LEARNERSHIP COMPETENCE ACCORDING TO COMPANY SIZE – CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Competence dimension	Enterprise size	extremely well, well prepared and prepared	not very well, not at all prepared	don't know/ response
Technical				
Professional knowledge/expertise to train the profession	Small/Micro	30%	60%	10%
	Medium	60%	30%	10%
	Large	80%	20%	-
Methodological				
Recruitment methods for attaining and finding candidates	Small/Micro	30%	60%	10%
	Medium	60%	30%	10%
	Large	80%	20%	-
Proper assessment of candidates	Small/Micro	20%	70% (60% not at all)	10%
	Medium	50%	40%	10%
	Large	80%	20%	-
Conducting the training	Small/Micro	20%	70% (50% not at all)	10%
	Medium	50%	40%	10%
	Large	80%	20%	-
Interpersonal competence				
Guiding and mentoring the learner	Small/Micro	30%	60%	10%
	Medium	50%	40%	10%
	Large	40%	60%	-
Dealing with occurring problems during the learnership	Small/Micro	20%	60%	20%
	Medium	30%	50%	20%
	Large	90%	10%	-

4.7.3 Summary: Provider learnership competence

According to the above findings the learnership competence level of the building and civil companies as indicated by the respondents' own perception as well as the key informants responses is currently not at a satisfactory level (refer to Table 4.19). As clearly expressed by the majority of the respondents within the qualitative findings, a lot more support is required particularly in terms of general knowledge on the system and what is entailed to successfully implement the system in practice. These results provide further evidence to the previous argument that Fester's (2006) finding on 'knowledge, awareness and understanding of the system' is equally valid for this research (refer to Section 4.5.4). Furthermore, the results in terms of learnership competence provide evidence in favour of the two arguments brought forward in the theoretical framework. Firstly, the argument of Kruss (2004) that there is a poor understanding and grasp of the new education and training policy, and thus employers do not adequately understand the concept of learnerships (refer to Section 2.6.6.3) and secondly that there may be competence issues hampering an effective implementation of learnerships in the industry (refer to Section 2.4.2.3). The institutional providers feel to have acquired a fairly high level of learnership competence (refer to Table 4.19), but do as well require practical support in the actual implementation of learnerships, most importantly the provision of learning and teaching material.

TABLE 4.19
OVERALL PROVIDER LEARNERSHIP COMPETENCE – ACROSS ALL GROUPS

Respondent group	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Building/Civil Companies	9% (n = 8)	13% (n = 12)	33% (n = 30)	33% (n = 30)	7% (n = 6)	4% (n = 4)
Accredited Training Providers	21% (n = 3)	57% (n = 8)	21% (n = 3)	0% (n = 0)	0% (n = 0)	0% (n = 0)
CETA, Industry-related Associations/Bodies	0% (n = 0)	20% (n = 2)	30% (n = 30)	50% (n = 30)	0% (n = 0)	0% (n = 0)

With the above analysis of the learnership competence level of the providers' research objective 4 is achieved.

4.8 Learnership processes

The fifth research objective was concerned with learnership processes and thus the processes referred to in the learnership evaluation framework (refer to Section 2.6.6.3).

4.8.1 Building and civil companies

Table 4.20 paints a highly negative picture in terms of the respondent's perceptions on learnership processes. Across all 12 processes only two respondents selected the answer 'excellent'. The majority of respondents as displayed in the table, tended to be negative and chose ratings of either 'fair' or 'poor'. Similarly, to the findings under learnership satisfaction a high percentage chose to select 'don't know/no response' in this category, which even peaked to a high of 45% in the case of the 'customised time schedule for training'. Obviously, there seems to be a high lack of awareness/knowledge on the actual learnership processes, which is not really surprising given the previously discussed results. This assumption manifests when looking at the 'no response' percentages within the table: The lowest 'no response' rates are displayed for processes, which do not require specific learnership knowledge (i.e. Availability of information and of suitable candidates, 14% and 13% respectively). However, when moving to more specific questions (i.e. formal procedures) the 'no response' immediately increases (21%) and develops to even higher levels towards the end of the table, the more specific the learnership processes are. The qualitative findings in this section additionally confirm this assumption.

TABLE 4.20
LEARNERSHIP PROCESSES – BUILDING AND CIVIL COMPANIES’ RESULTS

Rating	Learnership processes					
	excellent	very good	good	fair	poor	don't know/ no response
Availability of information on the learnership system and its benefits	0% (n = 0)	7% (n = 6)	18% (n = 16)	22% (n = 20)	39% (n = 35)	14% (n = 13)
Availability of suitable candidates required (with basic skills required and the necessary motivation)	0% (n = 0)	9% (n = 8)	17% (n = 15)	32% (n = 29)	29% (n = 26)	13% (n = 12)
Formal procedures in setting up, dealing with the learnership (WSP, etc.)	0% (n = 0)	6% (n = 5)	11% (n = 10)	28% (n = 25)	34% (n = 31)	21% (n = 19)
Financing scheme of the system (levy-claiming system)	0% (n = 0)	3% (n = 3)	13% (n = 12)	22% (n = 20)	37% (n = 33)	24% (n = 22)
Support given by the CETA	2% (n = 2)	2% (n = 2)	6% (n = 5)	18% (n = 16)	48% (n = 43)	24% (n = 22)
Regional availability of formal training by accredited providers	0% (n = 0)	7% (n = 6)	17% (n = 15)	23% (n = 21)	30% (n = 27)	23% (n = 21)
Quality of formal training delivered by the providers	1% (n = 1)	7% (n = 6)	20% (n = 18)	22% (n = 20)	20% (n = 18)	30% (n = 27)
Entire duration of the learnership	0% (n = 0)	9% (n = 8)	13% (n = 12)	22% (n = 20)	18% (n = 16)	38% (n = 34)
Length of formal training	0% (n = 0)	4% (n = 4)	19% (n = 17)	26% (n = 23)	13% (n = 12)	37% (n = 33)
Length of practical training	0% (n = 0)	8% (n = 7)	20% (n = 17)	23% (n = 20)	13% (n = 11)	37% (n = 32)
Customised time-schedule for formal training	0% (n = 0)	2% (n = 2)	14% (n = 12)	25% (n = 22)	14% (n = 12)	45% (n = 39)
Process of assessment and certification (through accredited assessors)	0% (n = 0)	4% (n = 4)	12% (n = 11)	26% (n = 23)	20% (n = 18)	37% (n = 33)

Open comments on processes: The 31 open comments on learnership processes given by respondents referred predominantly to the unsatisfactory ‘availability of information on the system’ (55%). Accordingly, a large number indicated that they could not respond to a number of processes, because they had no information on them. Four respondents commented on the CETA, displaying a very low level of confidence (e.g. “CETA is incompetent and need to jack their act”; “the CETA is hopeless”). The ‘formal procedures’, and thus the need to simplify the system as well as the ‘unavailability of suitable learnerships’ were equally criticised by three respondents. The need for simplified formal processes was expressed by one respondent as follows: “Most small companies are run by one or two individuals whose prime function is to make the company profitable, almost all time and energy is devoted to operational requirements. No time to read the

realms of notes etc. We need a summary and the CETA to take a more active role in the administration at company level". In terms of availability of learnerships one respondent commented that there was "nothing available for the waterproofing trade". Two respondents found the duration of the training to be too short. Two other comments were not referring to processes, but indicated that it was not possible for them to implement learnerships due to business constraints. Some comments referring to the most prevalent themes were:

Availability of information on the system

- "None of the above is clearly communicated, thus our inability to respond to specific issues
- "Not fully aware of current systems."
- "Not much is communicated to companies not affiliated to the existing or established organisations."
- "Learnership processes seem to frighten most people as the process seems tedious, is there a guide to learnerships readily available to industry to show them the process and motivate more to join in the process?"

Given the negative consensus among participants on all 12 learnership processes and the considerable closeness of results (as reflected in Table 4.3) it seems tremendously difficult to clearly identify primary process needs of the employers, as it is aspired per research aim 3. Nevertheless an attempt, substantiated by the sections findings, is made in the following summary:

Identification of primary process needs: Given the above findings the most prevalent issue, which can be identified is undoubtedly the 'support given by the CETA' (48% 'poor'). This process is strongly interrelated with the 'availability of information on the system', which demonstrates the second highest percentage of dissatisfaction (39% 'poor') and is further supported by the majority of qualitative comments in this and the previous sections. The two next processes are ranked equally close to each other, with a slight indication of the 'financing scheme of the system' (37% 'poor') being perceived more negative than the 'formal procedures' (34% 'poor'). The importance of simplified formal procedures for the respondents is additionally supported by the qualitative findings. Thus, the following list for the primary process needs of the employers is provided:

1. Support given by the CETA; Availability of information on the system
2. Financing scheme of the system, formal procedures
3. Regional availability of formal training, Availability of suitable candidates
4. Quality of formal training, process of assessment and certification
5. Entire duration of the learnership (length of formal and practical training)

The item 'customised time-schedule' is not integrated in the ranking due to its high non response (45%). There seems to be a strong indication, that this question was not understood by a large proportion of respondents.

The aforementioned list strongly correlates with the findings of the previous sections, particularly with the reasons given for the employers' current dissatisfaction with the system (refer to Section 4.4.1) and the needs for support articulated under provider learnership competence (refer to Section 4.7.1). As additionally demonstrated by the results of the learnership processes' the civil/building companies perceive the current lack of support, particularly in terms of clear information/practical guidance on the system as well as 'the financing scheme' (funding) and the highly bureaucratic 'formal procedures' as the three major procedural obstacles to an efficient and effective learnership system. The other processes fall behind in their priority given the consistent predominance of these issues across all sections.

4.8.2 Construction Learners

Concerning learnership processes the learners in general, once again contrary to the building and civil companies are very satisfied. Responses as depicted in Table 4.21 show that the majority tended to rate towards the positive end of the intensity scale. Only one process was rated fair to poor by a majority of respondents (52%). As to be expected from the previous findings this was the 'process of assessment and certification'.

TABLE 4.21
LEARNERSHIP PROCESSES – CONSTRUCTION LEARNER RESULTS

Rating	Learnership processes					
	excellent	very good	good	fair	poor	don't know/ no response
Quality of support and guidance by employer	26% (n = 34)	21% (n = 28)	14% (n = 18)	7% (n = 9)	10% (n = 13)	23% (n = 30)
Quality of support and guidance by the training institute	42% (n = 56)	30% (n = 40)	18% (n = 24)	6% (n = 8)	1% (n = 1)	2% (n = 3)
Quality of support and guidance by the CETA	22% (n = 29)	18% (n = 24)	17% (n = 22)	7% (n = 9)	7% (n = 9)	30% (n = 39)
General conditions with regards to reliable payment	55% (n = 73)	19% (n = 25)	10% (n = 13)	3% (n = 4)	4% (n = 5)	9% (n = 12)
Availability of suitable learning and teaching material (machinery, books in the correct language)	33% (n = 43)	33% (n = 44)	25% (n = 33)	4% (n = 5)	4% (n = 5)	2% (n = 2)
Formal training infrastructure and resources incl. sites, classrooms, teachers.	33% (n = 44)	31% (n = 41)	23% (n = 31)	10% (n = 13)	1% (n = 1)	2% (n = 2)
Process of assessment and certification (through accredited assessors)	7% (n = 9)	13% (n = 17)	15% (n = 20)	10% (n = 13)	42% (n = 55)	14% (n = 18)

Triangulation with the qualitative data, emerging from the learners open comments in this section, additionally verified this as the primary reason for being dissatisfied with the process (refer to comments on processes in this section).

Open comments on processes: Support from and quality of the formal training provider was explicitly stated by 10 respondents, who commented e.g. that “teachers were very supportive”; they “could contact facilitators even in the evening” they were “still in contact with training institute and they help out”, and “trainers were excellent”, etc. This supports the assumption that there are excellent training providers, who strongly support their learners. 2 comments positively noted the support of their employer: “Employer called every day to see how things are going”; “Head office came in once a week for support.”

Consistent with the quantitative findings negative comments on processes were primarily referring to the ineffective ‘process of issuing certificates’ (56%). Four respondents would have appreciated more support from their employer, e.g. “would have appreciated better/more reliable transportation from employer” and 4 respondents criticised the availability of ‘suitable learning material’ for e.g. “too many books were in Afrikaans” or one “struggled with the English books”. In part this finding points to the language difficulties discussed in the theoretical framework (refer to Section 2.4.1.1). Some respondents (4) expressed that the training infrastructure was not adequate as there was not enough space so that venues changed a lot or training was “taking place at work, which was not good for learning”. This finding relates to the theoretical argument that some providers may face challenges with regards to providing the adequate infrastructure (refer to Section 2.4.1.2). Three respondents indicated they had received their payment, but payment was “not always on time” and they were “waiting for outstanding travel allowances”. Two respondents raised concern with regards to the quality of formal training: “low level when you have prior education”; “teachers very good, but practically not up to date, we knew things better.” Once again, 1 respondent criticised the selection of learners since “not everyone was suitable for the class”.

Mentoring: The majority of learners (61%) indicated not to have an especially assigned mentor in their learnership, with the remaining 39% indicating to have a mentor. These figures are fairly congruent with the company results as to which 69% of the companies did not have an especially assigned mentor for the learners. With regards to Babb and Meyer’s (2005) and further Davies and Farquharson’s (2004) argument, that the provision of mentoring support is a critical key enabler for effective learnership implementation this process can certainly not be considered satisfactory.

HIV/Aids training: Results show that this issue is also not yet adequately addressed by the learnership. The large majority of learners (77%) said that they did not have any special HIV/Aids prevention training within their learnership. Only 23% responded to have received respective training from their formal training provider. Most learners indicated that HIV/Aids had been a part of Health and Safety, but that no in depth training had been conducted. Some learners mentioned that the employer had presented a special training session on HIV/Aids. As evident from these findings no consistent process has so far been established.

Given the importance of this issue in the construction industry (refer to Section 2.4.1.6) this process should certainly be addressed.

Identification of primary process needs: Similar to the building and civil results there is a high degree of congruence between the learner findings in terms of learnership satisfaction and learnership processes. Learners in general are very satisfied with the processes as they are with their learnership. The predominant area of concern and need for those, who have completed their learnership is the issuing of certificates. Two other processes, which certainly need to be addressed as identified above, are 'Mentoring' and 'HIV/Aids training'.

4.8.3 Accredited Training providers

Equally to the employers' opinion, the accredited training providers in general had very little positive to say about learnership processes. As highlighted in Table 4.22 the majority of providers' rated almost all processes at the negative end of the intensity scale. Only their own training infrastructure was rated as good by 71%.

HIV/Aids training: Consistent with the findings of the learner group the majority of formal training providers did not particularly train HIV/Aids prevention training (64%). As revealed by the open comments on processes (6 comments) this was due to the fact that HIV/Aids training was not a separate unit standard and therefore only trained as part of the unit standard 9964 Health & Safety. A number of providers though stated that they perceived training in this issue extremely important and that a separate unit standard as in other SETAs (e.g. MERSETA) should be considered. Two providers stated that due to the importance of the issue they by their own choice had introduced a separate training unit on HIV/Aids. This finding further highlights the need for a consistent process across all providers.

Open comments on processes: The remaining comments (16 comments in total) were concerned with a number of topics:

- **Formal procedures:** e.g. "CETA delays in processes (registration, certification etc.) very problematic"; "lots of paperwork involved."
- **Duration of the learnership:** e.g. "duration of learnership too short for unit standards"; "Learnerships are too long: There should be fewer Unit Standards per qualification, credits are not well balanced at all."
- **Availability of information to the industry:** "Marketing only focuses on learners, more should be done with regards to companies"; "industry is still uninformed";
- **Learning material:** "Learning material had to be developed by each provider; "Organisational prepared learning materials and assessments of a high standard, while CETA issued materials and assessment instruments contained many errors."

- **Selection of learners:** “Proper selection process for learners is not in place; Quality of learners not good because of misinformation, incorrect placement.”
- **Quality of practical training:** “Practical training has improved a lot since introducing logbook”; “Within the practical training there is a poor rotation.”

TABLE 4.22
LEARNERSHIP PROCESSES – ACCREDITED TRAINING PROVIDER RESULTS

Rating	Learnership processes					
	excellent	very good	good	fair	poor	don't know/ no response
State of knowledge in the industry on the learnership system and its benefits (Availability of information)	0% (n = 0)	7% (n = 1)	36% (n = 5)	43% (n = 6)	14% (n = 2)	0% (n = 0)
Formal procedures in setting up, dealing with the learnership (WSP, etc.)	0% (n = 0)	0% (n = 0)	14% (n = 2)	21% (n = 3)	50% (n = 7)	14% (n = 2)
Quality of learners (concerning basic skills required and the necessary motivation)	0% (n = 0)	7% (n = 1)	29% (n = 4)	43% (n = 6)	21% (n = 3)	0% (n = 0)
Financing scheme of the system (levy-claiming system)	0% (n = 0)	0% (n = 0)	7% (n = 1)	21% (n = 3)	57% (n = 8)	14% (n = 2)
Support given by the CETA	0% (n = 0)	0% (n = 0)	7% (n = 1)	21% (n = 3)	64% (n = 9)	7% (n = 1)
Availability of suitable learning and teaching material (machinery, books, etc.)	0% (n = 0)	14% (n = 2)	21% (n = 3)	21% (n = 3)	43% (n = 6)	0% (n = 0)
Given training infrastructure and resources incl. sites, classrooms, teachers	7% (n = 1)	7% (n = 1)	71% (n = 10)	7% (n = 1)	7% (n = 1)	0% (n = 0)
Quality of practical training delivered by the employers	0% (n = 0)	0% (n = 0)	29% (n = 4)	43% (n = 6)	29% (n = 4)	0% (n = 0)
Entire duration of the learnership	7% (n = 1)	14% (n = 2)	14% (n = 2)	50% (n = 7)	14% (n = 2)	0% (n = 0)
Length of formal training	0% (n = 0)	21% (n = 3)	14% (n = 2)	43% (n = 6)	21% (n = 3)	0% (n = 0)
Length of practical training	0% (n = 0)	14% (n = 2)	14% (n = 2)	43% (n = 6)	29% (n = 4)	0% (n = 0)
Employer customised time-schedule for formal training	0% (n = 0)	7% (n = 1)	14% (n = 2)	29% (n = 4)	43% (n = 6)	7% (n = 1)
Process of assessment and certification (through accredited assessors)	0% (n = 0)	43% (n = 6)	14% (n = 2)	21% (n = 3)	21% (n = 3)	0% (n = 0)

A further two comments were concerned with the availability of instructors in the future, as “no new ones were currently trained” and with finances, since the respondent stated “CETA is not paying at all.”

Identification of primary process needs: As indicated by the large majority of the respondents, the most prevalent concern for providers is the ‘support given by the CETA’ (64% ‘poor’). Given the financial difficulties expressed by some providers, the next consecutive process is the ‘financing scheme of the system’ (57% ‘poor’), directly followed by the ‘formal procedures’ (50% ‘poor’). These findings are consistent with the providers’ reasons for being unmotivated (refer to Section 4.6.2). In summary, the following list for the primary process needs of accredited training providers can be provided:

1. Support given by the CETA
2. Financing scheme, formal procedures
3. Availability of suitable learning and teaching material, employer customised time-schedule
4. Entire duration of the learnership (length of formal and practical training)
5. State of knowledge in the industry (i.e. Availability of information), quality of learners, quality of practical training
6. Training infrastructure, process of assessment and certification

Quite remarkably, the two first priorities within this list exactly match the first two process needs identified for the building and civil companies. The ranking order of the other processes is not consistent. This can be explained by the different needs of the two stakeholder groups. Nevertheless, both lists show consistency in the need for addressing the duration of the training and the availability of the information for employers. Furthermore, both groups seem to be concerned about the quality of training delivered by the other party, which emphasises the importance of a regular exchange on these issues between workplace and formal training providers and further a learning curriculum stating clear training responsibilities for each party involved. One respondent stated that they had introduced a regular quarterly meeting with the workplace providers, which had significantly improved the relationship and the exchange on relevant training issues.

4.8.4 CETA, Industry-related Associations and Bodies

Consistent with the previous findings from the provider side, key informants are predominately negative, when it comes to rating the actual learnership processes (refer to Table 4.23). Results show that respondents generally rated the individual processes either fair or poor. Only three processes were considered by the majority as good. These are the availability of learners, the support/cooperation with accredited providers and the employer-customised time schedule.

Identification of primary process needs: In order to identify primary process needs key informants were further asked to state their three major areas of concern in the Western Cape, which in their opinion should

be addressed with priority. The analysis of the three priorities given by each respondent revealed the following areas:

- **Quality of formal training and availability of accredited training providers** (8 comments): e.g. “Enhance capacity of Training providers (curriculum and learning material development, lesson preparation)”; “regional availability of providers”; “Stricter quality management of training providers, Instructors are of poor quality”; “moderation of facilities, material, instructors (instructors are not up to date with new technology).” This finding provides further evidence to the argument that the institutional landscape is challenged by quality and capacity issues (refer to Section 2.4.1.2).
- **Support by employers and quality of practical training** (4 comments): “Availability of employers willing to enrol learnerships”; “Sectoral interest in providing learnerships”; “quality of practical training;” Exposure to full work components to complete learnership.”
- **Duration of the learnership** (3 comments): “Enforce minimum duration for practical experience and formal training”; “length of practical training (too short)”; “Learnership is too short”.
- **Assessment system** (3 comments): “RPL not working”; “revamp assessment system to a more valid system - remove obvious irrelevance and inefficiency in that area”; “process of assessment”.
- **Financing system** (2 comments): “Large companies claim back, smaller companies loose out”; “Financing system does not work for small companies”; “funding should be decentralised to regions.”

Other areas included the need to revise the learnership content under involvement of the industry (i.e. subject matter experts) and a stronger cohesiveness between stakeholders. One respondent urged the development of a provincial sector skills plan and another informant regarded the re-introduction of apprenticeships as the solution.

In summary, under consideration of the quantitative results the following list of primary process needs can thus be provided (refer to Table 4.23):

1. Financing scheme of the system (50% ‘poor’ and comments) and process of assessment (40% ‘poor’ and comments)
2. Quality of formal training (70% ‘fair’ and comments); Availability of suitable learning and teaching material (60% ‘fair’)
3. Duration of the learnership (60% ‘fair’ and comments); Formal procedures in setting up dealing with the learnership (60% ‘fair’)
4. Support by employers (50% ‘fair’ and comments); State of knowledge in the industry (50% ‘fair’); Support by the CETA (50% ‘fair’ of non CETA respondents)
5. Quality of practical training delivered by employers (40% ‘fair’ and comments); Regional availability of formal providers (40% ‘fair’ and comments)
6. Employer customised time-schedule for training (60% ‘good’); Availability of learners (70% ‘good’)
7. Support by/cooperation with accredited providers (80% ‘good’)

TABLE 4.23
LEARNERSHIP PROCESSES – CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Rating	Learnership processes					
	excellent	very good	good	fair	poor	don't know/ no response
State of knowledge in the industry on the learnership system and its benefits (Availability of information)	0% (n = 0)	30% (n = 3)	10% (n = 1)	50% (n = 5)	10% (n = 1)	0% (n = 0)
Formal procedures in setting up, dealing with the learnership (WSP, etc.)	0% (n = 0)	0% (n = 0)	20% (n = 2)	60% (n = 6)	10% (n = 1)	10% (n = 1)
Availability of learners (concerning basic skills required and the necessary motivation)	0% (n = 0)	0% (n = 0)	60% (n = 6)	40% (n = 4)	0% (n = 0)	0% (n = 0)
Financing scheme of the system (levy-claiming system)	0% (n = 0)	0% (n = 0)	20% (n = 2)	30% (n = 3)	50% (n = 5)	0% (n = 0)
Support by/cooperation with the employers	0% (n = 0)	20% (n = 2)	10% (n = 1)	50% (n = 5)	20% (n = 2)	0% (n = 0)
Support by/cooperation with the accredited providers	0% (n = 0)	0% (n = 0)	80% (n = 8)	0% (n = 0)	20% (n = 2)	0% (n = 0)
Support given by the CETA (only if not CETA respondent)	10% (n = 1)	0% (n = 0)	10% (n = 1)	30% (n = 3)	20% (n = 2)	30% (n = 3)
Availability of suitable learning and teaching material	0% (n = 0)	0% (n = 0)	20% (n = 2)	60% (n = 6)	20% (n = 2)	0% (n = 0)
Regional availability of formal training by accredited providers	0% (n = 0)	0% (n = 0)	40% (n = 4)	40% (n = 4)	20% (n = 2)	0% (n = 0)
Quality of formal training by training providers	0% (n = 0)	0% (n = 0)	20% (n = 2)	70% (n = 7)	10% (n = 1)	0% (n = 0)
Quality of practical training delivered by the employers	0% (n = 0)	20% (n = 2)	30% (n = 3)	40% (n = 4)	10% (n = 1)	0% (n = 0)
Entire duration of the learnership	0% (n = 0)	0% (n = 0)	20% (n = 2)	60% (n = 6)	20% (n = 2)	0% (n = 0)
Length of formal training	0% (n = 0)	0% (n = 0)	40% (n = 4)	50% (n = 5)	10% (n = 1)	0% (n = 0)
Length of practical training	0% (n = 0)	0% (n = 0)	20% (n = 2)	60% (n = 6)	20% (n = 0)	0% (n = 0)
Employer customised time-schedule for formal training	0% (n = 0)	0% (n = 0)	60% (n = 6)	40% (n = 4)	0% (n = 0)	0% (n = 0)
Process of assessment and certification	0% (n = 0)	0% (n = 0)	20% (n = 2)	30% (n = 3)	40% (n = 4)	10% (n = 1)

As in the previous findings this list can only be an attempt to structure process needs as almost all processes were consistently rated negative by the respondents. Nevertheless in connection with the identified priorities it can be regarded as a good indication of the primary needs.

4.8.5 Summary: Learnership processes

In summary of the above findings one may constitute that the current learnership processes in large parts are not at all satisfactory and require attention and revision by the CETA. Within the individual respondent groups primary process needs were identified. Hence, research objective 5 for all stakeholders is achieved.

4.9 Learnership outcome

To evaluate the effectiveness of the system with regards to the development of applied competence (i.e. outcome 2) and future employability (i.e. outcome 3) of the learners the last section of the questionnaire was concerned with the actual learnership outcome (i.e. research objective 6). This is also referred to as output in the learnership evaluation framework (refer to Section 2.6.6.2).

4.9.1 Building and civil companies

The employers were asked to rate the overall competence (work readiness) delivered by the learnerships in order to assess the level of applied competence of the learners. As highlighted by Table 4.24 a large proportion of the responding building and civil companies (at least 38%) did not respond in this section. This result is unsurprising given the previous findings of the research and the number of respondents currently not involved in learnerships (45%). Those, who had an opinion tended to be fairly negative with 37% rating the overall competence to be between 'fair' and 'poor'. Only one in five respondents considered the overall competence level to be 'good'.

The findings in terms of the underlying dimensions (i.e. technical, methodological and interpersonal competence) correlated with the overall result and display similar ratings with slight variations between the different dimensions. Technical competence is rated 'poor' by 19% of the respondents as compared to 13% of the respondents choosing this rating for the methodological competence. For the interpersonal competence dimension respondents are spread fairly equal between the ratings 'excellent', 'very good' and 'good' (30%) and 'fair' and 'poor' (29%). Accordingly, there seems to be a greater dissatisfaction of the employers with the technical competence, followed by the methodological competence and lastly the interpersonal competence of the learners. This assumption is supported by the results of the subsequent section, in which participants could indicate the competence dimension that should be addressed more in future.

TABLE 4.24
LEARNERSHIP OUTCOME – BUILDING AND CIVIL COMPANIES' RESULTS

Rating	Learnership outcome					
	excellent	very good	good	fair	poor	don't know/ no response
Overall competence (work readiness)	0% (n = 0)	6% (n = 5)	20% (n = 18)	26% (n = 23)	11% (n = 10)	38% (n = 34)
Technical competence <i>(Professional knowledge and expertise in the profession)</i>	1% (n = 1)	6% (n = 5)	18% (n = 16)	19% (n = 17)	19% (n = 17)	38% (n = 34)
Methodological competence <i>(Ability to practically apply the acquired knowledge and deal with occurring problems)</i>	1% (n = 1)	4% (n = 4)	20% (n = 18)	22% (n = 20)	13% (n = 12)	39% (n = 35)
Interpersonal competence <i>(Ability to interact socially within the work context, i.e. team work, responsible and reliable behaviour, etc.)</i>	1% (n = 1)	8% (n = 7)	21% (n = 19)	17% (n = 15)	12% (n = 11)	41% (n = 37)

What should be addressed more in future? Choosing from a list of options (multiple selections possible), the majority (74%) selected technical competence, followed by 50% of respondents indicating methodological competence and lastly 39%, who chose interpersonal competence. Only 13% of the respondents indicated that it should 'just be kept the way it is'. Employers thus clearly articulate that they are currently not satisfied with the quality of the learnership outcome in terms of applied competence and firstly require more technical competence and secondly more methodological competence from the learners. Interpersonal competence also needs to be addressed, but does not show the same priority.

Adequate length of training? The respondents could indicate the average total number of months required for NQF 2 (worker level) and NQF 3-4 (artisan level) by splitting the total months between practical and formal training. The analysis of the data revealed that on average the respondents considered 12 months (average 9 months practical and 3 months formal; ratio 75:25) of training to be adequate for an NQF 2 learner. For artisans (NQF 3-4) this length was doubled to an average total of 24 months, with 16 months of practical and 8 months of formal training on average (ratio 67:33). Hence, the responding participants clearly prioritised the practical part of the learnership training. Given the previously defined average training length of 12 months for a learnership (refer to 2.2.2.4) the total length of training according to these findings is considered too short for developing artisans (i.e. NQF 3-4). Accordingly, the learnerships intended conception being a sequence of learnerships leading towards artisan status does not yet seem to be translated into practice. The two findings of this section, firstly the general finding in terms of applied competence not being satisfactory and secondly the length of training being too short again are in line with qualitative findings from previous sections referring to the learnership outcome (refer to Section 4.3.2 reasons for dissatisfaction and inappropriateness of the system). In this context the question arises, whether

this perception in terms of applied competence and inappropriate training length also negatively affects outcome 3, i.e. the employability of the learners.

Employability: The analysis of the employer responses, which were involved in learnership training, demonstrated no negative impact on the employability of the learners. Participants were asked to indicate how many of the learners, who had completed their learnership within the last 24 months, were now still working in the company or were employed in the trained field (i.e. other company/self-employed). The percentages calculated indicated a highly positive result in terms of learner employability. As demonstrated in Figure 4.1, the majority of the respondents (60%) indicated that 90% - 100% of the learners were employed in construction. 33% gave employment ratios which were still between 60% and 90%. Only 7% indicated that 0% of the learners were employed.

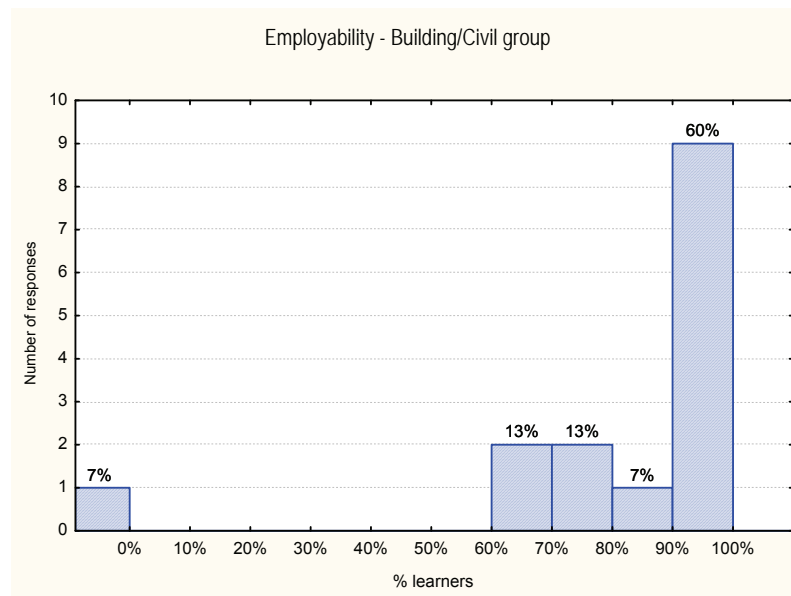


Figure 4.1: Employability – Building and civil companies' results

A very impressive result, considering the above findings in terms of applied competence and the overall state of the South African labour market (refer to 1.2). Even though part of this result may certainly be positively influenced by the current skill shortage in the industry, the impact of learnerships in terms of employability is still high. Consequently, one of the most important aims of learnerships, i.e. enhancing employability thus seems to be achieved. This finding is consistent with the findings of the 'Baseline Survey on the Learnership programme' conducted in 2004 (Jennings, Everatt & Smith, 2005, p. 43; McGrath and Paterson, 2007, p. 310;), which found that from an overall sample of 1207 learners from various sectors an average of 77% of the learners were employed either full- or part-time after completion of the learnership, with the majority thereof being employed full-time (69%).

Drop-out rates per training year: The majority (53%) had experienced drop-out rates between 0% and 10%, with 48% of the respondents reporting 0%. 43% indicated drop-out rates over 10% up to 40%, of

which the majority indicated drop-outs below 30%. Only 5% responded that they had drop-out rates between 70% and 80% (refer to figure 4.2).

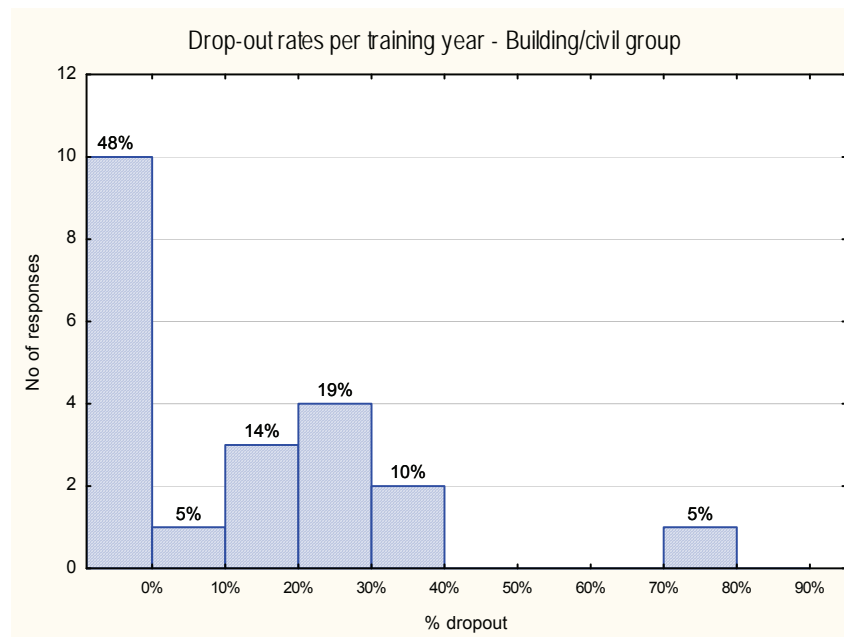


Figure 4.2: Learner drop-out rates – Building and civil companies’ results

The main reason for drop-outs indicated by respondents was ‘the unsuitability of candidates’ (83 learners overall). Financial reasons and health reasons played almost no role (3 learners). Other stated reasons were the learners own resignation (3 learners), a completed contract (1 learners), drugs (1 learner) and the learner being lazy (1 learner), which may as well be allocated to the ‘unsuitability of the candidate’. Even though the majority of participants indicated drop-out rates below ten percent with a strong tendency towards 0% the fairly high drop-out rates among the remaining respondents in this study must still be a matter of concern. As the major reason for drop-outs is the ‘unsuitability of the candidates’, the results point to the tremendous importance of the selection process of learners for an effective learnership system. Hence, this finding additionally confirms the results of previous studies, which were discussed in the theoretical framework and established the recruitment and selection process of the learners as one of the key process for an effective learnership implementation (refer to Section 2.6.6.3).

4.9.2 Construction Learners

After completing the learnership: How well do the learners feel prepared for conducting their profession? As per their own perception the majority of respondents (61%) felt extremely well to very well prepared. Table 4.25 further demonstrates that 24% of the learners still felt prepared and only 10% of the respondents had the feeling they were not very well prepared.

TABLE 4.25
LEARNERSHIP OUTCOME – CONSTRUCTION LEARNER RESULTS

	Learnership outcome					
Rating	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Percentage (n=Count)	14% (n = 18)	47% (n = 62)	24% (n = 31)	10% (n = 13)	0% (n = 0)	5% (n = 7)

In terms of applied competence, i.e. outcome 2, the learners thus once again provide a considerably different picture to the building and civil companies. This result does not really seem surprising as the learners themselves assessed the status of their applied competence. Accordingly, one reason for the positive result may be that responses are biased in the sense that respondents may not want to reveal feeling unprepared. A further reason may be that respondents actually perceive the status of their applied competence as it is reflected in Table 4.25, and that this assessment is just not consistent with the employers' perception. The more probable explanation lies somewhere in between, since the following results do reveal a strong need for further training in some areas, but not for all learners.

What should be addressed more? In terms of the underlying competence dimensions (i.e. technical, methodological and interpersonal competence) the majority of learners (82%) indicated that certain areas should be addressed more (multiple selections possible). Almost a quarter though, 24% of the learners said “just keep it the way it is”, which supports the above assumption that some learners actually do feel adequately prepared. Similar to the building and civil respondents, the learners gave preference to the methodological competence (55%), technical competence (25%) and interpersonal competence (7%).

Duration of training: The need for practical/methodological competence and thus more practical training was also reflected in the results. The entire duration of the training was generally rated positive (60%), with almost half of those respondents indicating it as ‘good’ (29%). The other 29% rated the duration between fair and poor which indicates that almost a third did not perceive the duration as adequate. The remaining 11% did not give a response. The practical duration is more of a concern for learners with 14% indicating this process as ‘poor’ as compared to 6% for the formal training. This result is further verified by the open comments of the learners in this section.

Open comments on duration: Out of 63 comments the majority (52%) criticised that the training and especially the practical training had not been long enough. Some (6 comments) even said they were “not really working during practical training”, which is a serious matter of concern. 11 comments were referring to the sequence of the training and generally regarded a “continuous training” with regular training sequences, as better than if the duration between one step to the next was too long, which meant that the training “stretched out” too much. This finding confirms the learners' preference for continuous training as argued previously (refer to Section 4.4.2). Those, who were satisfied with the duration (3 comments), referred to training sequences split between of 2 or 3 months formal and 2 or 3 months practical. 5 comments felt the

length of training was “too long if you have prior knowledge”. Another 5 criticised once again that they were not able to complete the training.

Accordingly, the majority of learners share the building and civil company perception that the training is too short and particular focus should be laid on the practical part of the training. Only those, who have prior knowledge felt that the training was too long, which indicates that it may be necessary to separate learning groups according to prior levels of knowledge. In general, learners prefer a learnership with continuous training, which does not stretch over a too long period.

Employability: The positive impact of learnerships was indicated as 61% of the sample was employed in construction after completion of their learnership. Of those who were employed, the majority (70%) was still employed with their former employer, 19% were self-employed and 11% had found employment with a new employer (Figure 4.3).

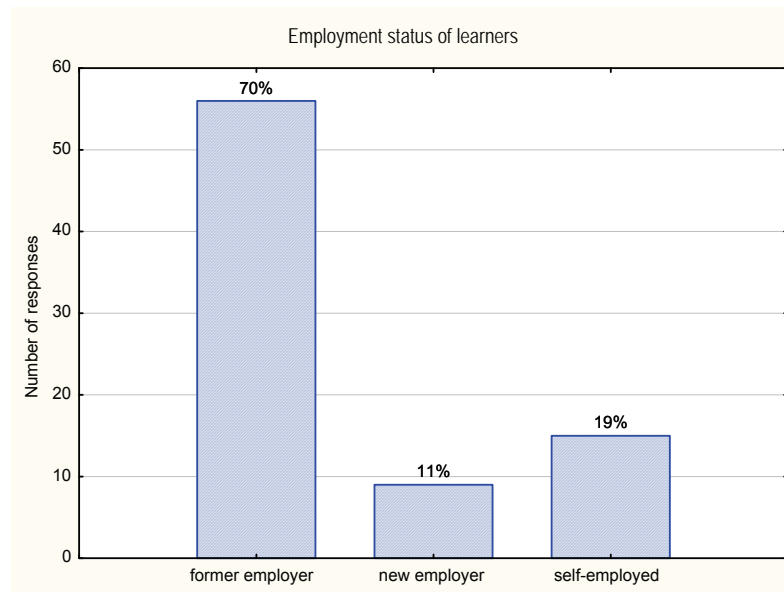


Figure 4.3: Employment status – Construction learner results

Of the 39%, who were no longer working in construction, 43% were employed in another profession. Overall these additional figures lead to an employability rate of 76% of the learners. Surprisingly, given the dire need for skills in the construction industry 31% were ‘unemployed and seeking work in the same profession’. Although this result was not further researched, since it was not a primary aim of the current study, there was an indication from the phone interviews that this unemployment mainly concentrated in rural areas where the learners had been trained through governmental programs, but where there were no jobs available for them afterwards. Furthermore as revealed by the qualitative findings (refer to Section 4.10.2) learners in these programs did not have enough practical experience and had no certificate to proof their qualification. Eight percent were ‘unemployed and seeking for work in a different profession’ as some learners indicated that they did not feel construction was the right job for them and they had only taken the learnership as an opportunity for employment and skills development. One respondent was currently doing

another learnership. Further education was pursued by 12% of the respondents, which additionally provides positive evidence in terms of learnership outcome 3. The remaining 6% stayed at home due to family reasons (pregnancy) or having had an accident.

Open comments on employment/unemployment: Comments indicated the certification process as being a major concern with regards to employment (9 respondents), as well as the availability of employment (3 respondents). One respondent said he would like to “move to a higher level, but had no opportunity” and another respondent said he had “no practical experience”.

Wage: Despite the positive effects on employment, the completion of the learnership in general did not increase the wage of the learners (70%). Only 30% had been given a wage increase. This result may be partly due to the low NQF levels of the learners, but the collected data does not provide sufficient evidence for this assumption.

Learnership impact: As reflected in Table 4.26 the majority of learners (51%) held the view, that after completing the learnership their chances for employment were now ‘definitely’ higher than before. Given the learners experiences in terms of wage, this confidence slightly decreased with regards to a ‘higher income and promotion’, but nevertheless 45% of the learners were still convinced that the learnership had definitely improved their chances for a higher income and promotion.

TABLE 4.26
LEARNERSHIP IMPACT ON EMPLOYMENT, INCOME AND PROMOTION – CONSTRUCTION LEARNER RESULTS

Rating	Learnership outcome					
	definitely	probably	fairly likely	probably not	definitely not	don't know/ no response
Higher chances of employment	51% (n = 67)	27% (n = 35)	9% (n = 12)	10% (n = 13)	1% (n = 1)	4% (n = 3)
Improved chances for a higher income and promotion	45% (n = 59)	24% (n = 32)	19% (n = 25)	7% (n = 9)	1% (n = 1)	5% (n = 6)

This finding points in the same direction as the results from the Baseline Survey on Learnership programmes, in which the majority of the respondents (60% - 70%) felt that the learnership had a very positive impact on their lives (Jennings et al., 2005, pp. 47-48; McGrath & Paterson, 2007, p. 310).

In terms of outcome 3 (i.e. employability/further training opportunity), results indisputably show that the learnership has a highly positive impact with an employability rate of 61% in construction (76% overall) and further training opportunities for 12% of the learners. Although the learnership does not immediately realise a wage increase for the learners a positive impact is nevertheless expected by the majority.

4.9.3 Accredited Training Providers

Overall, the training providers' perception of the applied competence level delivered by the system is not as negative as the employers' perception (refer to Section 4.9.1). As depicted in Table 4.27 the majority of respondents (57%) rated the overall competence of learners as very good or good. However, 43% regard the competence level as not yet good enough by rating it as only fair.

TABLE 4.27
LEARNERSHIP OUTCOME – ACCREDITED TRAINING PROVIDER RESULTS

Rating	Learnership outcome					
	excellent	very good	good	fair	poor	don't know/ no response
Overall competence (work readiness)	0% (n = 0)	21% (n = 3)	36% (n = 5)	43% (n = 6)	0% (n = 0)	0% (n = 0)
Technical competence	0% (n = 0)	29% (n = 4)	36% (n = 5)	36% (n = 5)	0% (n = 0)	0% (n = 0)
Methodological competence	0% (n = 0)	7% (n = 1)	50% (n = 7)	36% (n = 5)	7% (n = 1)	0% (n = 0)
Interpersonal competence	0% (n = 0)	0% (n = 0)	50% (n = 7)	50% (n = 7)	0% (n = 0)	0% (n = 0)

The underlying competence dimensions show only slight variations, which may indicate that providers do perceive more need for methodological than technical competence (7% as compared to 29% very good), but there is no strong evidence for this conclusion as it is also contradicted with subsequent findings. In terms of interpersonal competence providers are equally split between regarding it as good and fair.

What should be addressed more in future? (multiple selections possible): When it comes to the areas that should be addressed more in future, there once again is strong consensus between the accredited training providers and the building and civil companies: Technical competence should be the main focal area (64%) in the future, directly followed by methodological competence (50%) and interpersonal competence (43%). Only 7% (i.e. one respondent) and thus the minority were of the opinion it should be kept the way it is.

Adequate length of training? An adequate length of training in the opinion of the providers, are 17 months for NQF 2 level and 24 months for NQF level. The adequate split between practical and formal as reflected in the responses of the providers is 60:40. Accordingly, the accredited training providers share the opinion of the employers and the learners that the practical part of the training has to be given priority. For developing artisans (NQF level 3-4) the training period is also perceived as too short and should have an average training period of at least 24 months. This again supports the perception that a sequence of learnerships leading to artisan qualification within an occupation is not yet translated into practice.

Employability: The vast majority of training providers (85%) had no precise data available on the employability of the learners. No data with regards to this outcome was recorded by them and they usually did not receive any feedback from the employers in this regard, over which most respondents expressed their regret. The figures, which were given as estimates highly resembled the previous findings and indicated employability rates between 65% and a 100%, with the majority of respondents (61%) estimating it to be between 85% and a 100% (refer to Figure 4.4).

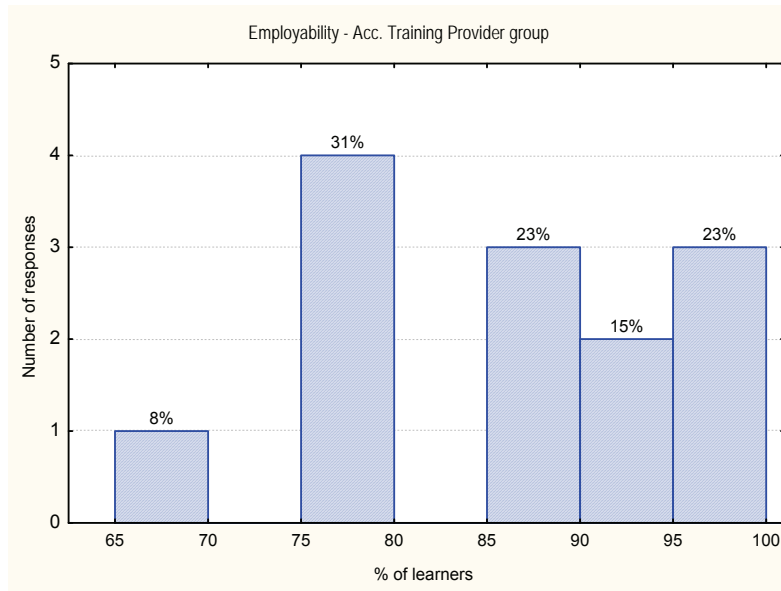


Figure 4.4: Employability – Accredited Training Provider results

Drop-outs per training year: Drop-outs in the experiences of the providers usually (63%) range between 5% to a maximum of 20% (refer to Figure 4.5). One quarter (25%) said drop-outs were usually between 10-15% a year and only one respondent (i.e. 12%) indicated drop-outs between 15-20%.

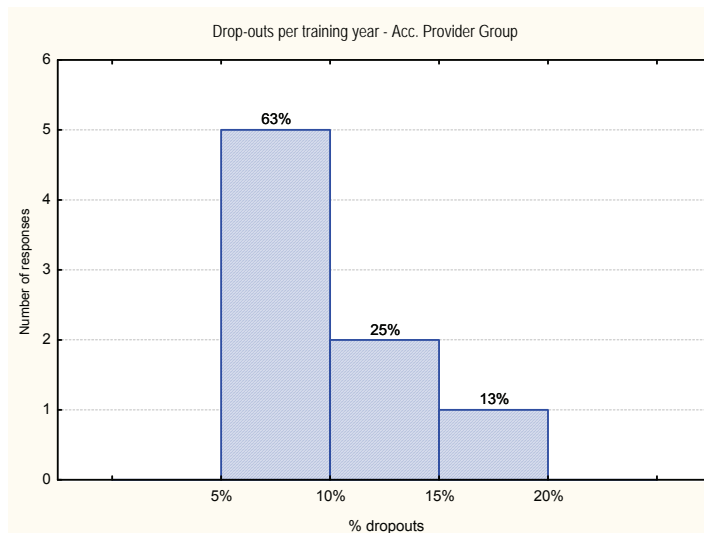


Figure 4.5: Learner drop-out rates – Accredited Training Provider results

Reasons for drop-outs: The major reason for drop-outs as consistent with the findings of the building and civil companies' was the unsuitability of candidates (40%). Other reasons ranged second with 32% for e.g. finding other employment, a lack of interest in the construction industry and the scheduling of courses. HIV/Aids came third with 11% almost equal to financial reasons of the employer (10%). Financial reasons of the learner appeared minor with only 6%. This finding further highlights the need for an appropriate selection process of learners as already corroborated by the findings of the building and civil companies and the learner results.

4.9.4 CETA, Industry-related Associations and Bodies

With regards to learnership outcome 2 and thus the applied competence level delivered by the learnership, key informants were split in half between regarding the overall outcome as good (50%) and fair to poor (50%). As reflected in Table 4.28 this opinion remained fairly stable across the underlying competence dimensions showing slight variations in terms of technical competence (60% fair and poor) and interpersonal competence (70% fair).

TABLE 4.28
LEARNERSHIP OUTCOME – CETA, INDUSTRY-RELATED ASSOCIATIONS/BODIES RESULTS

Rating	Learnership outcome					
	excellent	very good	good	fair	poor	don't know/ no response
Overall competence (work readiness)	0% (n = 0)	0% (n = 0)	50% (n = 5)	40% (n = 4)	10% (n = 1)	0% (n = 0)
Technical competence	0% (n = 0)	0% (n = 0)	40% (n = 4)	50% (n = 5)	10% (n = 1)	0% (n = 0)
Methodological competence	0% (n = 0)	0% (n = 0)	50% (n = 7)	40% (n = 4)	10% (n = 1)	0% (n = 0)
Interpersonal competence	0% (n = 0)	0% (n = 0)	30% (n = 3)	70% (n = 7)	0% (n = 0)	0% (n = 0)

What should be addressed more in future (multiple selections possible)? Respondents regarded the area of technical competence as most important (70%) followed by methodological competence (50%) and only 30% interpersonal competence. Only one respondent (10%) said it should be kept just the way it is. Accordingly, key informants as all the other stakeholder groups before in the current study see a definite need for further competence development. The main area which requires further development is technical competence followed by methodological and interpersonal competence.

Adequate length of training: For acquiring the necessary level of applied competence key informants indicated 18 months on average for NQF level 2 (65:35 practical and formal) and 30 months for NQF level 3-4 (54:46 practical and formal). Hence, the key informants equally see a need for extending the duration of

the learnership in order to develop 'competent' artisans for the industry (NQF 3-4). The key informants even added 6 additional months onto the 2 years as already requested by the providers (refer to Sections 4.9.1 and 4.9.3). This again supports the need for a sequence of learnerships leading to artisan qualification within an occupation.

Employability: The evaluation of learnership outcome 3 and thus the question with regards to employability demonstrated the same positive impact as the previous findings. 70% of the respondents indicated employability rates between 80% and a 100%. One respondent estimated it to be around 40% and only two respondents regarded it as lower by indicating it to be 20% or 25% (refer to Figure 4.6).

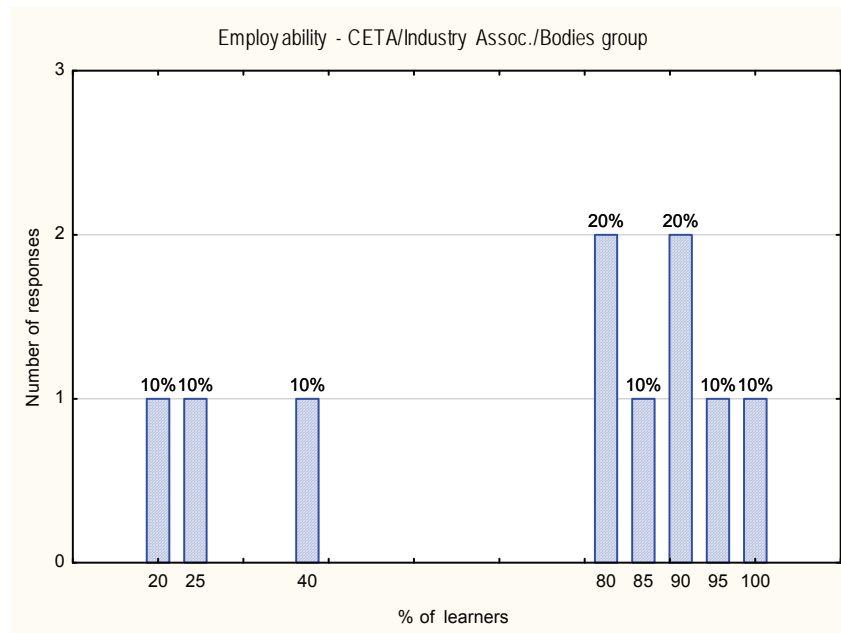


Figure 4.6: Employability – CETA, Industry-related associations/Bodies' results

4.9.5 Summary: Learnership outcome

In summary, the learnership system is currently not yet effective in terms of realising applied competence (refer to Table 4.29). Especially the technical and methodological competences of the learners need to be more addressed in the providers' and key informants' opinion. As per the learners own perception they feel well prepared in terms of their applied competence (i.e. outcome 2) and thus conducting their profession in construction (refer to Table 4.29). Nevertheless, the majority expresses the need to be more trained in terms of firstly their methodological competence and secondly their technical competence, which is also reflected in the results with regards to the duration of training.

TABLE 4.29
LEARNERSHIP OUTCOME (OVERALL COMPETENCE/WORK READINESS) – ACROSS ALL GROUPS

Respondent group	excellent	very good	good	fair	poor	don't know/ no response
Building/Civil Companies	0% (n = 0)	6% (n = 5)	20% (n = 18)	26% (n = 23)	11% (n = 10)	38% (n = 34)
Accredited Training Providers	0% (n = 0)	21% (n = 3)	36% (n = 5)	43% (n = 6)	0% (n = 0)	0% (n = 0)
CETA, Industry-related Associations/Bodies	0% (n = 0)	0% (n = 0)	50% (n = 5)	40% (n = 4)	10% (n = 1)	0% (n = 0)
	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared	don't know/ no response
Construction Learners	14% (n = 18)	47% (n = 62)	24% (n = 31)	10% (n = 13)	0% (n = 0)	5% (n = 7)

There is an indication from the findings that the inappropriate applied competence level (i.e. outcome 2) is partly due to length of training, which is generally perceived as too short for developing adequately competent artisans for the needs of the industry. The length of the training must be extended for artisans to an average length of 24 months. Nevertheless, the system achieves outcome 3 and thus significantly enhances the employability of the learners. With the evaluation of the current learnership outcome, and thus the effectiveness of the learnership system, research objective 6 is achieved.

4.10 Open comments and skills needs in the industry

At the end of the questionnaire participants had the opportunity to add any general comments, ideas, and recommendations in an open section.

4.10.1 Building and civil companies

The analysis of the open comments given by the building and civil participants (32 comments in total) revealed more or less the same issues of concern as the study's previous findings.

Exemplary comments for the three main emerging themes in the open section were:

Availability of information on the system:

- "Communicate to the broader spectrum about learnerships, the advantages stipulated."
- "More information and assistance with finance, recruitment, training and development."
- "CIDB and CETA to make more learnerships available and to inform listed contractors via sms or email, when learnerships become available."

CETA services and processes:

- “We do not get enough support from the CETA. I do not know exactly where to claim for SDL I phoned about accredited trainers and was told they do not have a list. I need to formally train staff - where do I go? What do I do? Help!”
- “Funding is a major concern - we are funding all our learnerships ourselves, so there is no allowance for extras - poaching is a huge problem we pay for learners and other companies steal them.”
- “Just in general, the whole process needs to be put in a format more "user-friendly".

Industry-suitable learnership content:

- “We need to improve content in general - make even more applicable - we ad a lot of extras not required by the formal learnership.”
- “We must revisit all Learnership and Skills programmes (L/S) contents and look at improving content.”

Skills mainly required by the building and civil companies within the coming year:

Thinking ahead to the next 12 months employers predicted their skills needs in terms of numbers and trades. On average the responding companies indicated to require 9 NQF 2 level workers and 10 artisans (NQF 3-4). If one multiplies these average figures with the number of companies from the original sample (n= 729) one receives an aggregate figure of 6561 workers and 7290 artisans required in the building and civil industry for they year 2008 only for the Western Cape. JIPSA has estimated an almost equal artisan backlog of 7500 per year (refer to Section 2.2.4.3). However, this figure was estimated for entire South Africa. Even though the skills numbers obtained in this study were not researched any further, and thus should certainly not be overvalued, these numbers may be an indication that the artisan backlog is now even higher, than it was originally estimated by JIPSA. The main skills/trades required, which emerged from the qualitative findings (75 comments in total) were (1) bricklayers, plasterers and carpenters (28%); (2) surveyors, foremen, operators, engineers (23%); (3) plumbing and tiling; (4) concrete works and (5) shutterhands and joiners. The remaining 19 comments on skills referred to artisan skills in general or to specific individual trades (e.g. ventilation and air-conditioning; training of waterproofers). The findings with regards to skills needs highly resemble the CETA's 'List of priority scarce artisan skills' for the construction field in the financial year 2007-2008 (Madibeng, 2007). This list indicates the following trades as being scarce (Madibeng, 2007, p. 6): Bricklayers, plumbers, carpenters, joiners, shutterhands, steel fixers, plasterers and tillers. Accordingly, the study's findings further confirm the scarce skills list, which was developed from the CETA's Sector Skills Plan (SSP) as being consistent with the current skills needs of the industry.

4.10.2 Construction learners

The most common positive comment given at the end of the interview (72 comments in total) was that learners generally appreciated the opportunity of doing the learnership (21%) and were thankful for the chance that had been given to them for e.g. “Learnership is good for developing skills, especially for younger guys”; “Learnership was very good. Looking forward to doing second level. Very thankful for the opportunity”.

The more critical aspects were the possibility and guidance on further training opportunities (24%) as learners would like to continue learning but were not advised on how to proceed into further training opportunities and once again the fact that no certificate (17%) had been received. 9 respondents argued that there was a “problem with the employment afterwards” since “without practical experience and certificate you cannot do nothing”. One said that he “now got a cidb rating and he hopes it will help in obtaining work as contractor”. The remaining comments spread fairly equal across the requests to ‘improve the training infrastructure (venues and instructors) (4 comments), to improve the ‘training content and learning material’ (5 comments), a ‘better learner selection and preparation’ (5 comments), ‘the opportunity for completion’ (3 comments) and ‘more continuous training’ (3 comments).

4.10.3 Accredited Training Providers

The majority of the accredited training providers took the opportunity to add a fairly large number of concerns/recommendations. The main themes which emerged were:

Revision of learnership content (7 comments) e.g.: “NQF qualifications need urgent revision as to both content and levels – many qualifications contain unit standards that have almost identical specific outcomes and assessment criteria”; “NQF unit standards need to be revised to provide for specific performance / productivity criteria”; Learnerships NQF 2-4 need to be reviewed and realigned to the needs of industry”;

CETA services and processes (administration, funding, formal procedures/bureaucracy) (5 comments) e.g.: “The consequence of the funding problems is of course a failed learnership system and trainee’s unable to complete their learnerships and move into an employment opportunity”. “The amount of paperwork is too bulky (3.5 tons of paper to complete 200 learnerships)”; “portfolio of evidence produces piles of paper, no one manages to look at”.

Recruitment and selection of learners (4 comments) e.g.: “Need to properly recruit 18.2 learners with specific interest and aptitude for construction industry”; “18.2. learnerships should be scrapped unless stringent recruitment provisions prevail – experience shows considerable expenditure on learner allowances

without commitment of learners to building a career within the industry – suggest recruitment based on previous skills program performance followed by proven employment track record in industry.“

Financing scheme of the system (2 comments) e.g.: “CETA funding scheme concentrates only on first economy (i.e. large contractors); “The levy system is a nightmare; was supposed to cater for smaller companies, but now they don't participate. WSP process has changed 3 times, now it takes 3-4 hours on live programme.”

Recognition of prior learning (2 comments): “RPL is not taking place”; “RPL - Recognition of prior learning is misused within learnerships.”

Practical training (2 comments): “On site training has to be addressed”; “Practical training could only be improved after introduction of logbook.”

Practitioner development (2 comments) e.g.: “Problem within building sub-sector practitioners is that many of the practitioners were expected to move from formerly low level (trade oriented) capabilities to more academic level under NQF system. Considerable practitioner support accordingly necessary and continuing professional development program required.”

Other concerns and recommendations for e.g.:

- “The NRLD (National Learner Record Database) between CETA-SAQA-Provider is too complex - not reliable and not compatible.”
- “Learnerships should be scaled down to short skills programmes”; “Why not making one unit standard a learnership on its own.”
- “Standard for learning material, make it available.”
- “There should be one central assessment (as in the trade test).”
- “Payment to service providers (R150/credit/learner) needs to be reviewed. Payment too little for achieving quality. ”

Reviewing the open comments, it becomes apparent that providers have identified a fairly large number of issues, of which the current learnership content of NQF qualifications seems to be a primary concern. Triangulation with data from the building and civil companies confirms the urgency of this issue, as both institutional and workplace providers regard the content as no longer suitable for industry requirements. Again consistent with building and civil companies and findings of the learner group CETA related processes are the next major concern. As reflected in their comments providers confirm the importance of regulated finances for learner completion, and thus employability. With regards to the expressed criticism on the CETA however, it is important to note that 4 respondents explicitly stated, that the CETA did not have the adequate capacity to actually deliver the services expected of them. Comments in this regard were: “Not enough people working at CETA, regions are totally understaffed”; “CETA lacks the staff to develop new learning material”; “taking too long - need more experienced staff”; “CETA staff not adequately skilled”. Given the fact that the regional CETA team for the Western Cape only consists of four members, a further

analysis and appropriate action in this regard is highly recommended. Nevertheless, the required simplification of formal procedures for training (i.e. Portfolio of evidence) and financing learnerships (i.e. WSP) can and must certainly be addressed despite the existing capacity issues. The third process, which requires attention by the CETA as consistent with the findings of all groups so far, is the selection and recruitment process, particularly of 18.2 learners. The other processes as stated by the respondents provide a list of issues which should be additionally investigated and if required addressed.

In general the large amount of comments given in this section clearly demonstrates how important these issues and thus respective interventions are to the providers. What must be a concern in this context is that most providers stated, that they had very little expectations on the effect of the current survey, as the raised issues had been repeatedly addressed to the CETA, SAQA and the Department of Labour with so far little response or remedy. But providers are still passionate and want to “make it work”. As one respondent expressed in his final comment: “I am very passionate about training and have seen a lot of people, who want to be trained. People can be trained at good quality if procedures are in place. Take the community at heart and you will be successful.”

4.10.4 CETA, Industry-related Associations and Bodies

The open comments given by key informants touched the following topics:

- More regional authority for CETA office (decentralisation)
- More coordination between stakeholders
- Improvement of industry awareness and readiness
- Better administration through CETA (less bureaucracy)
- Enhancement of quality of training providers
- Availability of learners (bad image of the industry)
- Better selection of learners
- Longer duration of the learnership
- Revision of learnership content according to industry standards and requirements
- Industry-related challenges (i.e. cyclical nature of work and small companies) as an impediment to the implementation of learnerships

In terms of the regional authority of the CETA respondents expressed the concern that “regions have different requirements”, but at the moment “all decisions are made central” and “regional needs get lost in the overall SSP”. Accordingly, a respondent requested: “Regional offices have to be given power for decisions and financing projects locally.”

Skills needs in the industry: With regards to skill needs in the industry those key informants, who indicated particular skill requirements, in general stated the same skills as given by the building and civil

companies and thus the needs entailed in the JIPSA list (refer to Section 4.10.1). The other respondents directly referred to the JIPSA list. In terms of numbers only half of the respondents gave estimates. The other half referred to the numbers officially established by the JIPSA list. Estimates from the individual respondents for NQF 2 level workers ranged from 800 to 54000. For NQF 3-4 they ranged from 500 to 32000. These numbers do not coincide with the previous findings (refer to 4.10.1) and further not with the JIPSA list. Accordingly, the industry representative organisations in part do not seem to have developed a coherent view on the actual skill shortage so far. However, what seems important within this context is a remark given by one respondent: “It doesn’t matter how high the skill shortage really is. We know it is high, definitely so high across all categories that we don’t need any further estimations on skills shortages anymore. We should use our time to train!” This remark coincides with the account of Freeman (2008, p. 3), who refers to the SETA review of the National Economic, Development and Labour Council (NEDLAC), which notes that problems with SETA sector skills research and planning have resulted “... in an over-focus on verifying skills demand at the cost of improving training numbers and quality”.

4.11 Differences in company groups

According to research objective 7, four out of the above five result categories (i.e. learnership satisfaction and appropriateness; provider learnership motivation, provider learnership competence and learnership outcome) were tested for group differences (involved/not involved; according to company size). Learnership processes in general were not included in the tests as they demonstrated such a high negative consistency among respondents that the probability of differences was unlikely to be measured. However, two items out of learnership processes, i.e. formal procedures and the financing scheme were tested. This was done, as with regards to the theoretical arguments on company-size and its influences on training (refer to Section 2.4.2.1) these processes were likely to show significant differences.

TABLE 4.30
DIFFERENCES ACCORDING TO INVOLVEMENT IN LEARNERSHIP TRAINING – BUILDING AND CIVIL COMPANIES’ RESULTS

	Involved			Not involved			Mann-Whitney P
	\bar{x}	Std. Dev.	N	\bar{x}	Std. Dev.	N	
Learnership satisfaction	3.8	1.0	34	3.9	1.1	37	.53
Learnership appropriateness	1.9	1.2	41	1.9	1.1	46	.87
Provider learnership motivation	3.1	1.1	40	3.3	1.1	45	.56
Provider learnership competence	2.9	1.1	40	3.4	1.0	46	.05
Learnership outcome	3.8	0.9	33	3.5	0.8	23	.20

Legend:

1 = positive end of the likert-type scale , 4 = negative end of the likert-type scale

The analysis investigated whether significant differences exist between respondents that were involved in learnership training or not (Table 4.30). Only learnership competence demonstrated significance with $p = 0.05$.

Hence, involvement in learnership training has a significant influence on the 'felt' provider learnership competence of the respondents and unsurprisingly the involved companies feel better prepared ($\bar{x} = 2.9$) than the not involved respondents ($\bar{x} = 3.4$). Contrary to the made assumption, that involvement in learnerships will also positively affect the respondents' perception in terms of the other items, the results reflected no significant effect. Consequently, the involvement in the training does not improve the companies' perspectives on learnerships.

TABLE 4.31
DIFFERENCES ACCORDING TO COMPANY SIZE – BUILDING AND CIVIL COMPANIES' RESULTS

	Company size									Kruskal-Wallis
	Small (1-49)			Medium (50-150)			Large (>150)			
	\bar{x}	Std. Dev.	N	\bar{x}	Std. Dev.	N	\bar{x}	Std. Dev.	N	p
Learnership satisfaction	3.8	1.0	42	4.3	0.8	13	3.5	1.2	14	.53
Learnership appropriateness	1.9	1.2	52	1.8	0.9	19	1.9	1.4	14	.92
Provider learnership motivation	3.2	1.2	20	3.4	0.8	19	2.9	1.1	14	.38
Provider learnership competence	3.2	1.1	52	3.4	0.7	19	2.9	1.1	14	.45
Formal procedures in setting up, dealing with the system	4.0	1.0	41	4.4	0.6	16	4.4	0.8	13	.48
Financing scheme of the system (levy-claiming system)	4.3	0.9	38	4.1	0.8	16	4.3	0.9	13	.43
Learnership outcome	3.7	0.9	32	3.9	0.7	10	3.5	1.0	13	.50

Legend:

1 = positive end of the likert-type scale , 4 = negative end of the likert-type scale

Further analysis investigated whether there would be significant differences in results according to the size of the companies. No significant differences were indicated (Table 4.31). As can be seen from both tables (Table 4.30 and Table 4.31), there are variations in the numbers of respondents underlying the individual measurements. The non responding participants were treated as missing values. Research objective 7 is achieved.

4.12 Differences in learner groups

In order to determine whether differences occurred with regards to employability of the learners based on the type of learners (18.1/18.2); completed/not completed; with employer/without employer during the learnership and in relation to the NQF level (i.e. research objective 8), subsequent analysis were performed. Table 4.32 indicates the significant results. Accordingly, 18.1 learners have a significantly higher chance of employment after completing their learnership than 18.2 learners. A result which is highly unsatisfying, but in this study must be seen together with two further influencing factors (not displayed in the table): Firstly, the fact that the respective 18.2 learners were those mainly affected by 'non completion' (68% as compared to 11% 18.1 learners) and secondly that 18.2 learners entirely made up the group of respondents, who stated not to have an employer. Unsurprisingly, these two factors 'completion' and 'involvement of an employer' also had a significant effect on the employability of the construction learners as displayed in Table 4.32.

TABLE 4.32
DIFFERENCES IN LEARNER GROUPS – CONSTRUCTION LEARNER RESULTS

Characteristic	Employed in construction	Not employed in construction	p
18.1	82% (n = 61)	18% (n = 13)	< 0.01
18.2	32%(n = 18)	68% (n = 31)	
completed	66% (n = 71)	34 (n = 37)	.01
not completed	36% (n = 8)	64% (n = 14)	
training with employer	77% (n = 74)	23% (n = 22)	< 0.01
training without employer	15% (n = 5)	85% (n = 29)	

Further analysis was performed in order to reveal differences in terms of employability by NQF level. Figure 4.7 indicates the NQF level of the learners significantly influences the employability of the learners (only NQF level 1-3 displayed as only one respondent at NQF level 4 and 5). The higher the NQF level, the higher the employability of learners ($p < 0.01$). Given the need of the industry for skills at particularly NQF level 3-4 this result is not surprising. What is interesting in this context is that this finding partly contradicts the results of the Baseline Survey (Jennings et al., 2005, p. 47), in which the NQF levels 1-3 had a higher level of employability (51%) than NQF levels 4-5 (19%). Again consistent with the current study though, NQF levels 6-7 had a considerably higher level of employability (95%) than all lower levels (Jennings et al., 2005, p. 47; McGrath & Paterson, 2007, p. 310), which does support the finding that higher NQF levels in general have a higher chance of employability. Unfortunately, the Baseline Survey does not reveal differences between the first three NQF levels, which would allow further analysis. Research objective 8 for the current study is achieved.

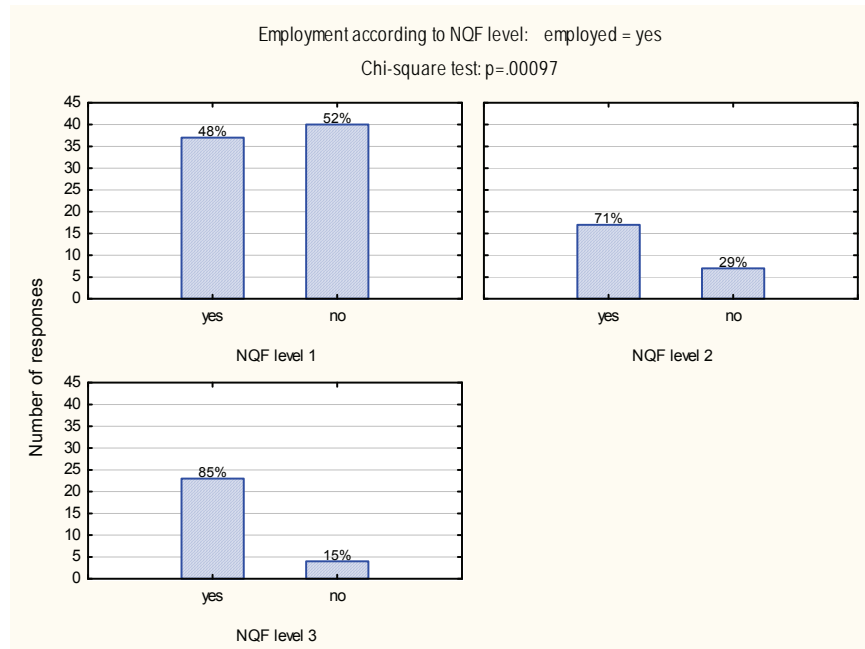


Figure 4.7: Employment status by NQF level

Conclusion: Chapter 4

The primary purpose of this chapter was to report on the main findings of the current study in relation to the respective research objectives, and thus the factors identified in the evaluation framework. Moreover, the findings for the individual groups were sought to be compared and contrasted with each other. The following chapter will discuss the general and specific conclusions drawn from the study's findings and will establish recommendations with regards to the observed stakeholder needs.

Chapter 5: Conclusions and Recommendations

5.1 Introduction

Chapter 4 discussed the research results obtained from the various stakeholder groups and gave a summarised view of the different perspectives. Areas of agreement and disagreement between the groups were highlighted. In this final chapter conclusions from the research results will be drawn and a detailed list of recommendations provided. In addition, the limitations of the study will be reviewed.

5.1.1 Limitations of the study

There are certain limitations to every research. For the current study the following limitations should be noted:

- The opinions represented in the study are focussed on the Western Cape and thus may be limited in their conclusions for the entire construction industry of South Africa. However, with regards to the influential role of the Western Cape in learnership training (refer to Section 1.5) and the consistency of the current learnership findings with previous other studies, a high degree of significance for the entire industry, and further learnerships in general can be argued.
- The selected media in the data collection process (i.e. web and telephone) limited the study to those respondents in the building and civil as well as the learner sample, who did have access to the respective communication options.

5.1.2 General conclusions

This study aimed to identify critical factors for the implementation of an efficient and effective learnership system in the building and civil industry. The major question that the current study aimed to answer was: What according to the stakeholders of the system is currently lacking to put an efficient and effective learnership system into place and what are the major obstacles they observe? The findings discussed in the previous chapter revealed a diverse picture of learnership implementation that brought to light both present challenges as well as achievements from the stakeholders' perspective.

As is to be expected in a context of low involvement of employers in the system there is strong evidence that the overall satisfaction of the providers (i.e. workplace and institutional) with the system is currently very low. Crucially though, the current low level of satisfaction is not a reason for considering the system inappropriate as such. The majority of respondents regard the system as an appropriate means for developing artisans for the industry and criticisms expressed by respondents are strongly related to issues of practical implementation, rather than to the system's general conception. Overall, the majority of

respondents perceive learnerships as a training mode that does give them the opportunity at hand to enhance skills in the industry and empower employees. The structured, holistic form of learning (combining both theory and practice) and the practical applicability of the training are the most striking features herein for the companies and training providers. In general, the providers despite their present dissatisfaction demonstrate a fairly high level of motivation and thus intention to get or stay involved in the learnership system. This motivation especially in the case of the employers is clearly heightened by the current skills shortage in the sector of approximately 7 500 artisans per year across all major trade categories (DoL, 2007), which was also confirmed by the current study. However, the generally expressed motivation for learnerships is affected negatively by the fact that providers, particularly employers do not feel adequately prepared for learnerships. Across the entire study companies demonstrated a high lack of awareness and understanding of learnerships and what they entailed in terms of implementation. Furthermore, institutional and workplace providers perceive the processes of actual implementation of the system as highly bureaucratic, in some cases ineffective, and certainly involving too much paperwork. The majority of providers feel they require more support from the CETA in terms of actually implementing learnerships (i.e. learnership competence) and a more simplified, 'user-friendly' structure of learnership processes. A positive observation is that this support is requested from the CETA. The level of learnership competence among small or medium-sized employers was found to be significantly lower than that of larger companies. However, the other results did not significantly vary with the size of the company nor were they positively or negatively influenced by the fact that a company was already involved or not involved in learnerships. Thus, all employers, independent of their size and involvement in learnership training, demonstrated the same level of satisfaction or motivation for learnerships. Furthermore, their perceptions on the learnership processes as well as the current outcome of the system did not differ significantly.

Significantly in terms of effectiveness (i.e. outcome), the system holds promise to the primary beneficiaries of the learnership system, and thus the learners. The learners demonstrated a high level of overall satisfaction and generally appreciated the opportunity for skills development they have been given by the system. Primary inefficiencies as revealed by the learners are currently perceived in the financing of training, as some learners could not complete their learnership due to financial controversies between the provider and the CETA and delays in the processing of their certificates upon qualification. Once again it is positive to note that the learnership is generally perceived by learners as having a very positive impact on employment and moreover on income and career prospects. Across all groups there is positive evidence that the learnership does achieve one of the most important outcomes, i.e. the employability of learners. The study found that the system achieves a very high level of employment, with 61% of the responding learners being employed in construction. The level of employment varies significantly under the influence of certain factors (i.e. 18.1/18.2; completion/non completion; involvement of employer in the training/non involvement of an employer, NQF level). Thus, 18.2 learners, who had completed and were trained with employer involvement (i.e. not pure formal training programmes), had a higher chance for employment than those not having completed (due to the discussed financial problems) and being trained without employer

participation. In addition, the employment level significantly increased with the NQF level of the acquired qualification.

However, despite the positive outcome in terms of employability, the system in the opinion of the respondents does not yet deliver a satisfactory level of applied competence, and consequently is not effective in achieving the actual work readiness of learners. This result will certainly be required by the labour market in the long term. Respondents feel that more technical and practical competence needs to be trained over a longer period of time, if adequately skilled artisans are to be developed for the industry.

5.1.3 Specific conclusions: Primary obstacles observed

Given the fact that the system is partially effective in terms of outcomes (i.e. employability), the major obstacles currently observed across all stakeholder groups are primarily related to the efficiency of the system, and thus issues around the practical implementation of the system. These issues lead to an unsatisfactory outcome in terms of applied competence. Overall and for the individual groups the following major obstacles (as is aimed for in research objective 9) could be identified from the quantitative and qualitative findings. These obstacles are only to be regarded as a selection of primary obstacles, due to their dominant appearance in the results across the different stakeholder groups. To view all constraints a close review of the individual discussion of results is recommended.

Overall (generally perceived obstacles, observed by at least two stakeholder groups):

- CETA services and processes:
Particularly practical learnership guidance/support for providers, financial controversies as well as bureaucratic/ineffective administration (for example WSP, portfolio of evidence, certification, etc.)
- Learnership content:
No longer/not meeting industry requirements; no consistent training process on HIV/Aids related issues.
- Duration of artisan training:
Too short, especially practical
- Recruitment and selection of learners, particularly 18.2 learners:
Selected candidates with low interest or aptitude for the industry; drop-outs due to unsuitability of candidates.
- Availability of suitable candidates:
General bad image of the industry; low attractiveness for candidates.

Building and civil companies:

- Availability/access to information on the learnership system:
Too little in terms of practical guidance/implementation support.

- Financing scheme and formal procedures:
Low trust in restored financial situation; Levy-claiming (i.e. WSP) and other procedures too bureaucratic and too much paperwork involved.
- Quality of formal training:
Not always on par with industries' latest developments.

Learners:

- Certification:
Delay in the processing of certificates.
- Financial controversies:
Leading to non completion of learners.
- Employer participation:
18.2 learner training without employer participation.
- Sequence and duration of training:
Periods between learning units too long; preference for more continuous training.
- Guidance on further training/career opportunities:
No follow-up measures on training/career opportunities after completion.

Accredited Training Providers:

- Teaching and learning material:
No standard for practitioners, learners and assessors guides available.
- Financing scheme and formal procedures:
In part sufficient funds not available; formal procedures keeping the facilitators occupied with too much administrative work (e.g. Portfolio of Evidence).
- Quality of practical training:
Practical employer training not always happening according to curriculum.
- Training practitioner/Instructor education:
No process in place for quality assured training practitioner/instructor education.

5.2 Recommendations

As can be seen from above, a number of obstacles have been identified, which certainly have to be removed if the learnership system is to become efficient and entirely effective for the industry. The following section will thus make proposals regarding possible interventions in the system (i.e. research objective 10).

5.2.1 General recommendations

CETA support, services and processes: Given the key role of the CETA for promoting and governing the system in the sector one of the major obstacles currently observed is the lack of support given by the CETA as well as its general services and processes. As perceived by the stakeholders the CETA has not yet delivered the support required by them, particularly in terms of the actual implementation of learnerships (i.e. practical guidance for employers and providers). The question that arises in this context is whether the CETA is currently able to deliver such a support. As revealed by the study's findings the CETA in part may not be adequately staffed to deliver the personal and individual support the industry requests and requires. High rates of staff turnover particularly in the management of the CETA, which was only recently demonstrated by the resignation of the CEO and the Chief Operations Officer in February 2008, have further weakened the institutional knowledge base and severely hampered a consistent operation and strategy on service delivery, even though a new CEO has already been appointed by March 2008 (CETA, 2008c).

Furthermore, the bureaucratic processes involving excessive paperwork not only bind the time of providers, but also of CETA personnel. This time could be used for much-needed, practical support in order to get the industry involved. One important recommendation is thus that all processes (particularly the processes highly criticised by the providers, i.e. WSP and Portfolio of evidence) should be closely investigated for the potential of putting them into a more 'user-friendly' format. With a reduced administrative burden for all parties involved, more time would be available for actual training, support, services (for example issuing certificates) and further ensuring the quality of learning on site. This personal quality control for training is certainly highly important given the CETA's past experiences with fraudulent claims, and cannot be replaced by other pen-and-paper-controls. Thus, a balance between proof-on-paper and personal inspection is recommended for the design of future processes. In order to increase acceptance in the industry for the new processes, these could be developed in discussion or cooperation with key representatives from the industry (for example, MBA, SAFCEC, BCC, etc.).

Whether, after a reduction of the administrative load, additional capacity would still be required must be further investigated at the appropriate time. What definitely should be taken into account are the particular needs and features of the construction industry discussed in this research, which certainly differ from most other, more sophisticated industries (e.g. the financial/insurance sector). As revealed by the study, the industry in large parts is neither equipped with the competence nor the capacity to deliver learnership training without external support. The industry has not been under particular pressure for training over a long period of time, and due to its working mechanisms is particularly hard to reach through electronic media (for example email/web-survey, i.e. slow response). Thus, if the industry is to get involved in the system the working procedures and capacities of the CETA have to take these particularities into account very seriously. Such a re-consideration process might lead to the conclusion that the CETA may have to be equipped with additional resources (both financially and human) at least for an initial step in order to

enhance employer participation (refer to Section 5.2.2.1). The question that has to be asked in this context is: Will the strict limitation of the CETA's operating budget to 10% of the collected levies in the sector be adequate? What should also be investigated is whether it is appropriate to empower the regional offices by delegated authority in order to enhance their ability to better accommodate regional needs.

Learnership content: As acknowledged by providers and key informants (from the CETA and leading industry associations/bodies) the learnership contents in the various NQF levels are no longer industry-suitable (either partially or fully). Results suggest that for some trades no learnerships exist at all. An urgent analysis and revision of all learnership contents is thus strongly recommended. This process needs to be initiated by the CETA with strong involvement and participation of key representatives from employers and institutional providers in order to ensure that revised contents will serve industry requirements. The currently proposed new Organising Framework for Occupations (OFO) with its Quality Council for Occupations and Trades (QCTO) in the structure of the NQF may already recognise and address this issue adequately as it does not only plan to link every developed qualification to an occupational title as identified and required by the labour market, but also involves communities of expert practice (i.e. knowledgeable persons, specialists, practitioners) for the generation and quality assurance of these qualifications (DoE & DoL, 2007; Vorwerk, 2007b). Nevertheless, it is suggested that this process is commenced independently of the NQF revision, as it cannot be predicted how long the proposed policy will need to become legislation and the new structures to be set up. The inadequacy of contents as strongly evident from the current research is already acknowledged today and therefore should be addressed as soon as possible in the existing framework. In order to ensure a consistent process on HIV/Aids training in the industry the inclusion of a separate unit standard for all construction-related qualifications is proposed.

Duration of artisan training: Consistent among all stakeholders was the view that the duration of training for developing artisans (NQF level 3-4) was too short, particularly the practical part of the training. On average providers recommended a minimum length of 24 months up to 30 months as the concept of placing a sequence of learnerships towards the qualification of an artisan did not seem to be translated into practice. It is thus highly recommended, that the length of training will also be considered in the revision process of the qualifications. However, as the proposed new framework is planning the introduction of national occupational awards that will straddle learning across a number of NQF levels, it is assumed that there will no longer be a need to construct a series of qualifications eventually culminating in the equivalent of an artisan qualification. Regardless of this development the length of training for an occupational award in the construction industry referring to artisan status should be at least 24 months.

Recruitment and selection of learners, particularly 18.2 learners: Both learners and providers felt that some learners, particularly 18.2 learners, were equipped with neither the adequate skills nor the aptitude for the industry. Accordingly, the main reason for drop-outs across all stakeholders was the unsuitability of candidates. In order to avoid this phenomena and furthermore an unnecessary frustration among learners and providers, it is proposed that future recruitment and selection processes in governmental programmes,

follow a strict procedure, that should at least include the following elements: Introduction to the learnership (What are the benefits, career opportunities and what is expected from the learners?); basic tests on literacy and numeracy, visit on site with practical insights/trials on construction work and a short interview on motivation and interests. In order to achieve a greater acceptance in the industry for 18.2 learners (trained through these programmes), it is recommended that representatives from the industry can view and provide feedback on the newly designed selection process, and be given the opportunity to take part in an actual selection process.

Availability of suitable candidates: Given the general poor image of the industry, the sector struggles to attract and find suitable candidates. This image can only be addressed in a concerted effort between employers, providers and the CETA. Training and career opportunities should be provided as a way to enhance the sectors' image in the long term. The Go-for-Gold programme initiated by construction employers in the Western Cape in 1999 in cooperation with the Western Cape Education Department is a step in the right direction. This was a response to the critical shortage of candidates from disadvantaged communities with the necessary grounding in science and mathematics for entry into the construction, building sciences and engineering fields. The project provides extra lessons and additional supervision for schools in these areas and enables learners to be placed in construction (Blaine, 2008). Other possibilities for enhancing the attractiveness of the industry will be discussed in Sections 5.2.2.1 and 5.2.2.2.

5.2.2 Stakeholder specific recommendations

Apart from the overall recommendations the following interventions with regards to the specific requirements of the individual stakeholder groups are proposed.

5.2.2.1 Building and civil companies

Availability/access to information on the learnership system: One of the largest constraints to an efficient and effective learnership system identified by the study is the persistently high uncertainty of the industry in dealing with the learnership system. Undeniably, the system cannot become successful without the participation of employers. Various initiatives from the CETA and industry-organisations have attempted to enhance employer awareness and participation, but as is evident from the study's findings the measures applied have not brought about broader success in terms of understanding nor participation. An appropriate mechanism will thus be needed to remove uncertainties and achieve the necessary buy-in from employers.

One possible solution may be the introduction of 'Practical Learnership Consultants'. As the findings suggest, companies require a lot more hands-on support and practical guidance to implement learnerships due to constrained competence and capacity in terms of HR related issues. This may be achieved through information visits by learnership consultants, who personally contact the companies, visit and guide them on site. In order to convince employers of the learnership system the consultants would be equipped with a

'Learnership implementation toolkit' including all relevant information for employers to make a decision about getting involved. The learnership implementation toolkits would need to be structured in an 'employer-friendly' way and include a compact overview of learnership essentials, for example:

- Starting of: What you need to know about learnerships (e.g. general definitions, benefits and costs for employer)
- How can I find a learner? (e.g. recruitment methods, useful addresses; learner database with potential candidates)
- How do I know if the candidate is the right one? (examples of assessment material for selecting the right candidate)
- I know which learner I want to train. How do I proceed? (e.g. information on next steps, such as a learnership agreement, overview of accredited training providers in the region, WSP, etc.)
- And how do I train the learner? What you need to know about the actual training. (e.g. information on the first day of the learner at work, basic knowledge on training and learning, the importance of a mentor, examples for designing a learning schedule, how to give regular feedback and secure an effective link with learning at the institutional provider, etc.)
- I am experiencing problems with my learner. What can I do? (e.g. information on how to deal with motivation/discipline, drug, HIV/Aids related issues, etc.)
- My learner has completed. What now? (e.g. information on measures for successful learner retention and additional training opportunities)
- All forms you need for a learnership (an overview and examples of all essential forms)

The learnership consultants could be employed either full-time or part-time by the CETA or work for them on a consultancy basis. In order to test the chances of success of such a measure, a pilot project with e.g. 4 learnership consultants could be kick-started in one of the provinces (e.g. the Western Cape): The learnership consultants, who would have to be carefully selected by the CETA (prerequisite: HR/in-depth learnership knowledge and understanding of the industry), would need to receive clear working targets (e.g. numbers of businesses to be contacted, company visits per day and signed employer agreements for participation). Monthly reporting and weekly meetings would secure a close control of the project and further ensure a regular exchange on occurring problems and possible solutions between the guides/consultants. The actual work of the learnership consultants could be launched by events in cooperation with the industry-organisations (e.g. cidb, BCC, MBA, SAFCEC, etc.) and under strong media presence. The overall success of the measure (i.e. increase in employer participation rates) could then be evaluated after 3 months. The benefit of this measure would be that compared to the concept of external skills development facilitators (SDF), the learnership process would remain solely in the hand of the employer. The learnership guides would only be the personal contact person for the employer in case problems or questions occurred, that could not be solved by the learnership implementation toolkit. Furthermore, the use of consultants (employed by the CETA), who regularly visit their clients on site could significantly reduce the opportunity for fraudulent claims by providers. The possible applications of the learnership implementation toolkit are

diverse: Apart from handing it out in paper format they could also be sent out via email or normal mail to interested employers. The industry organisations and accredited training providers could also be used to disseminate them to interested clients. Another option would be to make the material available on the CETA web-site for free-download. This would ensure that the material could be regularly updated without too much cost involved.

Other measures to increase the awareness and understanding of (and thus involvement in) the industry could be:

- **Learnership exhibition/information stands** by the CETA in places, where construction companies regularly appear in relation to their work, e.g. material suppliers, building warehouses, large constructions sites (e.g. Stadium construction for 2010), etc. One very interesting initiative in connection with the stadium construction in Cape Town is now supported by the CETA Western Cape office. In cooperation with the architects and the building companies a visitor centre is in the process of being planned. This visitor centre primarily serves the function of informing the public about the actual stadium construction and its progress, but will also incorporate information on the industry in general and training opportunities. This is an initiative that certainly does not only have the potential to attract new candidates for the industry, but also to inform employers on their possibilities of implementing learnership training.
- **Information events on learnerships** organised in cooperation with the industry-organisations (e.g. MBA, SAFCEC, etc.). The events could be announced via sms and email.
- **Announcements for the funding of learnerships** by the CETA should not only be published in newspapers, but also via sms, website and email.
- **Incentives for participation:** In order to provide further incentives for participation, the cidb could reward learnership involvement either with a special label displaying the participation of a contractor in learnership training or with a credit reward to the companies' rating within its contractor registry.

For all these measures the CETA databases on employer contact details have to be generally updated and then continuously checked for correctness on a regular basis. Possible sources for updating the databases could be the database from this research as well as the databases used for the current study (i.e. cidb, MBA, SAFCEC, SARS, the internet).

Financing scheme and formal procedures: As reflected in the employers' findings, there is currently a low level of trust in the financial systems of the CETA due to the experienced past irregularities. This trust will need to be restored over time. One important step has already been made by the CETA in introducing stricter financial administration and control systems.

In terms of the WSP and other formal procedures the urgent need for user-friendly designs has been discussed. Particularly for the WSP the availability not only on the web, but also on paper and in a reduced format, is suggested. Only then will employers, particularly small- or medium-sized companies perceive the learnership process as being worth the effort and will finally consider taking part. What further may be considered is the complete abolition of WSPs in favour of paying out mandatory grants only on the submission of ATRs. This would not only tremendously reduce the administrative load involved in grant claims for employers, but would significantly maximise the actual facilitation of training as grant payments would only be going towards effectively performed training throughout the year instead of 'only planned' training as supported by the submission of WSPs.

Quality of formal training: Results show that employers are not yet generally satisfied with the quality of formal training as it does not always include latest developments in the industry. It is assumed that the proposed new development of occupations under the involvement of experts from the occupational field will address this issue to some extent. Nevertheless, a closer collaboration between training providers and employers on a more regular basis is important. A specific development, that deserves consideration in this context, is the establishment of meetings (for example, quarterly or bi-annually) between learnership employers and accredited training providers as was practised by one training provider in this research. The meetings could be organised by the providers and the respective agenda could be filled equally by both employers and providers.

5.2.2.2 Construction learners

Certificates: Despite the fact that the current administrative load has certainly slowed down processes in the CETA, the present delay in the processing of certificates as revealed by the study is highly unacceptable and has to be addressed immediately. The inefficient certification process further more undermines the importance of an urgent revision of learnership processes, particularly the assessment process requiring a multitude of individual assessments and the development of a portfolio of evidence. What may be a solution here is the reintroduction of a final, integrated summative assessment (similar to the previous trade test or Board exams, as proposed by Vorwerk, 2007b). This would lead to a simplified assessment process for all stakeholders involved and would certainly speed up the process of certification upon qualification.

Financial controversies: Results show that due to the CETA's financial problems, a number of learners could not complete their learnership. What is suggested is that the learners, who weren't able to complete, be given priority to attain their qualification as soon as new financial means are available for training.

Employer participation: As revealed by the study many of the 18.2 learners were trained without actual employer participation (i.e. practical work experience). This circumstance could not be avoided given the

high need for unemployed training and the low willingness of employers to take part in training. However, the study's finding that employer involvement significantly impacts the employability of the learners once again demonstrates how important measures for enhancing employer participation are, if unemployment rates are to be effectively reduced.

Sequence and duration of training: Learners demonstrated a clear preference of continuous training sequence with a balanced split between practical and formal training. The duration between practical and formal training periods should not be too long so that overall the learnership can be completed in a reasonable time. Strategies for addressing this need despite the deliberate flexibility of the system and the working needs of the companies must be further investigated.

Guidance on further training/career opportunities: Learners in many cases appreciated the opportunity to develop their skills and would like to enhance their skills even further. According to learner responses this aspect has not yet been sufficiently taken into account, neither by providers nor the CETA, as there were no follow-up measures on training/career opportunities after completion. Training interventions for the pre- and unemployed are certainly more likely to have an impact if career guidance during and after the actual measure is provided. What is suggested is that a brochure be developed by the CETA, which illustrates the training and career opportunities given after completing a learnership. Furthermore the brochure should contain details of a contact person from which individual career guidance can be obtained. This brochure could either be handed out towards the end of the formal training by accredited training providers or could be disseminated by the employers themselves. A brochure on career opportunities in the industry could also be useful in attracting new candidates for learnerships. In order to attract new candidates it could, for example, be disseminated in schools in combination with job application training for learners provided by a HR staff member of a construction company or the CETA.

5.2.2.3 Accredited Training Providers

Teaching and learning material: The fact that no standard of teaching and learning material has been made available for providers (or to be more precise that no support could be obtained, when learnerships were introduced) has caused tremendous difficulties in setting up effective training and is criticised by all providers. Much more support is required in this regard as the own development of material does not only take time away from the actual training of learners but further implies the danger that developed materials do not meet learning and training standards required on a national level. What is recommended is that the new QCTO besides their work of quality assuring qualifications could also be used for quality assurance in terms of teaching and learning material. The QCTO in this function could develop basic standard materials for the industry, which could then be individually adjusted by providers according to needs. This would, on the one hand, ensure a national standard, that would facilitate the movement of learners between provinces

(e.g. from the Eastern Province to Gauteng) and, on the other hand, would still maintain the flexibility of the outcomes-based learning approach. If this is not possible, other institutions may be suitable for developing a respective standard, e.g. cidb, industry-organisations. It is very clear that this role should be played by an institution with an overarching function to the industry. Otherwise, competing interests in the industry or from the providers would undermine the acceptance of the standard. Furthermore, the function has to be performed by a separate team in an institution that represents both knowledge on training methodology (i.e. institutional providers) as well as industry expert knowledge (i.e. employers). It would be necessary to have a separate unit performing solely this function given the importance and magnitude of the task, which certainly cannot be performed as a task besides other activities. Without a coordinated initiative from the CETA though, the chances of success for the establishment of such a unit are considered relatively low. What is encouraging is that the CETA, according to their latest annual report (CETA, 2008b), has allocated funds (approximately R1.2 million) towards a project termed 'learning material' and thus seem to have acknowledged the need of providers in this area.

Financing scheme and formal procedures: Results show that sufficient funds were not available for providing formal training, as the providers had not been paid. This situation is most probably related to the difficult financial situation of the CETA discussed previously, but nevertheless should be investigated by the CETA. Regarding processes again the need for a simplification must be stressed, particularly the extensive design of the portfolio of evidence. Despite the need to provide sufficient evidence for the applied (i.e. occupational) competence of the learner a process involving less paperwork has to be developed. As recommended above the introduction of a final, integrated summative assessment should thus be considered.

Quality of practical training: The accredited training providers perceived some of the practical training (as delivered by employers) to be sub-standard. As suggested earlier a regular meeting between employers and training providers could provide a solution here. Meetings like this would also enhance communication regarding what happens to the learners after completing their training at the institutional provider, and how employable they are by the companies. An additional solution might be the introduction of a log-book (as practiced by one provider in the study), in which the employer has to fill in all learning units trained during the practical training phase. The currently proposed revision of the NQF may further address this concern to some extent as it intends to describe workplace experience for all occupational qualifications in much fuller and more exact terms than previously (including the structure, duration, range and scope of the work experience). Furthermore, the developed curriculum will structure knowledge, skills and work experience required for the occupation and will provide clear stakeholder responsibilities for each learning component (Vorwerk, 2007b).

Training practitioner/Instructor education: Respondents criticised the fact that there is no coherent, quality assured process in place for the education of training practitioners/instructors. This process is mainly left up to the providers and implies the danger that not all professional trainers are equipped with the

technical skills and knowledge of training methodology required for high quality training. In order to ensure a coherent qualification process it is thus recommended that a learnership for trainers/instructors be developed, which has to be completed before being able to be a fully recognised training practitioner for the industry (similar to Assessor training, registration and certification). In order to enable the development of trainers/instructors, while already being involved in training processes at a provider (without full recognition) the learnership should be designed to include a fairly large component of workplace experience.

5.2.3 Overall recommendation and future research

Research is only a tool that can identify and verify common areas of concern. Consequently, it can point to solutions that appear appropriate under deliberate consideration of the findings. It can thus be a catalyst for change. However, it cannot bring about solutions and the much needed and anticipated change itself. This can only be achieved through consequent action upon the research findings, not only by the CETA but by all stakeholders involved in the system. The most important recommendation of this research is thus that these research findings will actually be utilised for action so that further research can focus on evaluating, the changes that these actions have brought about.

Some of the areas stated above have been criticised repeatedly by various stakeholders since 2003 (CETA, 2003). The experiences from recent years have left stakeholders across the board, i.e. providers and many CETA staff members frustrated and with little expectation for change. But focussing on past mistakes and problems will not provide future solutions, for neither side. The current skills shortage provides a unique opportunity for everyone to start afresh. As the industry at present is feeling the pressure and a need to train, measures for getting the industry involved will now certainly be more successful than they were, when the new system was introduced. In this sense, the current skill shortage, which to some may seem a reason to relinquish the system (as it has failed) can now be a potential vehicle for putting the learnership system back on track again.

What is abundantly clear, is that efforts for getting the industry involved can only be successful, if the employers accept their responsibility to train and are prepared to deliver the practical part of the training, which as demonstrated by the research is indispensable for developing adequately skilled workers and artisans for the industry. The best solutions will fail if the industry resists accepting such a responsibility and continues to demonstrate reluctance towards the system. The measures taken by the CETA for change thus will need support from both employers and the industry organisations. What is also clear is that past mistakes and non reaction to certain issues require an initiative from the CETA to draw the providers' interest back to the system again. Providers and the industry need to see a change in processes and this change needs to be radical and fast. It is thus recommended that the CETA as a response to this research initiates, for example, a stakeholder forum with key representatives from the CETA and the industry, which will address the identified priorities. Such a forum must include draft solution concepts already developed by the CETA, stakeholder discussions on the identified solutions and, most importantly, a detailed action plan

defined in cooperation with the industry, which entails clear responsibilities and timelines for all parties involved. Changes and improvements then need to be made transparent to the wider public by both the CETA and the industry organisations (for example by email, the newspaper, newsletters, etc.). As revealed by a current Communications and Stakeholder Liaison Strategy publication of the CETA (CETA, 2008d) the CETA has already identified the need to proactively liaise and communicate with its stakeholders, and thus in a first measure has made its web-appearance more user-friendly. What is clear though is that one concerted initiative in this regard will most certainly not suffice.

The second most important recommendation of this research is to set a monitoring and evaluation system in place, which tracks the impact of changes on the system. This is critical as only such a constant review of the system will inform future policies and will make changes transparent to everyone involved. The absence of continuous research and measurement data apart from numerical information on trained learners (i.e. outputs), makes it difficult to make progress and successes (such as applied competence, employability/further training opportunities, i.e. outcomes) visible, which is so important for enhancing the recognition and general standing of the learnership system. Above all, it can demonstrate the actual impact of the system. It is proposed that the evaluation framework of the current study is used to set up such a regular monitoring system in the CETA. Regular measurements could include an adapted approach of the survey, that would concentrate on the measurement of the following key components: Learnership satisfaction (measured by scale); Learnership processes (only the following issues: Which processes are appropriate?; Which processes need to be revised?); Learnership competence (measured by scale and which support has helped?); Learnership outcome (applied competence (measured by scale); employability (measured in percentage). Measurements could be performed twice a year and include the opinions of employers and accredited training providers. The most appropriate medium for these measurements would probably be the web using the already programmed platform of the current study. For the group of learners measurements should be performed on completion. Here a short phone-survey is suggested. Results of the measurements could then be communicated to stakeholders via the web and email. Hence, future research should primarily focus on developing a sound basis for a continuous improvement of the system. Further, it should focus on a close analysis of the potential causal relationships between the different factors included in the current learnership evaluation framework.

Every new system requires constant review and adjustment, if it is to be successful over time. No perfect system can ever exist from the beginning and this is particularly to be expected of a national intervention on this scale and of this complexity. In closing, it thus becomes clear that Mandela's (1997) introductory words to this research provide the two most important recommending principles for an efficient and effective learnership implementation, i.e. (1) the constant review of efforts and thus identification of problems as well as (2) finding creative solutions to these problems. The problems have been identified. Now is the time for creative solutions.

5.3 Conclusion

In this chapter general and specific conclusions were drawn in order to reveal the major obstacles currently perceived for putting an efficient and effective learnership system into place. Furthermore, recommendations were given, which identified possible solutions to the present constraints.

Even though the study particularly concentrated on the learnership system in the construction industry, some of the obstacles discussed can be seen from the proposed revisions of the NQF may also be relevant in other sectors. Hence, the solutions suggested may contribute arguments and ideas to the general implementation process of the learnership system at national policy level. Overall, the current study established a base model for evaluating learnerships. Accordingly, it does not only provide a tool for future evaluations in the construction industry, but for learnership evaluations in all national sectors. It is thus highly relevant in the broader context of enhancing and improving skills development in South Africa.

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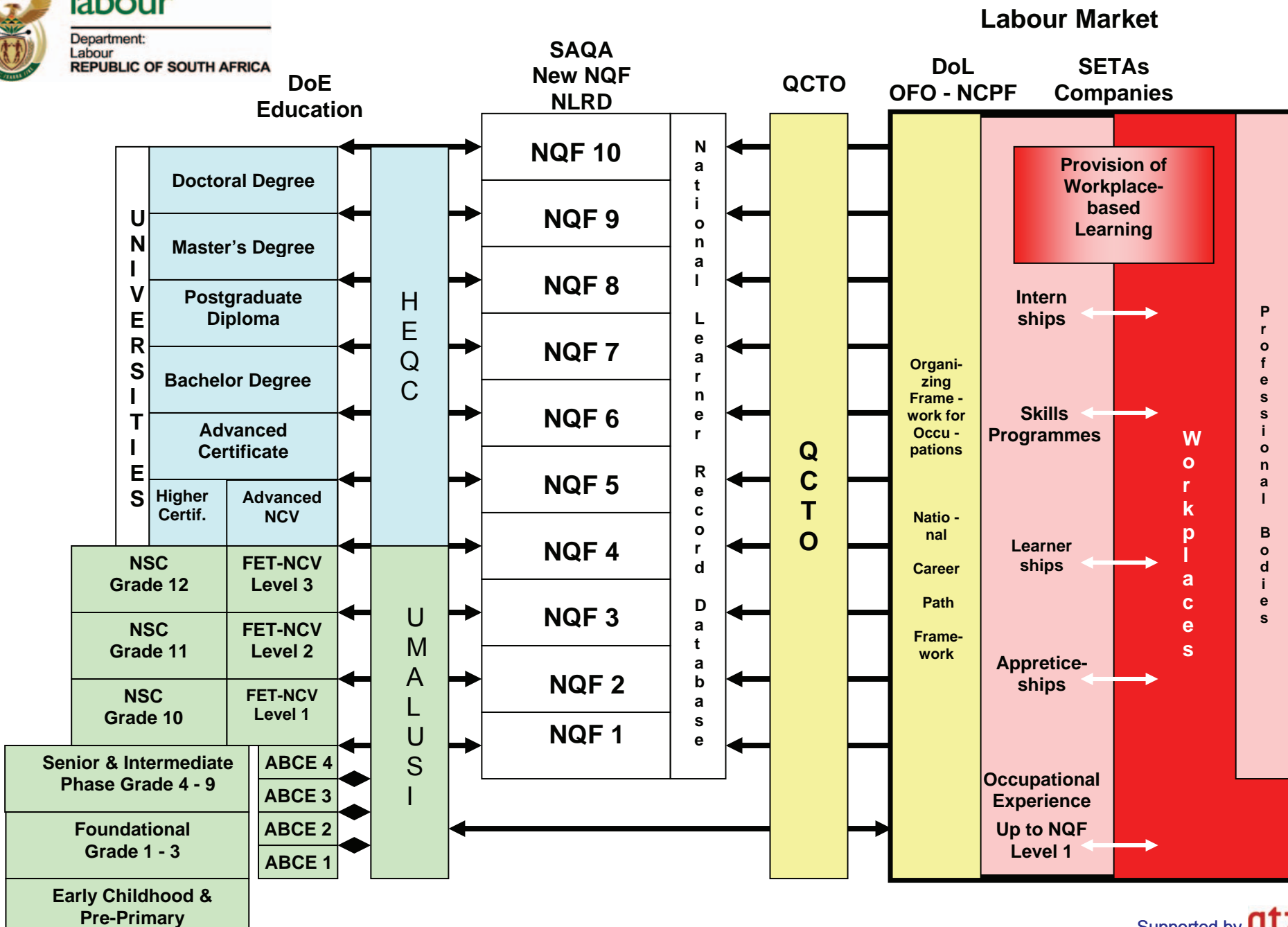
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Research Framework (Stages, instruments and time lines)

Stage	Task	Involved parties	Instrument applied	Time line
Stage 1	Critical literature review and unstructured personal interviews with various stakeholders to provide insight to narrow the focus of the study	<ul style="list-style-type: none"> ▪ Research conductor ▪ GTZ, CETA ▪ Building companies ▪ Accredited Training Provider 	Literature review Personal interviews	April – May 07
Stage 2	Designing a first draft of structured questionnaires for the different stakeholder groups	<ul style="list-style-type: none"> ▪ Research conductor ▪ University 	Literature review, Interview material, Structured questionnaire	April-May 07
Stage 3	Screening the questionnaires and giving feedback on content and methodology	<ul style="list-style-type: none"> ▪ University ▪ GTZ, CETA, Construction Industry Development Board (cidb) 	Personal interviews	May-June 07
Stage 4	Implementing the agreed upon questionnaire on a web-platform, programming data base for statistics.	<ul style="list-style-type: none"> ▪ Research conductor, web-programmer ▪ University, Statistical Department 	Web-programming	May-June 07
	Pre-testing the questionnaire in every stakeholder group	<ul style="list-style-type: none"> ▪ GTZ, CETA, cidb ▪ Building companies ▪ Accredited Training Providers ▪ Learner 	Pre-test	June-July 07
Stage 5	Final design of the questionnaire	<ul style="list-style-type: none"> ▪ Research conductor, IT 	Structured questionnaire	June-July 07
Stage 6	Conducting the survey (web-based, phone, personal interviews)	<ul style="list-style-type: none"> ▪ Research conductor 	Web-survey, Telephone survey, Interview survey, Key informants	June-September 07
Stage 7	Analysing and interpreting the data	<ul style="list-style-type: none"> ▪ Research conductor ▪ University, Statistical Department 	Statistical programmes	July-November 07
Stage 8	First draft report and feedback-discussions with the project team	<ul style="list-style-type: none"> ▪ Research conductor ▪ University, GTZ, CETA 	Report (draft)	December 07- February 08
Stage 9	Finalising the report	<ul style="list-style-type: none"> ▪ Research conductor ▪ University, GTZ, CETA 	Report	February- March 08
Stage 10	Publishing the results to all stakeholder groups	<ul style="list-style-type: none"> ▪ Research conductor ▪ University GTZ, CETA 	Report	April 08

Data collection schedules.

Western Cape Provider	Date of interview/input and time
Tjeka Training Matters (Pty) Ltd	18.06.07 (10:00-12:00); 27.06.07 (13:00-13:45)
Northlink College (Belhar Campus)	20.06.07 (9:00-11:00); 17.07.07 (electronically)
Corobrick Building Training Centre	25.06.07 (11:00-12:30)
AGR National Training cc	25.06.07 (12:35-14:00)
Boland College (Paarl Campus)	26.06.07 (10:30-12:00)
LSA School of Technology (Pty) Ltd	18.07.07 (electronically)

Additional Providers	Date of input (electronically)
<ul style="list-style-type: none"> ▪ Siyakha Skills Centre (Eastern Cape) ▪ RBPM Service delivery & Training partner (Gauteng) ▪ Tshwane North College (Gauteng) ▪ Primedia Skills Training Centre (Gauteng) 	<ul style="list-style-type: none"> ▪ 17.07.07 ▪ 18.07.07 ▪ 26.07.07 ▪ 27.07.07

CETA	Interview, input date
Western Cape Manager	23.07.07 (14:00-15:30)
Training Operations Manager	20.07.07 (electronically)
Chief Operations Officer	06.09.07 (electronically)
Organised employer bodies	Interview, input date
South African Federation of Civil Engineering Contractors (SAFCEC)	27.06.07 (14:00-14:30)
Master Builders Association (MBA)	28.06.07 (12:00-13:00)
Black Construction Council (BCC)	27.09.07 (9:25-10:25)
Organised Labour	
Building Wood and Allied Workers' Union of South Africa (BWAUSA)	17.07.07 (14:00-14:30)
Government Departments including Statutory Bodies	
Construction Industry Development Board (cidb)	19.09.07 (18:00-19:00); 21.09.07 (electronically)
Department of Public Works, Western Cape	20.09.07 (14:00-15:30)

Learnerships in the construction industry

Questionnaire on the efficiency and effectiveness of the current system at worker and artisan level
(NQF 2-4)

A General satisfaction

How satisfied are you with the newly established learnership system with regards to your industry?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state your **major reasons** (please state a **maximum of 3 reasons**):

- 1.
- 2.
- 3.

Do you regard **learnerships** as an **appropriate means to develop artisans** for the construction industry?

definitely	probably	fairly likely	probably not	definitely not
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Why? _____

B Provider learnership competence

How well do you currently **feel prepared for conducting effective learnerships** in your company?

extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to:

	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Technical competence					
Professional knowledge/expertise to train the profession	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Methodological competence	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Recruitment methods for attaining, finding candidates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper assessment of candidates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducting the training (i.e. effective methodology, training methods for training the intended curricula)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence					
Guiding and mentoring the learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dealing with occurring problems during the learnership such as (discipline/motivation, drugs, HIV, learning problems)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Support required?

I would appreciate/be open for support in these matters: yes no

By whom would you appreciate support?

CETA CIDB other?: _____ (please specify)

In which specific matter? _____

C Learnership processes

Effective learnerships need efficient processes: How would you rate the following aspects:

	excellent	very good	good	fair	poor
Availability of information on the learnership system and its benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of suitable candidates (with basic skills required in the industry and the necessary motivation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal procedures in setting up, dealing with the learnership (WSP etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financing scheme of the system (levy-claiming system)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support given by the CETA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	excellent	very good	good	fair	poor
Regional availability of formal training by accredited providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of formal training delivered by the providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entire duration of the learnership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of practical training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customised time-schedule for formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Process of assessment and certification (through accredited assessors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your comments with regards to processes: _____

D Provider learnership motivation

How high would you rate your current motivation in getting/staying involved in the system?

extremely high	very high	high	not very high	no interest at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...if high, very high or extremely high: What exactly motivates you? _____

... if **not very high or no interest at all** - please state your major reasons:

Multiple selection possible

- formal/administrative constraints
- financial constraints
- duration of training (too short)
- inappropriate training results
- other (please specify): _____

E Learnership outcome

Work readiness and employability: Learnerships are established to develop the competence level required in your company and ensure employability of the learners:

How do you rate the **overall competence** (work readiness) delivered by the learnerships - **Curricula content in general**:

excellent	very good	good	fair	poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to:

	excellent	very good	good	fair	poor
Technical competence <i>(Professional knowledge and expertise in the profession.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methodological competence <i>(Ability to practically apply the acquired knowledge and deal with occurring problems.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence <i>(Ability to interact socially in the work context, i.e. team work, responsible and reliable behaviour, etc.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

According to your opinion - what should be addressed more in future?

Multiple selections possible:

Technical competence

Methodological competence

Interpersonal competence

just keep it the way it is

What would you consider to be an adequate length of training for the competence level required in your industry (average amount of time needed for practical and formal training training?)

please state number of months:

NQF 2 (worker level)

NQF 3-4 (artisan level)

	Total (in months)			Total (in months)
	Practical training (in months)			Practical training (in months)
	Formal training (in months)			Formal training (in months)

F Statistical data and general comments

Do you train learners in your company YES NO ...if no continue with Statistical data – page 2

....if yes:

For how many years have you been training learners according to the new system? year(s)

How many learners do you currently train?

	Total number of learners	18.1 learners Learner employed prior to agreement	18.2 learners Learner unemployed prior to agreement
Male			
Female			
Race?	African	Coloured	Indian/Asian
			White
At what age?	Age 15-24	25-34	>= 35

Number of disabled learners

Drop-Outs per training year

How many **drop outs** do you usually have **per training year?** learners **of** learners

....**due to?** unsuitability of candidate financial reasons of the learner

financial reasons of the company

health reasons => HIV

other (please specify) _____

Employability (after completing the learnership)

After completing their learnership: How many of your learners, who have completed their learnership in the last 24 months, are now still working for your company or in the trained field (other company/being self-employed)?

learners of completed learnerships

Mentors

Do you have specially assigned mentors for learnerships in your company?

yes no I do it myself

F Statistical data – page 2

Your current position in the company: Executive/Owner HR Manager Staff member
 Learnership mentor

Business established since:

Number of formal employees (in total): 1-49 50-150 > 150

Skills/trades mainly required by your business in the next year: _____

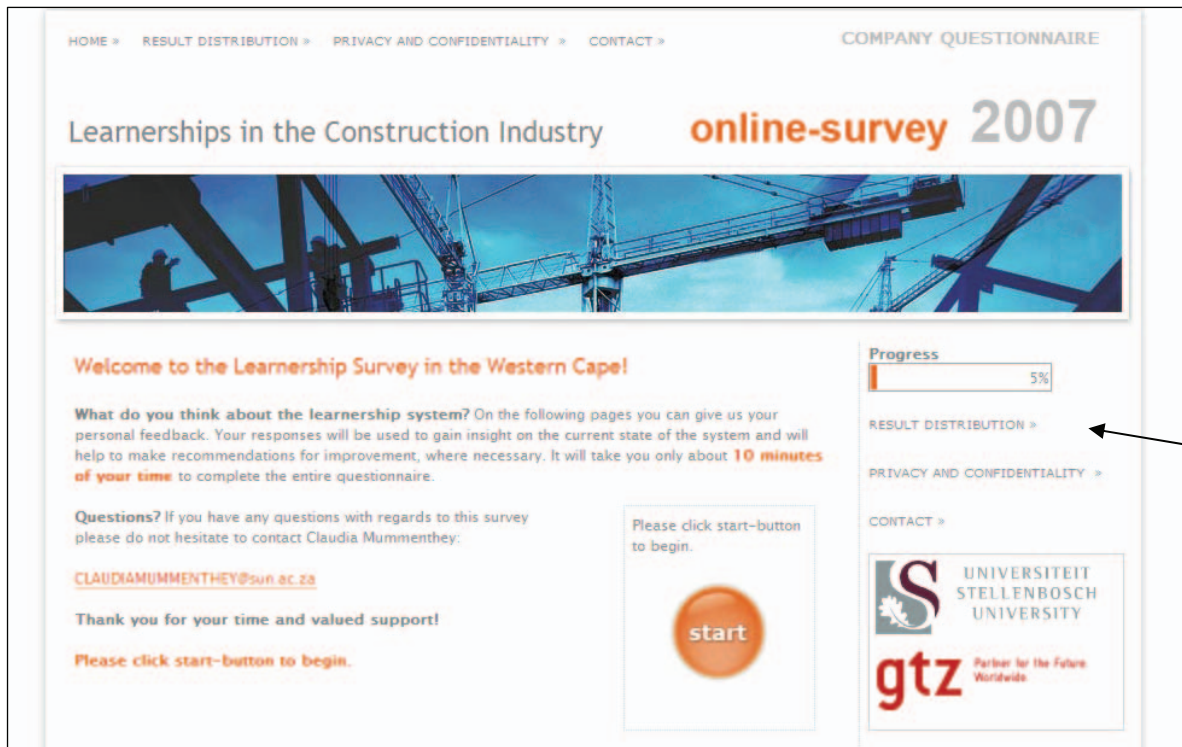
Please give a rough estimation:

NQF level 2	NQF level 3-4 (artisan)
Number of People	Number of People

CETA registered employer: yes no

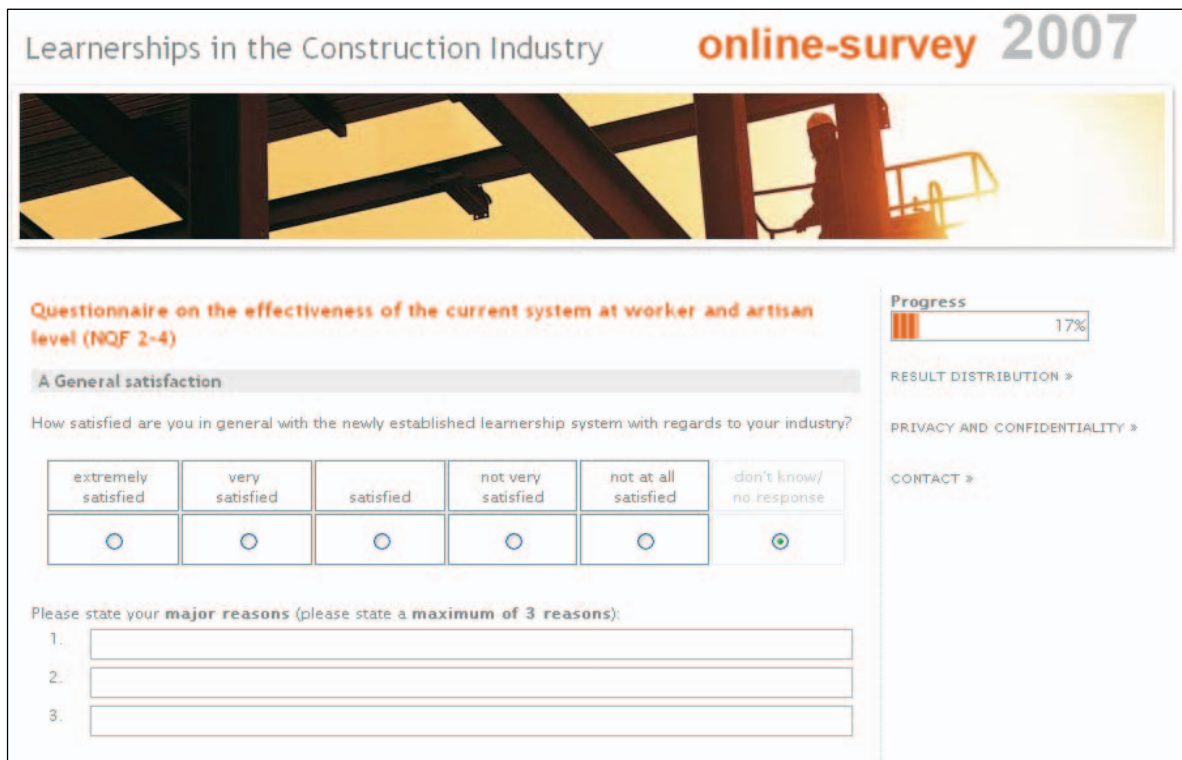
Are there any general comments, ideas, recommendations on learnerships in the construction industry you would like to add?

Web-Survey Design



Progress-Barometer

Homepage



Example: First page of the questionnaire

Learnerships in the construction industry

Questionnaire on the effectiveness of the current system at worker and artisan level
(NQF 2-4)

Vakleerlingskappe in die konstruksie-industrie

Vraelys aangaande die effektiwiteit van die huidige sisteem op ambagsvlak (NQF 2-4)
(Nasionale Kwalifikasie Raamwerk)

I am calling from the University of Stellenbosch: I am a Masters student conducting a survey for quality assurance in construction learnerships. To improve the system for others entering a learnership after you.

Ek skakel van die Universiteit van Stellenbosch: Ek n' Magister student wat is besig met 'n opname aangaande kwaliteitsversekering in konstruksie-vakleerlings-kappe. Om die sisteem te verbeter vir diegene wie 'n vakleerlingskap na u onderneem.

Interview will take 5-10 minutes. (Maximum!)

Onderhoud sal ongeveer 5-10 minute neem (Maksimum!)

Do you have time for this short interview? Yes NO
Het u tyd beskikbaar vir hierdie onderhoud? Ja Nee

At what other time will an interview suit you? _____
Watter ander tyd sal u pas vir die onderhoud?

When can I call you again? _____
Wanneer sal dit u pas om u weer te kontak?

When did you complete your learnership? _____ year
Wanneer het u die vakleerlingskap voltooi? _____ Jaar

A General satisfaction/ Algemene tevredenheid

How satisfied are you in general with your learnership?
Hoe tevrede is u met u leerlingskap oor die algemeen?

<i>extremely satisfied</i> Uiters tevrede	<i>very satisfied</i> Baie tevrede	<i>satisfied</i> tevrede	<i>not very satisfied</i> nie baie tevrede nie	<i>not at all satisfied</i> glad nie tevrede nie
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state your major reasons (please state a maximum of 3 reasons)/ Dui asseblief die 3 hoofredes vir u antwoord aan.

- 1.
- 2.
- 3.

B Learnership outcome/ Vakleerlingskap uitkoms

After completing your learnership: How well do you currently feel prepared for conducting your profession? / Na afhandeling van u vakleerlingskap: Tot watter mate voel u voorbereid om in u professie op te tree?

<i>extremely well prepared</i> Uiters goed voorbereid	<i>very well prepared</i> baie goed voorbereid	<i>prepared</i> vorbereid	<i>not very well prepared</i> Nie baie goed voorbereid nie	<i>not at all prepared</i> glad nie voorbereid nie
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to / Met betrekking tot:

	<i>extremely well prepared</i> Uiters goed voorbereid	<i>very well prepared</i> baie goed voorbereid	<i>prepared</i> vorbereid	<i>not very well prepared</i> Nie baie goed voorbereid nie	<i>not at all prepared</i> glad nie voorbereid nie
Technical competence <i>(Professional knowledge and expertise in the profession.)</i> Tegniese bevoegdheid <i>(Professionele kennis en kundigheid in die professie)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methodological competence <i>(Ability to practically apply the acquired knowledge and deal with occurring problems.)</i> Metodologiese bevoegdheid <i>(Vermoë om die verkrygte kennis prakties toe te pas en bestaande probleme te hanteer)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence <i>(Ability to interact socially in the work context, i.e. team work, responsible and reliable behaviour, etc.)</i> Interpersoonlike bevoegdheid <i>(Vermoë om sosiale interaksie te toon binne die werkskonteks, naamlik spanwerk, verantwoordelike en betroubare gedrag ens.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

According to your opinion - what should be addressed more in future? Multiple selections possible:
Volgens u eie opinie – wat hoort in die toekoms aangespreek te word? Meervoudige seleksie/keuses moontlik:

Technical competence
Tegniese bevoegdheid

Methodological competence
Metodologiese bevoegdheid

Interpersonal competence
Interpersoonlike bevoegdheid

just keep it the way it is/ hou dit net soos dit is

Thinking about the skills you need in your profession: How would you rate the duration of the learnership?
Dink aan die vaardighede wat u benodig in u profesie: Hoe sou u die tydsverloop van die vakleerlingskap beoordeel?

	<i>excellent</i> uitstekend	<i>very good</i> baie goed	<i>good</i> goed	<i>fair</i> redelik	<i>poor</i> swak
<i>Entire duration of the learnership</i> Algehele tydsverloop van die vakleerlingskap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Duration of formal training (institute)</i> Tydsverloop van formele opleiding by instituut/instelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Duration of practical training (workplace) / Tydsverloop van praktiese opleiding by werksplek</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Duration of your learnership? - Please state number of months...
Hoe lank was u vakleerlingskap? – in maande...

Length of formal training:
Tydsverloop van formele opleiding:

Length of practical training:
Tydsverloop van praktiese opleiding:

C Learnership processes/ Vakleerlingskap prosesse

Effective learnerships need an enabling environment: How would you rate the following aspects:
Effektiewe vakleerlingskappe benodig 'n toepaslike omgewing: Hoe sou u die volgende aspekte beoordeel:

	<i>excellent</i> uitstekend	<i>very good</i> baie goed	<i>good</i> goed	<i>fair</i> redelik	<i>poor</i> swak
<i>Quality of support and guidance delivered by employer</i> Kwaliteit van ondersteuning en leiding aangebied deur werkgewer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Quality of support and guidance delivered by training institute</i> Kwaliteit van ondersteuning en leiding aangebied deur opleidingsinstelling/instituut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Workplace conditions with regards to Health and safety</i> Werkplek omstandig-hede met betrekking tot gesondheid en veiligheid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>General conditions with regards to reliable payment</i> Algemene omstandig-hede met betrekking tot betroubare betaling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Availability of suitable learning and teaching material (machinery, books in the correct language?)</i> Besikbaarheid van geskikte/toepaslike leer- en onderrigmateriaal (masjinerie, boeke in korrekte taal?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Formal training infrastructure and resources incl. sites, classrooms, teachers</i> Formele opleiding-infrastruktuur insluitend perseel, klaskamer, onderwysers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Process of assessment and certification (through accredited assessors)</i> Prosesse van assessering en sertifisering (deur geakkrediteerde assessors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Did the company have an especially assigned mentor for learners? Yes No
 Het die maatskappy 'n spesiale toegekende mentor vir leerders? Ja Nee

Was HIV/Aids prevention trained in your learnership? Yes No
 Was u blootgestel aan HIV/Aids opleiding tydens u varkleerlingskap? Ja Nee

D Learnership outcome/Vakleerlingskap uitkoms

Have you been employed after completing your learnership in the profession you have been trained for?
 Was u indiens geneem na afhandeling van u vakleerlingskap in die profesie waarvoor u opgelei is?

- YES/JA
- employed with former employer* *higher* *lower* *same* *wage*
 Indiens/werk by voormalige werkgewer hoër laer dieselfde loon
- employed with new employer* *higher* *lower* *same* *wage*
 Indiens/werk by nuwe werkgewer hoër laer dieselfde loon
- self-employed* self-indiensname/ werk vir self
- other: _____ please specify*
 Ander asseblief spesifiseer

Are you employed in the profession you were trained for? yes no - employed in other profession
 Is u indiensgeneem in die profesie waarin u opgelei is? ja nee – indiens/werk in ander profesie

- NO/NEE**
- unemployed, seeking for work in the same profession*
Werkloos, opsoek na werk in dieselfde profesie
- unemployed, seeking for work in different profession*
Werkloos, opsoek na werk in 'n ander profesie
- pursuing further education in the same profession*
Navolging van verdere onderrig in dieselfde profesie
- pursuing further education in different profession*
Navolging van verdere onderrig in 'n ander profesie

Open comments: _____
Kommentaar:

After the completion of your learnership: Would you now generally rate your **chances for employment higher than before?** Na afhandeling van u vakleerlingskap: Sou u nou u **kanse vir indiensname hoër ag as tevore?**

<i>definitely/</i> definitief	<i>probably</i> Heel moontlik	<i>fairly likely</i> miskien	<i>probably not/</i> moontlik nie	<i>definitely not/</i> beslis nie
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Has the learnership **improved your chances for a higher income and promotion?**
Het die vakleerlingskap u **kanse op hoër inkomste en bevordering verbeter?**

<i>definitely/</i> definitief	<i>probably</i> Heel moontlik	<i>fairly likely</i> miskien	<i>probably not/</i> moontlik nie	<i>definitely not/</i> beslis nie
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E Statistical data and general comments/ Statistiese data en algemene opmerkings

What kind of learnership have you completed? **NQF level** 2 3 4
Watter tipe vakleerlingskap het u voltooi? NQF/NKR vlak

18.1 18.2

In which kind of company? _____ otherwise:
In watter tipe maatskappy? Andersins:

Size of the company 1-49 50-150 > 150
Grootte van die maatskappy

What is your age?/ Wat is u ouderdom?	Age 15-24	25-34	>= 35

Group/race? Bevolkingsgroep	African	Coloured	Indian/Asian	White

Male/manlik female/vroulik

Highest educational level: *Primary school* *Secondary school* *Grade 12 (Matric)*
Hoogste opvoedkundige vlak *Diploma*

Are there any general comments, ideas, recommendations on learnerships in the construction industry you would like to add?

Is daar enige algemene kommentaar, idees, voorstelle in verband met die vakleerlingskappe in die konstruksie-industrie wat u sou wil byvoeg?

Learnerships in the construction industry

Questionnaire on the efficiency and effectiveness of the current system at worker and artisan level
(NQF 2-4)

A General satisfaction

How satisfied are you with the newly established learnership system with regards to the construction industry?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state your **major reasons** (please state a **maximum of 3 reasons**):

- 1.
- 2.
- 3.

Do you regard **learnerships** as an **appropriate means to develop artisans** for the construction industry?

definitely	probably	fairly likely	probably not	definitely not
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Why? _____

B Provider learnership competence

How well do you currently **feel prepared for conducting effective learnerships for the construction industry** in your training institute?

extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to:

Technical competence	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Professional knowledge/expertise to train the professions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Methodological competence	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Innovative (action-oriented and outcome-based) training methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate evaluation (OBE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence					
Guiding and mentoring the learners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dealing with occurring problems during the learnership such as (discipline/motivation, drugs, HIV, learning problems)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Support required?

I would appreciate/be open for support in these matters: yes no

By whom would you appreciate support?

CETA CIDB other?: _____ (please specify)

In which specific matter? _____

C Learnership processes

Effective learnerships need efficient processes: How would you rate the following aspects:

	excellent	very good	good	fair	poor
State of knowledge in the industry on the learnership system and its benefits (Availability of information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal procedures in setting up, dealing with the learnership (WSP, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of learners (concerning basic skills required in the industry and the necessary motivation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financing scheme of the system (levy-claiming system)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support given by the CETA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of suitable learning and teaching material (machinery, books, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	excellent	very good	good	fair	poor
Given training infrastructure and resources incl. sites, classrooms, teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of practical training delivered by employers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entire duration of the learnership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of practical training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employer-customised time-schedule for formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Process of assessment and certification (through accredited assessors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HIV/Aids

Is HIV/Aids prevention trained in the learnership yes no

Comments: _____

D Provider learnership motivation

How high would you rate your current interest in getting/staying involved in the system?

extremely high	very high	high	not very high	no interest at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

....if high, very high or extremely high: What exactly motivates you? _____

... if **not very high or no interest at all** - please state your major reasons:

Multiple selection possible:

- formal/administrative constraints
- financial constraints
- duration of training (too short)
- inappropriate training results
- other (please specify): _____

E Learnership outcome

Work readiness and employability: Learnerships are established to develop the competence level required in the industry and ensure employability of the learners:

How do you rate the **overall competence** (work readiness) delivered by the learnerships - **Curricula content in general:**

excellent	very good	good	fair	poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to:

	excellent	very good	good	fair	poor
Technical competence <i>(Professional knowledge and expertise in the profession.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methodological competence <i>(Ability to practically apply the acquired knowledge and deal with occurring problems.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence <i>(Ability to interact socially in the work context, i.e. team work, responsible and reliable behaviour, etc.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

According to your opinion - what should be addressed more in future?

Multiple selections possible:

Technical competence Methodological competence Interpersonal competence

just keep it the way it is

What would you consider to be an adequate length of training for the competence level required in the industry (average amount of time needed for practical and formal training?)

please state number of months :

	NQF 2 (worker level)			NQF 3-4 (artisan level)
	Total (in months)			Total (in months)
	Practical raining (in months)			Practical training (in months)
	Formal training (in months)			Formal training (in months)

F Statistical data and general comments

For how many years have you been training construction learners according to the new system?
year(s)

How many construction learners (NQF-Level 2-4) do you currently train?

	Total number of learners	18.1 learners Learner employed prior to agreement	18.2 learners Learner unemployed prior to agreement
Male			
Female			

Race?	African	Coloured	Indian/Asian	White

At what age?	Age 15-24	25-34	>= 35

Business size?	Small/Micro (1-49 employees)	Medium (50-150)	Large (> 150)

Number of disabled learners**Drop outs per training year:**

How many **drop outs** do you usually have **per training year**?

learners of learners

....due to? unsuitability of candidate financial reasons of the learner

financial reasons of the employer health reasons => HIV

other (please specify) _____

Employability (after completing the learnership)

After completing their learnership: How many percent of the learners - who wish to - continue working for their employers?

percent of learners (please give a rough estimate, if no data available)

estimate data

Your current position in the TRAINING INSTITUTE: _____

Are there any general comments, ideas, and recommendations on learnerships in the construction industry you would like to add?

Learnerships in the construction industry

Questionnaire on the efficiency and effectiveness of the current system at worker and artisan level
(NQF 2-4)

A General satisfaction

How satisfied are you with the newly established learnership system with regards to the construction industry?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state your **major reasons** (please state a **maximum of 3 reasons**):

- 1.
- 2.
- 3.

Do you regard **learnerships** as an **appropriate means to develop artisans** for the construction industry?

definitely	probably	fairly likely	probably not	definitely not
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Why? _____

B Provider learnership competence

How well do you currently consider the employers in the construction industry to be **prepared for conducting effective learnerships**?

extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to competence and size of the enterprise:

	Enterprise size	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Technical competence Professional knowledge/expertise to train the profession	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Methodological competence	Enterprise size	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Recruitment methods for attaining and finding candidates	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper assessment of candidates	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducting the training (i.e. effective methodology, training methods and materials for training the intended curricula)	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence	Enterprise size					
Guiding and mentoring the learner	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dealing with occurring problems during the learnership such as (discipline/motivation, drugs, HIV, learning problems)	Small/Micro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Medium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C Learnership processes

Effective learnerships need efficient processes: How would you rate the following aspects:

	excellent	very good	good	fair	poor
State of knowledge in the industry on the learnership system and its benefits (Availability of information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal procedures in setting up, dealing with the learnership (WSP, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of suitable learners (concerning Basic skills required and the necessary motivation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financing scheme of the system (levy-claiming-system)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cooperation with the employers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cooperation with the accredited providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Support by the CETA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of suitable learning/teaching material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional availability of formal training by accredited providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of formal training by training providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of practical training delivered by employers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entire duration of the learnership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of practical training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customised time-schedule for the formal training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Process of assessment and certification (through accredited assessors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to the enabling processes:

Where do you see the major problems in the Western Cape?

Please state your three priorities to be addressed:

- 1.
- 2.
- 3.

D Learnership outcome

Work readiness and employability: Learnerships are established to develop the competence level required in the industry and ensure employability of the learners:

How do you rate the **overall competence** (work readiness) delivered by the learnerships - **Curricula content in general:**

excellent	very good	good	fair	poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With regards to:

	excellent	very good	good	fair	poor
Technical competence <i>(Professional knowledge and expertise in the profession.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methodological competence <i>(Ability to practically apply the acquired knowledge and deal with occurring problems.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpersonal competence <i>(Ability to interact socially in the work context, i.e. team work, responsible and reliable behaviour, etc.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

According to your opinion - what should be addressed more in future?

Multiple selections possible:

Technical competence
 Methodological competence
 Interpersonal competence

just keep it the way it is

What would you consider to be an adequate length of training for the skills of an artisan required in the industry (average amount of time needed for practical and formal training?)

please state number of months :

NQF 2 (worker level)		NQF 3-4 (artisan level)	
Total (in months)		Total (in months)	
Practical training (in months)		Practical training (in months)	
Formal Training (in months)		Formal Training (in months)	

Skills mainly required by the industry in the next year: _____

Please give a rough estimation

NQF level 2	NQF level 3-4 (artisan)
Number of People	Number of People

Employability (after completing the learnership)

After completing their learnership: How many percent of the learners usually still work for their employers or in the trade? Please give a rough estimate.

percent of learners

E Provider learnership motivation

How high would you rate the current interest of the industry in getting/staying involved in the system?

extremely high	very high	high	not very high	no interest at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...if high, very high or extremely high: What exactly motivates them? _____

... if **not very high or no interest at all** - please state the major reasons:

Multiple selection possible:

- formal/administrative constraints
- financial constraints
- duration of training (too short)
- inappropriate training results
- other (please specify): _____

F Statistical data and general comments

Your current position within the organisation: _____

Are there any general comments, ideas, recommendations on learnerships in the construction industry you would like to add?