

**INSTITUTIONAL ARRANGEMENTS FOR ARTISAN DEVELOPMENT IN
THE MANUFACTURING SECTOR**

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ABSTRACT

Since the dawn of democracy in South Africa the government has had huge initiatives to address the imbalance of the past. One of the key initiatives undertaken by the government was to address the shortage of artisans in the country. Artisan development was driven by the Department of Labour and the Department of Education. The focus of the Department of Labour was on the practical skills of artisan development and the Department of Education focused on the theory component offered through the National Technical Education (NATED) programmes. The legislation governing the two components of the curriculum was also different.

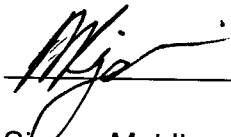
The purpose of this research study was to explore the range of institutional arrangements for artisan development in the manufacturing sector. Furthermore, in exploring the literature and data collected, the study used Osborne and Gallacher (2004) cited in Mathekga's (2012) conceptual framework of 'getting in', 'getting through' and 'getting on' to distinguish between artisan development activities taking place through different institutional arrangements.

The findings in the study have shown that the high level governance and collaboration arrangements by institutions did not translate to the lower levels of implementation. It is against this background that the study recommended further research on some areas of collaboration and governance of institutions in the development of artisans.

Key words: Artisan development, getting in, getting through, collaboration, governance and institutions.

DECLARATION

I declare that this dissertation is my own, unaided work. It is submitted in partial fulfilment of the requirement of the degree of Masters of Management (in the field of Public Policy) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.



Sinaye Mgidi

21 February 2014

DEDICATION

This work is dedicated to my late parents, Bang'swani and Ngada Mgidi, whom I can still recall giving me words of wisdom, which taught me to be the hard worker I have become in order to survive in life. Their motivation in my earlier life taught me to persevere under difficult circumstances. I have no doubt that they would have been proud of me

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All praises are due to Almighty God for providing me with the strength to finish this project amidst challenging circumstances. The will of the Lord has inspired me to take stock of my life and motivate myself to follow through with my academic pursuit, even though at times I lacked the energy to stay on course. Thanks to God that I was able to attack the negative inclinations within me during difficult times.

My utmost gratitude goes to my supervisor Professor Peliwe Lolwana for her hands-on guidance, dedication, patience and meticulous evaluation, without which I would have not been able to complete this study. I am extremely grateful for the encouragement and motivation I received from her, especially during times when I felt that I may not be able to complete this study.

A special word of thanks to my family, friends and colleagues for their support and encouragement, especially to my manager Derrick Peo who inspired me through his leadership. I would also like to thank Ahmed Vawda for offering to edit my work. Lastly, I would like to thank my interview respondents without whom this study would not have been a success.

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LIST OF ABBREVIATIONS

AATP	-	Accelerated Artisan Training Project
ADCC	-	Artisan Development Coordinating Committee
AMA	-	Advance Modern Apprenticeships
AMAAC	-	The Advanced Modern Apprenticeship Advisory Committee
AQF	-	Australian Qualifications Framework
ATDTTT	-	Artisan and Technology Development Technical Task Team
COTT	-	Central Organisation for Trade Testing
DHET	-	Department of Higher Education and Training
DOE	-	Department of Education
DoL	-	Department Of Labour
DTTC	-	Decentralized Trade Testing Centre
EDD	-	Economic Development Department
ETQA	-	Education and Training Quality Assurance
FET	-	Further Education and Training
GIZ	-	Gesellschaft für Internationale Zusammenarbeit
IT	-	Information Technology
JET	-	Joint Education Trust
MA	-	Modern Apprenticeships
merSETA		Manufacturing Engineering and Related Services Sector Education and Training Authority
MTA	-	Manpower Training Act
NAD	-	National Artisan Development
NAMB	-	National Artisan Moderation Body
NBI	-	National Business Initiative
NCV	-	National Certificate (Vocational)

NEET	-	Neither in Employment nor in Education or Training
NQF	-	National Qualifications Framework
NSDS	-	National Skills Development Strategy
NSFAS	-	National Student Financial Aid Scheme
NTA	-	National Training Authority
NTO	-	National Training Organisation
NVQ	-	National Vocational Qualification
OECD	-	Organisation for Economic Co-operation and Development
OFO	-	Organizing Framework for Occupations
QCTO-		Quality Council for Trades and Occupations
RPL	-	Recognition of Prior Learning
SAQA	-	South African Qualifications Authority
SIC	-	Standard International Classification
SDA	-	Skills Development Act
SEIFSA	-	Steel and Engineering Industry Federation of South Africa
SETA	-	Sector Education and Training Authority
SIPs	-	State Infrastructure Projects
SOE	-	State Owned Enterprises
SSACI	-	Swiss-South African Cooperation Initiative
VET	-	Vocational Education and Training

CHAPTER 1

RESEARCH PARAMETERS

1.1. Introduction

The need to curb the shortage of artisans has been high on the government priorities. It is widely accepted that artisan development is a contentious issue in South Africa in that the shortage of artisans increases unemployment and a subsequent increase in poverty. In the metals industries, for every artisan employed in large firms, there are at least ten operators employed.

Since the inauguration of the democratic government in 1994 there have been numerous interventions put in place to increase the number of artisans qualifying through the different applicable routes. Nineteen years into the democratic government, the shortage of artisans still persists. From 1994 to 2008 the Department of Labour (DoL) has had interventions to increase the required number of artisans. Some of the interventions for skills development included the establishment of the sector education and training authorities (SETAs) and regulation of the skills levy to support skills development through discretionary and mandatory grants, which included the training of artisans. In the same period the South African Qualifications Authority (SAQA) was established to coordinate and manage the functions of the education and training quality assurance (ETQA) bodies.

The Department of Education (DoE) introduced the National Certificate Vocational (NCV) programmes through the policy related to the Levels 2-4 National Certificate Vocational (NCV) programmes. The introduction of the NCV programmes aimed at increasing the number of artisans. The NCV programmes were different from the National Technical Education (NATED) programmes in that the curriculum of the NCV programmes had a sixty percent component of practical training. This was seen as a huge advantage to produce artisans. Later on it was discovered that the completion of Levels 2-4 of the NCV programmes did not equate to an artisan. Subsequent to that, the NATED programmes were reintroduced in 2011 by the Minister in the Department of Higher Education and Training (DHET), as an alternative to support artisan development.

The Economic Development Department (EDD) introduced the New Growth Path Accord 1 National Skills Accord document in 2011, which has a strong emphasis on artisan development and the measures to

be put in place in that regard. The Skills Accord document had very high level commitments.

The commitments defined the roles of different institutions and included commitments that will contribute to the development of artisans. Three years after the signing of the Skills Accord document very little results have been achieved.

Interesting to note is the fact that none of the institutions involved in artisan development can produce a qualified artisan without the involvement of at least two other institutions. The artisan development curriculum requires at least three components to be covered; the knowledge, practical skills and some work experience components. These components are unlikely to be offered by one institution. Over and above the curriculum components are the aspects of funding, administration (including governance), quality assurance and certification, which are the responsibility of different institutions. These artisan development aspects require that institutions should develop partnerships if they are to succeed in the development of artisans. The researcher argues that artisan development is like a relay in athletics wherein the success of a team depends on the performance of the individual athletes and their efficiency in baton exchange. One athlete in a team can easily fail the rest of the team. In the case of artisan training, an institution not doing well can affect the efficiency of artisan development.

The interventions made by different institutions and some processes involved in the development of an artisan have been presented in the paragraphs above. The researcher had a problem in identifying the institutional arrangements linking different institutions to ensure that there is a smooth flow and synergy to produce an artisan. It is against this background that the researcher undertook to investigate the nature of institutional arrangements for the development of artisans in the manufacturing sector. The manufacturing sectors in South Africa are extensive. The scope of this research study is limited to institutional arrangements for artisan development within the scope of the Manufacturing, Engineering and Related Sector Education and Training Authority (merSETA).

This study was based on descriptive qualitative research; the focus was on the context within which institutions 'get in' 'get through' and 'get on' artisan candidates through different forms of arrangements.

The researcher's focus was on the institutions in the manufacturing sector and less on individuals in those institutions. The researcher has provided an explanation of some concepts which have applicability to

different institutions in the development of an artisan. The key concepts used in this study are explained in the paragraphs below. The explanation of these concepts is necessary because they could have different meanings for different readers. The concepts explained below were central to this study.

The concepts of 'getting in', 'getting through' and 'getting on' as espoused by Osborne and Gallacher (2004) cited in Mathekga (2012) are further used as the conceptual framework supporting the theoretical framework in this study. 'Getting in' focuses on how the artisan candidates get access from the feeder academic or occupational stream to the specific methodology of the artisan development route.

'Getting in' will include the artisan candidate's recruitment and selection process, minimum entry requirements such as the NATED or ('N') N1 to N3, National Certificate Vocational (NCV) Level 2 to 4 programmes and any other academic and occupational learning programme that may allow the artisan candidate entry into a specific artisan development route. 'Getting in' requirements are prescribed in the specific artisan development route.

'Getting through' focuses on institutional support to learner artisans and it involves institutional arrangements to ensure that learner artisans become competent in their trades. Elements of 'getting through' will include artisan candidate registration and induction processes, workplace approval, accreditation of training providers, monitoring and support of artisan candidate training, trade test preparation, accreditation of Decentralized Trade Test Centres (DTTC), funding arrangements and certification of competent artisans.

'Getting on' focuses on artisans who have just completed and passed their trade test and who need to keep their skills and competencies current to ensure relevance in line with technology. This study investigates artisan development arrangements up to the point when the artisan candidate attempts the trade test and is deemed competent. The concept of 'getting on' primarily takes place in the world of work where the artisan practises his trade, and will not be explored in this research study.

The Artisan Development Coordinating Committee (ADCC) currently called Artisan and Technology Development Technical Task Team (ATDTTT), defines an artisan as a person that has been certified as competent by the relevant Education and Training Quality Assurance (ETQA) body for a qualification registered on the South African National Qualifications Framework (NQF) for a trade listed by the

Minister of Labour in the Skills Development Act of 2008 (as amended). 'The trade has a designation at the occupational level of the Organising Framework for Occupations (OFO) and the person is registered with the registrar for artisans as an artisan for such trade' (as endorsed by the Artisan Development Coordinating Committee on 29th June 2007).

The implementing arm of the National Skills Development Strategy (NSDS) was transferred from the Department of Labour (DoL) to the Department of Higher Education and Training (DHET) in 2009 and hence the Minister of Labour in this explanation refers to the Minister in the Department of Higher Education and Training. The artisan is defined in the Skills Development Act (SDA) No 37, 2008 as a person that has been certified as competent to perform a listed trade in accordance with the Act. For the purpose of this study, the latter definition will be used.

Hirschowitz (1993) explains training as any learning intervention technique such as counselling, consulting, mentoring or focused discussion in which one person, the trainer, imparts knowledge and or a skills base to an individual so that he or she can use what they have learnt.

The next section on the background to the study, supplements the interventions by institutions as outlined in the introduction. The background to the study provides a historical overview of artisan development and further outlines some of the current challenges through the merSETA's perspective and the DHET Minister's perspective. These perspectives and the representation of artisan development statistics are important in determining whether the current institutional arrangements are producing the targeted number of trained artisans.

The rationale for the study in Section 1.3 of this chapter provides a further link to the background of the study and the introduction in that it reflects on the consequences when artisan development is not coordinated to the next level in terms of employment. The section on the rationale for the study sharpens the need to conduct this study on institutional arrangements for artisan development in the manufacturing sector.

1.2. Background to the study

The history of the artisan development system in South Africa was based on a segregated system in which blacks were excluded from participating in the development processes. The traditional

apprenticeship system, based on the structured mastered apprenticeship, has been the main route in the development of artisans in South Africa. The structure of artisan development has evolved over time as a result of it becoming inclusive of other races through the new policies developed by the democratic government (Gamble, 2004). The legal framework regulating the development of artisans has been the Manpower Training Act, (MTA) 1981 (Act 56 of 1981). This act replaced the other acts such as the Training of Artisans Act, 1951 (Act 38 of 1951) and the Apprenticeship Act, 1944 (Act 37 of 1944). The MTA defines an apprentice as ‘...any person employed in terms of the contract of apprenticeship registered or deemed to be registered in terms of the provisions of section 16(3) (d) or section 18 (1) (c3) and for the purpose of sections 42, 50, 51, 54 and 56, and includes any minor employed in terms of the provisions of section 15 (xxxiv)’.

Artisan development has declined over the years and the reasons for the decline are discussed in chapter 2. The continuous decline in the development of artisans has led to different government interventions through its parastatals and state entities such as the SETAs as identified in the introduction above. The background to the study is informed by the stated aim of DHET Minister, Dr. Blade Nzimande, of driving the development of artisans in South Africa, and the merSETA’s Strategic Plan to respond to the promotion of access to skills development by ensuring that 20 000 artisans are qualified in its licensed period from 2011/12 to 2015/16. This background is discussed in detail in relation to the merSETA’s perspective as described in the merSETA (2013) Strategic Plan and the Minister’s perspective as contained in the DHET (2012) National Artisan Development (NAD) conference document. The details of the documents are outline below.

1.2.1. merSETA’s perspective

The merSETA is one of the 21 Sector Education and Training Authorities (SETAs) established in terms of Section 9 of the SDA. The objective of its establishment is to contribute to the social and economic development and growth of the country by enabling education and training of the highest quality in the manufacturing, engineering and related services sectors of the economy, to the benefit of employers, employees and learners. The merSETA has five chambers, namely, the new tyre chamber, motor chamber, plastics chamber, auto chamber and the metal chamber. More than 80 percent of the trades designated under the other chambers, are also

listed under the metal chamber. This study focused on the metal chamber in that trades listed under this chamber are applicable to the other chambers as well.

The merSETA conducted research within its sector to determine the training needs based on a situational analysis of the sector. This situational analysis resulted in the merSETA Strategic Plan for the period 2013/14 – 2017/18. The research took into account the skills demand and supply within the merSETA from the previous years (merSETA, 2013).

In this research study it was found that the average age of artisans is high and that many are due to retire within the next few years. The age distribution of artisans thus required the merSETA to focus its resources on the development of artisans and promote skills transfer from the current high - quality artisans to the new artisan learners. The baseline scenario revealed that a total of 200 820 skilled people will be required to fill new positions and positions that become vacant between the periods 2012 to 2018 and that 29 120 of those positions will be absorbed through technicians and artisans (merSETA, 2013).

There is a need for the merSETA sector to be more active in supporting the FET College sector which has traditionally made a very limited contribution to the development of artisans. The government is fully supporting the FET College sector and resources are geared towards building capacity in this sector. The merSETA has in its 2013/14 – 2017/18 strategy, put a major focus on the alleviation of skills shortages to promote artisan skills (merSETA, 2013).

Obviously this figure can only be achieved subject to funding resources, systems being in place and well-coordinated institutional arrangements within the sector. The other key factor for consideration in achieving this figure, is consideration of the quality of artisans that will be produced by the four routes that lead to qualified artisan status, (namely apprenticeship, learnership, recognition of prior learning and internship). In this regard, attention is being given to the implications of the scrapping and subsequent reintroduction of the NATED or 'N' N1 to N3 theory component of apprenticeships.

1.2.2. Minister's perspective

Addressing the National Artisan Development Conference, held in Midrand on the 30 June 2012, the Minister of Higher Education and Training, Dr. Blade Nzimande, alluded to the fact that South Africa will have to set-up and structure artisan training to meet the demand of the government's big Strategic Infrastructure Projects (SIPs) that are underway. The minister highlighted the importance of artisans in implementing and running the SIPs.

According to the New Growth Path, 50 000 new artisans will have to be trained by 2015 in South Africa (EDD, 2009). Artisan development is a high priority within the DHET because government's intention is to strengthen the manufacturing sector in line with the New Growth Path and the Industrial Policy Action Plan II (DTI, 2009). This target will require well-coordinated institutional arrangements.

1.2.3. Government Skills development priorities

The importance of this study is necessitated by Outcome 5 of the government's 12 strategic outcomes. Outcome 5 focuses on the development of skills by ensuring that there is 'a skilled and capable workforce to support an inclusive growth path' (Presidency, 2010: 2).

Output 1 of Outcome 5 requires the establishment of a credible institutional mechanism for skills planning. It is within this framework (or mechanism) that, as part of skills planning, research is required to implement the planned skills for the sector. Output 2 is about increasing access to programmes that lead to intermediate and high - level learning and through the national artisan development project this output is linked to the current FET College sector programmes where NATED and NCV programmes are offered. Output 3 focuses on access to occupationally-directed programmes in priority areas and thereby expands the availability of intermediate skills levels. The trade related programmes covered by this study have a bearing on this output. Output 5 focuses on the importance of enhancing research, development and innovation in human capital and expertise for a growing knowledge economy and in the development of artisans.

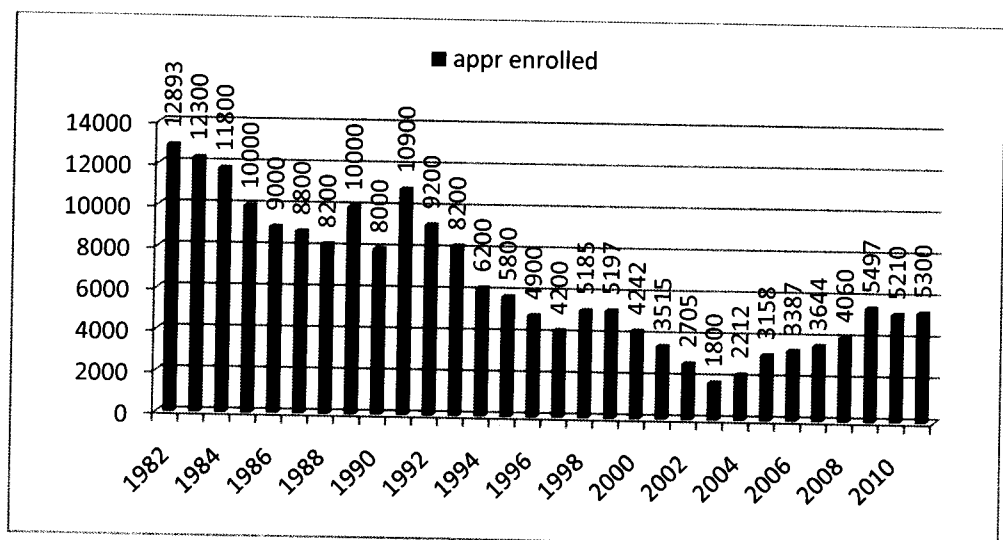
1.2.4. Problem statement

Although artisan development has shown some steady increases over the past few years as shown in the metal chamber apprenticeship training report in Figure 1 below, meeting the targets as set out in the merSETA strategy and the new growth path still remains a challenge. The challenges are more significant in that institutions involved in both the demand and supply chain of artisan development seem not to understand the expectations from their partners.

Secondly, there is a key problem with the national artisan project in that there is no institutional alignment between theory and practice. Theory in this case refers to what is learnt at the college and practice refers to what is learnt at the workplace. The two worlds of theory and training are seen as separate domains and are not interlinked. This approach separates thinking from action and the notion of complementarity is not promoted by our current artisan development processes (Fuller & Unwin, 1998).

Thirdly the institutional arrangements to implement the high level strategies such as the new growth path accord on skills development are not clear. Institutional arrangements that are not well-facilitated contribute to the withdrawal of artisan candidates, which in turn increases the unemployment rate as reflected in the rationale and motivation for the study.

Figure 1: merSETA METAL CHAMBER APPRENTICE INTAKE 1982 TO 2011



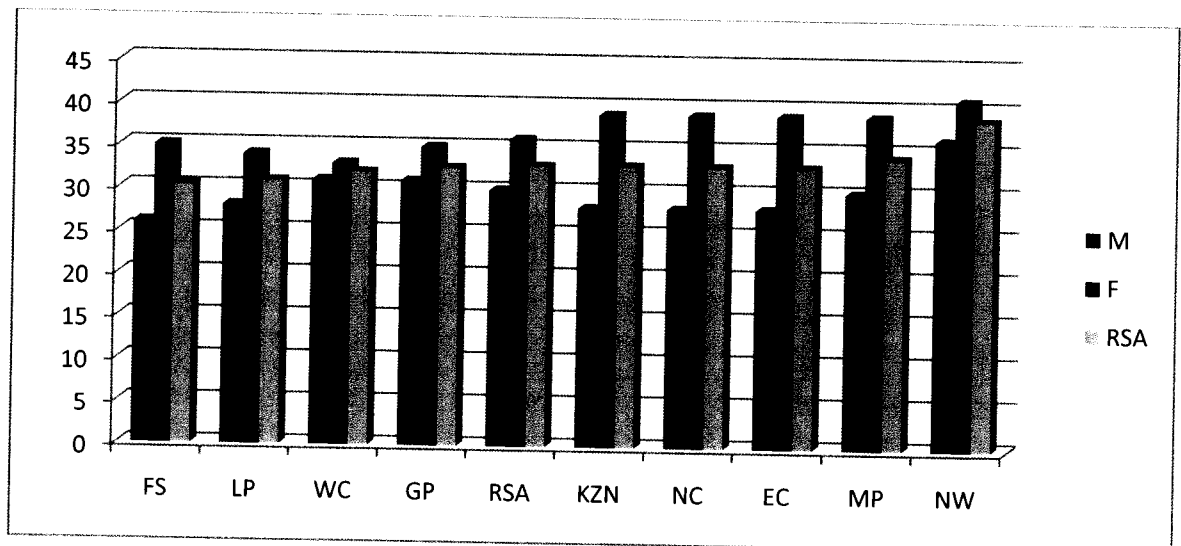
Source: SEIFSA, (2013)

1.3. Rationale and motivation for this study

According to Statistics South Africa (2013) there are approximately 3,4 million (32,9%) of the youth aged between 15-24 years who are neither in employment nor in education or training (NEET). This simply shows that there is vulnerability in this age group. The NEET group are disengaged from both work and training. Figure 2 below shows that the highest NEET rate for the youth is the female youth who are at 36.1%, while the male youth are at 29,7% of the total population group of the NEET. Statistics SA further revealed that the NEET rate differs from one province to another. The NEET rate is the highest in North West (NW) where it stands at 38.7 %. The total unemployment rate of the youth between 15 and 24 years is higher than the average unemployment rate in South Africa, which is standing at 26 %.

That the NEET rate is higher than the average unemployment rate in the country shows the importance of this study in that artisan development intake should be higher among the school leaving youth from the age of 15 years. The research findings of the merSETA (2013) revealed that a total of 200 820 skilled people will be required to fill new positions between 2012 and 2018 with 29 120 being the artisans and technicians. The merSETA research points to the importance of undertaking a study that will assist in accelerating the development of artisans.

Figure 2: NEET rate youth aged 15 – 24 years by sex, province and RSA average



	<u>FS</u>	<u>LP</u>	<u>WC</u>	<u>GP</u>	<u>RSA</u>	<u>KZN</u>	<u>NC</u>	<u>EC</u>	<u>MP</u>	<u>NW</u>
M	26	28	31	31	30	28	28	28	30	36.3
F	35	34	33	35	36	39	39	39	39	41

Source: Statistics SA, (2013)

The number of youth neither contributing to nor in the process of being prepared to participate in the economy of South Africa is just too high and cannot be left unaddressed. This study regarding institutional arrangements in artisan development is further necessitated by consideration of the resources that are committed through different structures to support training by different institutions. The merSETA member companies have made a training levy contribution of over R1billion towards training in the sector during the 2012 to 2013 financial year. The DHET has ordered the SETAs to contribute to the infrastructural development of the FET Colleges to support training and development, which includes artisan development, as well as make a mandatory contribution to the National Student Financial Aid Scheme (NSFAS).

Figure 3 shows that the employment trends from 2006 to 2011 have been negative in other sectors as opposed to the merSETA sector where they have virtually been static. The slight positive trends after the recession in 2008, confirms that there is a potential for the employment of artisans in the manufacturing sector (merSETA, 2013).

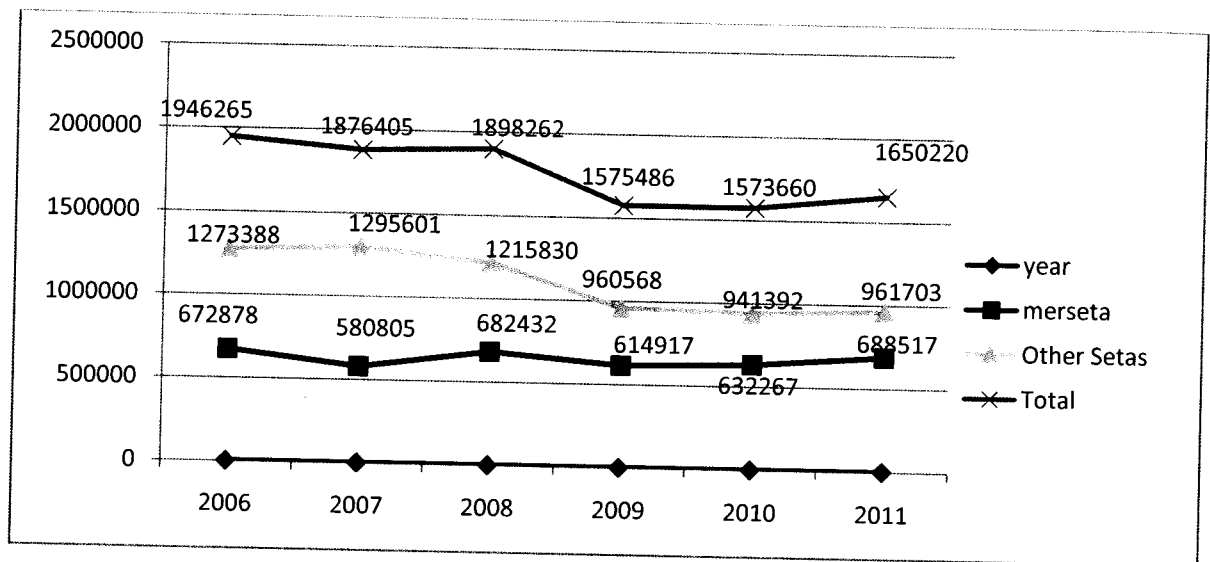
Considering the NEET rate in the sector as shown in figure 2 and the employment trends as shown in figure 3, it becomes critical to investigate the impact of institutional arrangements for artisan development in the manufacturing sector.

According to DHET (2013) fact sheet on NEET's report, youth unemployment is the major national challenge requiring urgent attention. Interventions are required with regard to the improvement of education and training and the provision of work opportunities (DHET, 2013). Without proper skills such as artisan skills this envisaged improvement will not materialise. In the DHET analysis it is also noted that NEET can be a threat to social stability and called on SETAs and other institutions to play a role in addressing the challenges faced by the youth with regard to workplace training. This challenge also points to the need for an investigation of institutional arrangements in the development of artisans in the manufacturing sector.

In his State of the Nation Address on the 09th February 2012, President Jacob Zuma emphasised the importance of reducing unemployment levels and the support for longer term economic levels. He revealed that budget will be made available for the massive State Infrastructure Projects (SIPs). SIPs require skilled personnel to roll out

successfully and this study will further assist in the development of artisans and fulfil the objectives of the Presidency.

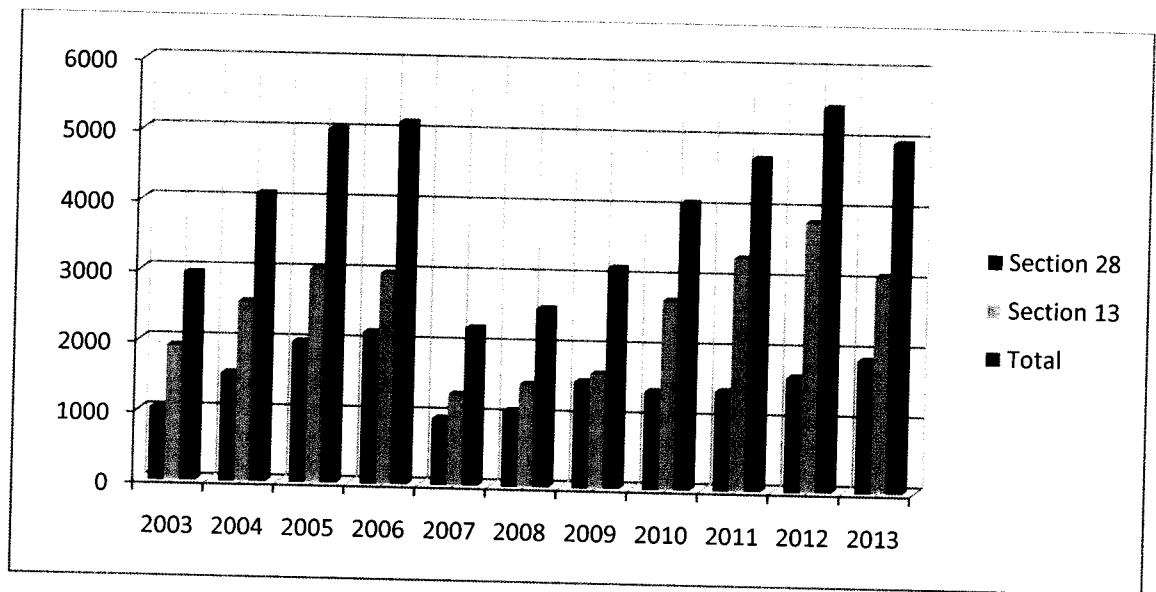
Figure 3: Employment trends in merSETA and other SETA's



Source: merSETA, (2013)

The performance agreement between the DHET and the merSETA requires that the merSETA should produce at least 20 000 artisans over the period of five years starting from 2012 to 2016. From the current trends in artisan development, it is not clear that this target will be reached. Figure 4 below, shows the artisan development trends within the merSETA from the 31st March 2003 to March 2013. This figure shows the total number of artisans produced through section 13 and section 28 of the MTA. The artisans produced through the learnership route are recorded under section 28 of the MTA. Section 28 of the MTA has been repealed from 1st October 2013 and this leaves the apprenticeship route as the main route for artisans. The apprenticeship route produces just above 3 000 artisans annually. The NEET youth will not be absorbed at a rate that will be influential on the merSETA employment trends. The artisan development trends shown in Figure 4 indicate the importance of conducting this study on institutional arrangements for artisan development within the merSETA.

Figure 4: merSETA artisan development rate from 2003 to 2013



Source: merSETA, (2013)

1.4. Purpose of the study

Whilst it is widely accepted that artisan development is a contentious issue in South Africa, it not only has an influence on the DHET's Minister's intentions and on the challenges of the merSETA in the development of artisans, but also has an impact on the unemployment of youth. The purpose of this research study was to explore the range of institutional arrangements for artisan development in the manufacturing sector. The recommendations will contribute positively in minimising the challenges highlighted in the background to the study.

The intention of this research was to further remedy the knowledge gap that exists in institutional arrangements in relation to artisan development in the manufacturing sector. The arrangements in respect of linkages, partnerships and networks were explored to improve on the challenges related to 'getting in' and 'getting through' artisan candidates. The study also provides an insight on how institutional arrangements can either be a barrier or an enabler for the development of artisans. Through a literature review of practices in other countries the study attempts to explore the arrangements applicable for artisan development in those countries in comparison to the arrangements for artisan development within the manufacturing sector in South Africa.

1.5. Personal Experience

The researcher became interested in this study on both professional and academic levels. It is through the researcher's experience that he chose to conduct the research in this area. The researcher was motivated to make a contribution and input into the career space which he occupies. When he surveyed his professional environment – that of occupation and the skills development project - he realised the need for creating opportunities or possibilities for improvement in the scope of artisan development in the manufacturing sector.

The researcher is a qualified artisan welder and highly knowledgeable in the field of boilermaking. He is knowledgeable in at least 60% of the trades that fall in the scope of manufacturing sector. The researcher was an apprentice and later qualified at INDLELA when it was still known as Central Organisation for Trade Testing (COTT). He worked as an artisan for four years and later became an educator for Welding and Technical Drawing in a technical high school. He then got promoted as a senior lecturer at an FET College when it was still known as a technical college. He worked at the technical college for a year and was then promoted to the position of an assistant director at INDLELA, which was a directorate of the Department of Labour (DoL). The researcher's area of responsibility was centred on the management of trade tests.

The researcher then got promoted to work for the sector education and training authority (SETA). His responsibilities at the SETA involve the development of qualifications, learnerships and skills programmes and their registration with entities like the Quality Council for Trades and Occupations (QCTO), SAQA and DoL. He works closely with the FET Colleges on a capacity building project. He was also employed on a part-time basis as an external moderator by Umalusi for the period January 2007 to April 2013.

The researcher is currently responsible for the development and implementation of the learning programmes within the merSETA. Amongst other areas of responsibility, is the promotion of partnerships between the merSETA and its artisan development partners, particularly the FET College sector. The researcher's office was alerted to questions and challenges experienced by different institutions in the area of artisan development in the manufacturing sector, which further motivated him to investigate institutional arrangements for artisan development.

1.6. Research questions for this study

This research attempts to determine the nature of institutional arrangements between institutions that participate in the development of artisans in the manufacturing sector. The researcher also wanted to investigate the impact of arrangements within the different institutions. The researcher's primary research question was 'What institutional arrangements exist for the effective development of artisans in the manufacturing sector?' There were two categories of research questions designed for this study. The first category of research questions was aimed at investigating the arrangements and support mechanisms for artisan development within the manufacturing sector. The second set of questions sought to investigate the current best practices and challenges with regard to 'getting in' and 'getting through' artisan candidates through a specific artisan development route.

1.7. Research design

This study was based on qualitative descriptive research aimed at investigating, documenting, analysing and providing reflections on institutional arrangements for artisan development in the manufacturing sector. The research focuses mostly on the context within which the arrangements in institutions are made and not on the individuals involved in these processes.

Data collection in this study is mainly through face-to-face interviews, focus group discussions and information sourced from articles, workshops and conference papers, strategic plans, and other records available within the merSETA and its partners. The sampling in this research is based on relevant partners and institutions that contribute to or have an interest in the development of artisans. According to Cresswel (2012) the researcher should use the sample of participants who will add value in the research. It is against this background that the researcher identified the sample of participants who will best suit his research approach and methodology (Cresswel, 2012).

1.8. Limitations of the study

Whilst it was acknowledged that skills development policies might have an influence on the successes and failures of artisan development, this study does not seek to provide a detailed analysis of these policies. Since the context of this study was limited to the manufacturing sector, the findings of this study cannot be generalised. The findings in this study can, however, be extrapolated to other sectors.

1.9. Organisation and layout of the study

Chapter 1 (Research parameters)

The purpose of this chapter is to present the reader with the background to and insight into the whole research dissertation. It presents the introduction, background, rationale and motivation for the study and introduces the problem statement, research design, research questions and further presents an overview of institutional arrangements for artisan development in the manufacturing sector.

Key concepts used in the study are introduced and explained in this chapter. The reader, upon completion of this chapter, should have a fair understanding of the importance of conducting this research study. In addition, the chapter introduces the purpose of the writer in undertaking this research project.

Chapter 2 (Literature review)

The purpose of this chapter is to present a review of the literature pertinent to this study. The role of partners and arrangements in artisan development is described. The shape and structure of different artisan development methodologies are detailed in this chapter. This chapter reviews the literature on the four routes to artisan development: apprenticeship, learnership, Recognition of Prior Learning (RPL) and Internship. An international review on artisan development is sourced from Germany, Australia and the United Kingdom (UK), with a focus on the apprenticeship system used in these countries. The quality assurance mechanisms used in different approaches are described and the manner in which different artisan development methodologies are being supported are also described in detail.

Chapter 3 (Theoretical framework)

The three theories of collaboration, institutionalism and governance are described in-depth in this chapter, in relation to the methodologies of artisan development. This chapter is crucial in that it informs the analysis of the findings discussed in chapter 5. This chapter presents the relationship between institutional arrangements for artisan development and the theories used in the chapter. The relationship between the concepts of 'getting in' 'getting through' and 'getting on' is discussed in support of the theories.

Chapter 4 (Research design and methodology)

The qualitative research design approach is explained in this chapter, along with the scope of research, and the sampling methods used in relation to the background of participants in the project. The chapter further outlines the data collection techniques used and how the data was analysed. In conclusion, ethical considerations are explained in the chapter.

Chapter 5 (Presentation of data and discussion)

This chapter provides detailed analyses of data. It describes the approaches in institutional arrangements for artisan development within the manufacturing sector by different partners.

The responses that emerged from the interviews are analysed against the literature review. The conceptual framework and the theoretical framework are used in this chapter as a yardstick to draw conclusions on the best practices and challenges experienced. This chapter provides reflections on how the lack of proper institutional arrangements can affect the development of artisans.

Chapter 6: Conclusions and recommendations

This chapter presents the writer's interpretations of the findings in the study. Institutional arrangements are interpreted in this chapter as well as skills development related policies. The discussions and reflections are drawn from the summary of findings. The chapter finally makes recommendations for further engagements and any future research needed in the area of intermediate level skills development.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

This literature review seeks to explore available literature with regards to institutional arrangements in the development of artisans in Germany, Australia, United Kingdom (UK) and South Africa. Whilst comparison is made with other countries, the study is about institutional arrangements for artisan development in the South African post apartheid era in the manufacturing sector. The literature review in the selected countries assisted the researcher in getting a deeper understanding of the phenomenon under investigation.

The researcher chose to explore the literature from the German model because the German government is involved in the South African skills development architecture. The German government through its international development cooperation has, since the year 2000, been involved with the Department of Labour and currently the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) has partnerships with the DHET. The researcher also chose literature from the Australian and UK model because many of the qualifications currently registered on the South African National Qualifications Framework (NQF) have been benchmarked against the qualifications in these countries.

There are three crucial factors which have an influence on the success of artisan development. These factors are 'getting in', 'getting through' and 'getting on' the learner artisan in the process of artisan development (Osborne & Gallacher, 2004). 'Getting in' concentrates on how the artisan candidates get access from the feeder academic or occupational stream to the specific methodology of the artisan development route. 'Getting in' will include the artisan candidate's recruitment and selection process, minimum entry requirements and other academic and occupational learning programmes that may allow the artisan candidate entry into a specific artisan development model (Osborne & Gallacher, 2004).

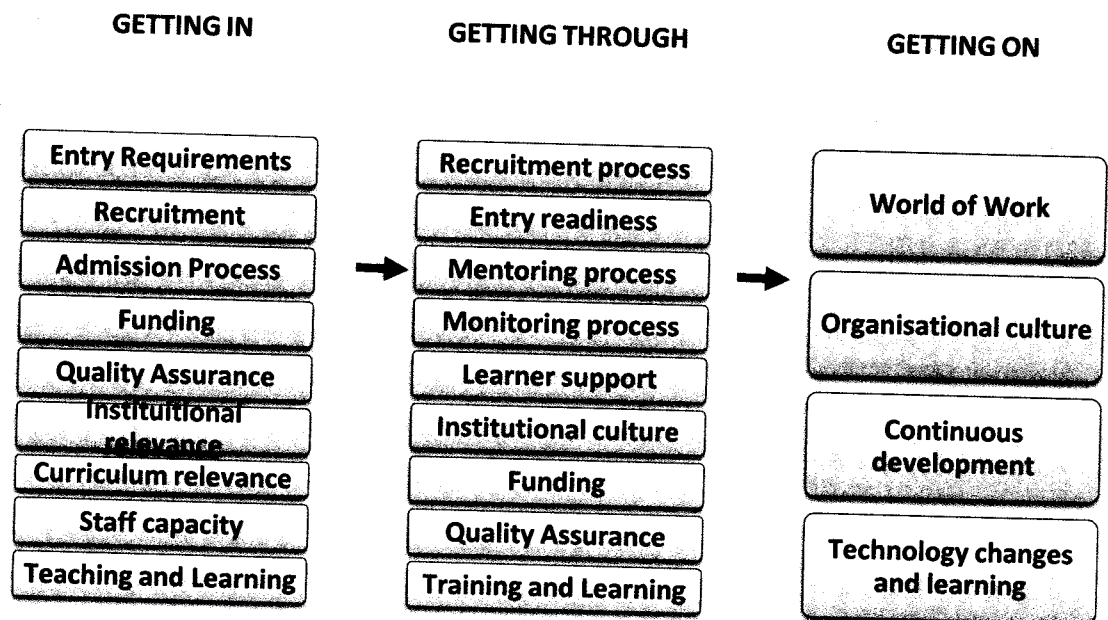
'Getting through' is about institutional support to learner artisans and it involves institutional arrangements to ensure that learner artisans become competent in their trades. Elements of 'getting through' include funding, learner artisan registration and induction processes, workplace approval, accreditation of training providers, monitoring of education and training, trade test preparation, accreditation of

Decentralized Trade Test Centres (DTTC) and certification of competent artisans (Osborne & Gallacher, 2004).

'Getting on' focuses on newly certified artisans, who have passed their trade test, keeping their skills and competencies current to ensure relevance in line with technological developments (Osborne & Gallacher, 2004). This study investigates artisan development up to the point when the artisan candidate attempts the trade test and is deemed competent.

The literature review in this chapter aims at identifying and analysing areas of success, challenges and best practices in respect of the strengths and weaknesses in the arrangements for developing artisans. Figure 5 below depicts the elements of the conceptual framework against which the literature in different countries will be reviewed. This framework was used to determine the successes and challenges of institutional arrangements in different countries referred to in this study.

Figure 5 A Framework for Artisan development



Source: Adapted from Mathekga, (2012)

There are different artisan development models in other countries but the most common approach is that of apprenticeship and that is why this study will focus extensively on the analysis of the apprenticeship system in the identified countries. The chapter concludes with a mapping of the processes to compare institutional arrangements in the

development of artisans in the four identified countries. Artisan development in all the selected areas is informed by the skills development policies in these countries. The literature review takes into consideration the views of scholars with regard to different artisan development models, which are informed by different policies, and evaluates them against the conceptual framework as outlined in figure 5 above.

2.2. Artisan development in Germany

Vocational education and training (VET) towards artisanship status in Germany falls under the ambit of different institutions including the federal government (Hensen, 2012). There is a strong characterisation of partnerships in the development of artisans in Germany, where employers, trade unions and VET schools have strong linkages to 'getting in' and 'getting through' the learner artisan to become a qualified and competent artisan (Hensen, 2012).

Traditionally, Germany has been following the dual apprenticeship model. The model has been modernised to be in line with the vocational education and training (VET) system which is being followed in other Organisation for Economic Co-operation and Development (OECD) countries (Deissinger & Hellwig, 2005).

An apprenticeship system in the OECD countries context is defined as 'a formal, structured programme of vocational preparation, sponsored by an employer, that juxtaposes part-time off-the-job training and work experience, leads to a recognised vocational qualification at craft or higher levels, and takes at least two years to complete' (Ryan, 2000: 43).

2.2.1 Institutional arrangements related to 'getting in' in Germany.

General education and the lower secondary schooling system are used as feeders for artisan development in Germany. Deissinger and Hellwig, (2005) noted that the standards of general education require improvement especially for those from the lower secondary schooling system. These standards have an effect both on the 'getting through' phase of artisan development and the institutional arrangements to produce quality artisans. Hensen noted that whilst the employers are responsible for furthering the career of artisans, institutional arrangements for artisan development are informed by the training regulation developed and agreed to with the federal ministry (Hensen, 2012).

Whilst the vocational schools are responsible for the theoretical and workshop practical skills covering 'getting in' of the artisan candidate, initial recruitment and selection is done by the enterprise. The arrangements are such that the vocational schools must ensure that they link with companies to ensure that vocational institutions exist because the vocational school cannot make recruitment and selection in the absence of the employer (Deissinger & Hellwig, 2005). According to Deissinger and Hellwig, (2005) apprentices from the lower secondary school are not equipped with the necessary skills to undertake apprenticeships successfully. It is against this background that companies showed their reluctance to increase training places, apart from the argument about costs. The changes in technology and new forms of work organisation also require apprentices who are well equipped with the entry level occupational aptitude for skilled work (Deissinger & Hellwig, 2005).

Whilst there has been a VET system model followed in other countries such as the UK, Germany has always followed the competence-based training (CBT) and modularisation model (Deissinger & Hellwig, 2005). The CBT institutional arrangements - where the focus was on the practical skills of an apprentice with less knowledge from the vocational schools - was not sustainable. This system started to have challenges when companies reduced apprenticeship intakes.

Deissinger and Hellwig, (2005) noted three traditional VET processes that have failed to be responsive to economic and social challenges - where the industry partnered with the VET in their artisan development arrangements. The first challenge relates to the recruitment of apprentices to the Dual System from the VET institutions responsible for preparing the artisan candidate during the phase of 'getting in'. This led to companies recruiting outside the Dual System, which is also the case in South Africa where companies will recruit apprentices from private providers. Secondly, there has been a challenge with regard to funding as a result of the cost-intensive Dual System. Thirdly, there has been a challenge with regards to institutional theoretical training and workplace practical training, where co-operation arrangements between the vocational schools and companies did not work effectively (Deissinger & Hellwig, 2005).

Traditional institutional arrangements were modernised to keep apace with the current VET system followed in other countries. Part of the modernisation included the 'review of training schemes as well as the attempts to induce companies to offer more training places to school leavers' (Deissinger & Hellwig, 2005:312). Deissinger and Hellwig,

(2005) also noted that the review in the arrangements to increase artisan candidates in 'getting in' took consideration of establishing apprenticeship co-operation between institutions to increase the quantity and quality of apprenticeship within the system.

Other institutional arrangements were noted by Pilz, (2007) with regard to the modernisation of the dual apprenticeship system in Germany. Pilz (2007) noted that there was a need to reform apprenticeship in commerce and business administration. The key reason for the modernisation of the apprenticeship system as outlined by Pilz (2007) was 'the rapid changes in the world of industry and business which required an adaptation of vocational education institutions in order to match the needs of young people and employers' (Pilz, 2007: 70). The same view for modernisation of the apprenticeship was noted and also supported by Deissinger (2000) and Lipsmeier (1994). Pilz's reason for making the commercial sector his object of research was informed by the high number of apprenticeships in this sector and also the increase of apprenticeships in this sector over the past decades (Pilz, 2007).

Grollmann and Rauner (2007) are of the view that as part of 'getting in' artisan candidates, the apprenticeship curriculum should be grounded on the learning involved in productive work processes as a core. The learning of an apprentice at different institutions must be embedded into business processes. This view by Grollmann and Rauner (2007) suggests the importance of having a well sharpened curriculum at vocational schools institutions. The learning process of an apprentice first focuses on building commitment to an occupation through the proper career guidance at school level ('getting in') whereas companies should ensure that there is proper mentoring and development of the sense of responsibility at workplace institutions ('getting through'). According to Grollmann and Rauner (2007), there are areas of institutional arrangements that require improvement in order to ensure that an apprentice becomes productive during the process of learning at enterprise institutions. These areas involve institutions that prepare an apprentice to 'get in' and those that prepare an apprentice to 'get through'.

Pilz (2007) starts by describing the old dual apprenticeship system process in Germany before describing the elements of the new dual apprenticeship system process. The best approach to understanding the old and new modes of the dual apprenticeship process was to compare the curricula and syllabuses as well as the political papers through a review process. Similar to the description of Deissinger and Hellwig (2005) the apprenticeship system is described as one that is

based on the co-existence of the two pillars providing learning and training. In this case, the two pillars that need to work side by side are the company and the vocational school required to have institutional arrangements for artisan development (Pilz, 2007).

The Federal Parliament had to review the Vocational Training Act to ensure that the approaches mentioned above are supported by the more modernised and flexible approaches that encourage the supply of training opportunities through institutionalism. According to Deissinger and Hellwig (2005), the focus in the revised act was based first on ensuring that there is an increase in the number of young people taking up vocational training in the Dual System. Secondly, that there should be an international competitiveness through training. Thirdly, there should be accountability for the training supplied and the quality thereof emerging from institutional arrangements. Fourthly, there should be a streamlined transition from the VET systems and the Dual System which includes vocational full-time schools and vocational preparation courses. Lastly, cooperation between vocational schools and companies as key institutions for artisan development should be sharpened to increase artisan development. These policy initiatives required close monitoring and evaluation to close the gaps between institutions that have led to the decline in artisan development (Deissinger & Hellwig, 2005).

2.2.2 Institutional arrangements related to 'getting through'.

Grollmann and Rauner (2007) noted that there are two important elements for the success of an apprenticeship programme in Germany. These elements include quality and costs. These elements were investigated by Grollmann and Rauner (2007) who considered possibilities of increasing quality without increasing or raising the costs of 'getting through' artisan candidates. Grollmann and Rauner (2007) highlighted the need to explore innovative ways in the implementation of the apprenticeship system. The importance of ensuring that quality is maintained without an increase in costs is an important factor in institutional arrangements for artisan development. This scenario is supported by the fact that both the companies in Germany and South Africa prioritise the decrease of artisan candidate intake when production and quality turn poor. In South Africa companies have also been withdrawing from apprenticeship provision. The apprenticeship intake increased from 6 percent in 1970 to 8 percent in 1980. The rate dropped to 4 percent in 1994 as a result of costs to fund the apprenticeship programmes.

In dealing with the funding arrangements related to 'getting through' artisan candidates, Pilz (2007) noted that the company is responsible for financing the training costs and allowances for learners, whilst the salaries of teachers at the vocational school are paid by the federal state to support artisan candidates to 'get in'. The whole apprenticeship process is regulated and standardised through state laws which are based on the philosophy of vocationalism which means that 'training is workplace-based and predominantly practical by stressing the importance of the work experience during the training period' (Pilz, 2007: 71). The most important part of these institutional arrangements is the fact that skills requirements are informed and defined by workplace requirements. This philosophy suggests that the vocational schools and institutions are to prepare the artisan candidates in line with the enterprise institutions to increase the quantity and quality in 'getting through' artisan candidates. Through this process, the apprenticeship system is widely accepted by all the stakeholders involved in institutional arrangements for artisan development and the skills acquired are easily transferred from one sector to another sector (Pilz, 2007). Institutional arrangements are critical factors in increasing artisan development through better collaboration between institutions.

Although the old dual apprenticeships system was widely accepted by stakeholders there was a need to modernise the German apprenticeship system. There was a need for different institutions to develop collaborative arrangements in modernising the apprenticeship system. In some of the areas considered during the modernisation process, different apprenticeships were treated differently with regard to their curriculum and the implementation process. Where the stakeholders were happy with the old dual apprenticeship process, such curricula were not subjected to modernisation. The focus of the modernised apprenticeship system was not only on the knowledge part but also took reasonable consideration of the lessons learned at the vocational school institutions that prepare the artisan candidate to 'get in' in artisan development programme. This means that duplication of what has been learned is easily avoided in the new system where different institutions work side by side.

The new modernised apprenticeship system also makes provision for different certification for the vocational content and for workplace content, which is assessed by means of the final summative assessment which is quality, assured and certified by the chamber institutions (Pilz, 2007).

Grollmann and Rauner (2007) noted that institutional arrangements to support 'getting through' artisan candidates is important but further noted that it is equally important to ensure that the enterprise maintains its productivity. According to Grollmann and Rauner (2007), the quality of apprenticeships can be improved without an increase in costs where institutional arrangements are well-managed and coordinated. According to Deissinger and Hellwig (2005), there are challenges in the dual apprenticeship system arrangements that have led to the drastic reduction in apprenticeship intake and quality of the provision of apprenticeship. Some of the key challenges identified within the system included difficulty ranging from compensating for the loss of work and training places to providing a sufficient supply of training places that meets the requirements of both industry and young individuals.

In conclusion, when considering the artisan development process after the completion of which the artisan is referred to as a craft person, it becomes clear that companies have more power in the training of apprentices. The system in Germany as per the modernised apprenticeship system is more fragmented in that there are different regulations for different apprenticeships. It cannot be concluded that the current new system is working because there has been a decrease in the intake of the number of apprentices and an increase in the number of apprenticeship applications (Pilz, 2007). The research conducted by Grollmann and Rauner (2007) requires careful consideration before implementation in that there are many elements that should be of the right quality to produce a productive apprentice, from the beginning of an apprenticeship programme. The researcher notes that whilst there are some challenges in the artisan development system in Germany, the identity of an artisan is equally recognised as is the case with other forms of learning.

2.3. Artisan development in Australia

This section of the literature review investigates institutional arrangements in the development of artisans in Australia. Whilst the study could largely distinguish between the two institutional arrangements for artisan development, 'getting in' and 'getting through', in the German literature review, the Australian literature has even more overlaps in the two processes of institutional arrangements. This section reviews the two processes simultaneously. The process of 'getting in' and 'getting through' artisan candidates will be reviewed through the flexible delivery of apprenticeship training as the model of artisan development, with a focus on preferences, problems and

challenges (Smith, 2000). The second component of the review will explore the debates related to the quality of training by institutions in relation to the non-completion rates of apprentices (Snell & Hart, 2007). The third component of the processes will explore the way on- and off-job training for apprentices juxtaposes one another through institutional arrangements (Harris, Simons, Willis and Carden, 2003). The last part explores how the institutional arrangements of the Australian apprenticeship system survived whilst there is a decline in other parts of the world. This part investigates what is done differently in Australia with regards to the institutional arrangements of partners involved in artisan development (Toner, 2008).

At enterprise level, where the interest is mostly the profits, a flexible delivery and training model is preferred for artisan development. According to Smith (2000), the enterprise serves as the custodian of training and the enterprise itself will appreciate it if the product produced through training is relevant to their needs and be delivered at the right time, right place and at the right price. This arrangement by the enterprise suggests that artisan candidates from the vocational schools should be recruited into the system of apprenticeship with enough knowledge to carry out the training and production requirements simultaneously. The concept of flexible delivery in all its definitions has an element of 'independence and self-directedness in learning' (Smith, 2000: 484). This suggests that there should be well collaborated institutional arrangements between the VET institutions responsible for making provision for 'getting in' artisan candidates and the enterprise responsible for 'getting through' artisan candidates. Smith (2000) noted that training provision through flexible delivery should also be supported by all stakeholders involved in institutional arrangements for artisan development and he recognised that this is mostly not the case. Programmes that are offered through the flexible mode should be of value to the enterprise and the apprentices and this, according to him, is not always the case. This suggests that institutional arrangements for artisan development through flexible delivery may not always guarantee the success of an artisan candidate.

Institutional arrangements for flexible delivery of training are such that an apprentice should be productive at work place institutions. Smith (2000) states that the challenge with flexible delivery is influenced by apprentices who are not well-equipped through the process of 'getting in' to be independent and self-directed. Institutional arrangements at the workplace require that the learner should be self-driven with minimal supervision, while learners are not motivated where

institutional arrangements require less interaction with the mentor at the workplace. The assumption is that the learner has adequate knowledge from the vocational institution to be independent and self directed, which is not the case (Smith, 2000).

Most of the apprentices in the process of 'getting through' rather prefer a learning context that is instructor-driven with clear expectations from the instructor. The apprentices prefer to be more engaged with their instructors at the workplace to gain confidence in what they do. They value the support provided by expert workers at enterprise institutions. The research conducted has shown that although the companies never confirmed that they offer flexible delivery, and there are no structured programmes to show that there are institutional arrangements to support the apprentices, flexible delivery is preferred by employers in that the important part for them is production and the final product produced by an apprentice (Smith, 2000). The emphasis on profits as opposed to the quality of the provision of training, suggests that the enterprise institutions and the VET institutions do not have linkages that support artisan development.

Smith (2000) states that the enterprise institutions making provision for 'getting through' artisan candidates in Australia have no structured programme to be followed and signed off upon completion of tasks at workplace institutions. Evidence of competency of an apprentice is mostly measured through an apprentice being able to produce the final quality product that adds profit value for an employer. This kind of institutional arrangements for flexible delivery at the workplace is not favoured by apprentices. Apprentices prefer to have a structured guide that will assist them to set their own learning goals. The skills that have been learned off-the-job are only valued if they can be applied at the workplace in a structured manner. Some of the challenges relate to trainers and supervisors who are not well-trained to offer structured learning. Supervisors require skills to develop structured support for the apprentices at the workplace, which can be achieved if training providers are used to support the workplace-based instructors. Enterprises are mostly concerned with business performance and find it difficult to link training of apprentices to their business performance (Smith, 2000).

According to Snell and Hart (2007), there has been a growing concern with regards to the non-completion of apprenticeships in Australia. Most of the debates around non-completion are generated by the quality of provision of training for the apprentices during the process of 'getting through'.

This necessitates an investigation into institutional arrangements with regards to quality. Snell and Hart (2007) mentioned that in their research with regard to the provision of quality by institutions involved in arrangements for artisan development, the respondents were not in agreement with regards to what is meant by quality training. They did, however, agree that the cause for the high attrition rate was the lack of quality in their training during the process of 'getting through'. According to Snell and Hart (2007), three issues were raised with regard to the quality of training in institutional arrangements. The issues raised were 'a perceived shift away from off-the-job training towards fully on-the-job training, the narrowing of skills, the loss of transferable skills and a general lack of training taking place' (Snell & Hart, 2007: 504). The section below provides the details of issues raised in relation to institutional arrangements during the process of 'getting in' and 'getting through'.

On-the-job training making provision for 'getting through' has more focus on doing the actual work at the work place institutions without necessarily a deeper understanding of the work being done. It emphasises the practical part of the work for production purposes, which benefits the employer alone. The employers are mainly concerned with the final product and the profit margins and have less consideration for the learning processes of apprentices. Contrary to on-the-job training, the learners who are registered for the off-the-job training spent much of their time at theoretical institutions. Table 1 below as extracted and modified from Deissinger, Smith and Pickersgill (2006) shows the advantages and disadvantages of the on-the-job and off-the-job training in Australia taking place at the workplace and college institution in relation to 'getting in' and 'getting through'.

Table 1: Advantages and disadvantages of different modes of acquiring artisan qualifications in Australia

	Advantages	Disadvantage
Full-time at college (getting in'	Available to those without jobs.	Qualification sometimes regarded as low status.
	Student is able to focus on learning rather than production.	College may not be able to replicate up-to-date workplace environment and equipment.
	Student is more likely to learn generic and	

Advantages		Disadvantage
transferable skills.		Assessment is not undertaken in true workplace conditions.
Part-time at college/full time job (apprenticeship model) 'getting in' and getting through'	Student gains different types of learning and experience in the different environments.	Lower status compared with the alternative of higher education.
	A balance between generic skills and authentic experience.	Not available to those without jobs. Sometimes perceived to be inadequate links between work and college. Employer loses student on his or her college days.
Full-time fully on the job ('getting through')	Authentic learning environment.	Not available to those without jobs. Qualification sometimes regarded as low status.
	Employer does not lose worker to part-time college classes. Student perceives training as relevant	Employer may not allocate sufficient time to training. May be insufficient theory base to learning. Qualification can be very narrow, focused on one situation only.

Source: Deissinger, Smith and Pickersgill (2006)

Apprentices tend to prefer the learning and development intervention in which there is a balance between the off-the-job and the on-the-job training ('getting in' and 'getting through'). The challenge faced by both the training providers as institutions for 'getting in' and the employers

as institutions for 'getting through' is to strike the balance between the workplace learning and institutional learning. Some apprentices get bored when confined to the workplace environment without any meaningful knowledge theory to supplement their practical skills and vice versa. This suggests that there is a challenge in the Australian system for institutional arrangements to motivate artisan candidates in 'getting in' and 'getting through'.

The other challenge experienced by apprentices is with regard to employers only providing exposure to a specific routine of work as opposed to the full trade tasks. The arrangements by employers in Australia are found to have less interest in providing the apprentices with additional skills beyond what their specific job tasks require during the process of 'getting through'. Most of the employers in Australia also see an apprentice uptake as part of low wage strategy in which they also benefit from government financial incentives. The apprentices are of the view that the scope of the apprentice curriculum is being narrowed (Snell & Hart, 2007). The researcher is of the view that institutional arrangements described above require improved collaboration in which there is a balance between off-the-job and the off-the-job training.

Institutional arrangements for artisan development during the on-and off-job training environments should be complementary to each other to ensure that training and development of artisans becomes a success. There are different perceptions around the two primary learning environments. The two sites are intended to prepare an apprentice to the level of competency as required by industry. According to Fuller and Unwin cited in Harris et al. (2003) the challenge with the traditional apprenticeships is the 'dualistic conception of theory and practice where theory is what is learned at the college and practice is what apprentices do at work' (Harris et al. 2003:83). Institutional arrangements for artisan development should not view the two learning sites, at working institutions and at the college institutions, as different domains. Seeing the two learning sites as separate domains is linked to the traditional way of thinking which tends to separate thinking from action (Harris et al. 2003). This is unfortunately how learning is perceived by institutions in Australia.

Harris et al (2003) states that on-job practical experience can help apprentices to learn their off-job theoretical knowledge more easily and off-job theoretical learning can help apprentices with their on-job practical learning. This can only be achieved depending on the arrangements of the institutions involved. The practical experience gained at the workplace gives an apprentice a finer and better

understanding when he engages with his theoretical knowledge at the college. The apprentice will easily visualise what he has experienced at the workplace when dealing with the knowledge tasks. The knowledge gained from the college also assists the apprentices to have better techniques when dealing with their practical tasks at the workplace. The apprentice comes to the workplace already knowing how to do calculations and drawings (Harris et al. 2003).

The employer supervisor does not have to teach or closely supervise an apprentice on these matters. This constitutes an important component of institutional arrangements for artisan development in preparing an apprentice in Australia to be a competent tradesperson or crafts person (Harris et al. 2003).

When evaluating the arrangements above the researcher is of the view that there is a disjuncture between the enterprise institutions and the college institutions responsible for the development of an artisan in Australia. Complementarity is not always viewed positively by the employer's institutions and the college teachers institutions involved in artisan development. Some employers view the two learning sites as two different environments. Some employers responsible for 'getting through' artisan candidate in Australia view what is learned at the college where artisan candidates are prepared in 'getting in' as not sufficient to prepare artisans for the real world of work but very little is done to support each other. On the other hand, the trainers or teachers at the college also view the two learning sites as not being complementary to each other. They are of the view that different employers have different views and understandings regarding the knowledge and practical skills gained at the college. Sometimes the apprentices from the off-the-job learning get to be supervised by people who are not qualified artisans or who do not have the requisite supervisory experience.

The other institutional arrangements investigated in artisan development in Australia relates to the costs and benefits in Australian vocational education and training as applicable in 'getting in' and 'getting through'. The training costs for apprentices are high in Australia. Direct costs include apprentice wages, building infrastructure, equipment, teaching material and salaries for the training personnel. The social rate of return is very high in Australia. The institutional arrangements in Australia are such that the Australian government, individuals and employers contribute to the costs of training apprentices (Hoeckel, 2008). Table 2 below illustrates the vocational education and training (VET) costs borne by different

institutions in Australia as part of arrangements in the development of artisans.

Table 2. VET costs borne by different stakeholders in Australia

	School and higher education	VET	On-the-job training
Individual	Fees and student time	Fees and student time	Accept lower wages
State	Costs of education institutions, scholarships	Costs of education institutions, scholarships	As an employer
Employer	Limited support for staff doing degrees-fees and time off	Support for staff doing formal courses-fees and paid time off	Pay wages higher than productivity; time of experienced workers; mistakes and wasted resources, in-house training courses

Source: Richardson, S. (2005)

The researcher noted that there are some arrangements in the Australian artisan development system with regard to the funding mechanism for artisan candidates. The arrangement does not encourage the artisan candidates to prefer the artisan route because individuals have to make contributions, whereas employment is mostly guaranteed before completion of the apprenticeship system. Apart from the challenges that have been investigated in the Australian apprenticeship system, according to Toner (2008), the levels of apprenticeship training have survived over the past two decades. The Australian government has been promoting a neo-liberal training agenda which advocates training policies that support economic development through private industry.

The focus was on policy change to ensure that there is a notion of flexibility in the training content and delivery. Policies in Australia have been aligned to individual company needs in different states. Part of

the neo-liberal agenda has been the opening of what they termed the 'training market where the state also opens the off-the-job training to private providers to enhance the competition between public off-the-job providers' (Toner, 2008: 432). This approach of institutional arrangements through the provision and review of policies has contributed positively to the increase of artisan candidates in Australia.

The introduction of the Australian Qualifications Framework (AQF) as an institutional mechanism contributing to artisan development also boosted the sustainability of the apprenticeship system in Australia. The introduction of the traineeship system which is equivalent to learnerships in South Africa has also taken care of the low-skills programmes offered over a short period of time. The policies also realigned the time-based apprenticeship system to a much broader flexible training system for those apprentices who can qualify much quicker depending on their training package. The Australian states have policies that are critical in the evaluation of the implementation of apprenticeship system for artisan development (Toner, 2008) and this has been an area when institutional arrangements worked effectively in Australia. The researcher is of the opinion that the Australian policies are contributing positively to the increase of artisan candidates.

The integrity of the apprenticeship system is maintained by the representation of employers and unions in regulating the content of apprenticeship system. The Australian states also maintain the licensing system for occupations which provides for continuation of trades-based occupation labour markets and also regulates the completion of an apprenticeship. The intake of Australian apprentices is demand-driven and informed by the industry. The employers in some states are involved in the final assessments of apprentices. The states support public-private partnerships wherein even the smaller companies are required to take on apprentices. The last intervention by Australia government was the removal of age restrictions in the training of apprentices. In the past the intake of apprentices was restricted to people less than 25 years. The inclusion of older persons was favourably received by employers who felt that older apprentices are more committed than younger persons (Toner, 2008). These institutional arrangements also contributed to the increase in artisan development in Australia. Whilst there are challenges in institutional arrangements in Australia for artisan development, the researcher concludes that there are positive interventions aimed at sustaining artisan development in Australia mainly through government initiatives in the form of its policies.

2.4. Artisan development in the United Kingdom (UK)

According to Fuller and Unwin (2009), artisan development in the United Kingdom is less organised and more disjointed when compared with other Organisation for Economic Co-operation and Development (OECD) countries. The dominant apprenticeship-based model for artisan development in the UK has largely been ignored by policy makers in favour of other forms of learning. Three competing elements are discussed in this section and they include 'the model of learning; employer need; and the way the State uses apprenticeship' (Fuller & Unwin, 2009:407).

Similar to the Australian apprenticeship model, the different elements of the conceptual framework will be presented simultaneously to evaluate the UK model and its institutional arrangements. According to the Snell's (1996) study (as cited in Fuller & Unwin, 2009), integral to the apprenticeship was the expectation that the apprenticeship should respond to moral, social and economic dimensions.

Part of the institutional arrangements in the UK is the provision of the curriculum of an apprentice which builds in elements such as religious doctrine and personal morality; however the role of employers has changed significantly over the years. The state also plays an important role in institutional arrangements to ensure that it fulfils its role in its strategic agenda for economic growth. The whole approach to institutional arrangements for artisan development in UK as opposed to other OECD countries also focused on the social growth of apprentices which could compromise the technical competence of the qualified artisan (Fuller & Unwin, 2009).

The two main type of apprenticeship programmes are those that lead to a level 2 qualification and those that lead to an advanced apprenticeship at level 3. 'Getting in' is mainly informed by the target for the apprenticeship leading to level 2 qualifications, which is the youth aged between 14 and 16 years. Upon completion of level 2, the youth can progress to level 3 qualifications which constitute the stage of 'getting through'. The youth-focused type of apprenticeship had challenges until the introduction of the new Modern Apprenticeship (MA) model in 1993 which will be discussed in the next sections (Fuller & Unwin, 2009). Similar to the South African FET College system it can be concluded that the youth-focused type of artisan candidate does not produce the qualified artisan. Artisan candidate are to proceed to the next level of 'getting through' before they can attempt the trade test.

According to Payne (2002), the institutional arrangements for artisan development through the apprenticeship system in UK continued to fail to provide high quality trades people who are responsive to economic growth, despite the introduction of the MA policy in 1993. 'Getting through' experienced challenges as a result of employers not committed to the system. The MA system was developed as a form of institutional arrangement aimed at getting the employers to be the drivers of the system while the National Training Organisation (NTO) was tasked to be the driver in the design of the MA framework.

The MA framework was developed with the intention of having the level of the artisan qualification at National Vocational Qualification (NVQ) level 3. Over and above the technical skills, the framework also covered Information Technology (IT), communication, team work, numeracy and problem-solving skills. Unlike the system of apprenticeship in Australia where union involvement was compulsory in the development of the apprenticeship system, union involvement was left at the discretion of NTA in the UK (Payne, 2002).

The MA had a positive reception from many employers and apprentices but it still had some challenges. 'Getting through' artisan candidates had a major challenge where there was a low completion rate of apprentices. More than half of the indentured apprentices do not complete their NVQ level 3 programmes (Payne, 2002). This situation resonates the South African artisan development system in which some of the artisan candidates enrolled at the FET College institutions will not proceed and be absorbed into apprenticeship or learnership programmes.

The second challenge identified within the MA programmes was the integration of key skills into the MA. Key skills in the context of the MA system referred to social responsibility related skills that were a focus of youth training in the system prior to MA. It is noted that in South African FET College institutions there are subjects such as life orientation which are viewed as not being critical in the curriculum of the artisan candidate.

The other challenge in the UK was that most apprentices did not receive any formal training other than non-structured supervision received at the workplace institutions. Formal training in the context of MA referred to institutional training received at the college (Payne, 2002). In light of the arrangement in the UK, the researcher noted that in South Africa there are no informal institutional arrangements in which some of the candidates from the FET College institutions receive some informal experience in their field of study by working with

artisans but who, at the same time, are not formally indentured as apprentices or learners in learnerships.

In his research study of institutional arrangements for artisan development in the UK, Ryan (2000) made a further investigation on educational roles, workplace training and financial attributes within the MA system. Ryan (2000) indicates that there is no statute or law that regulates 'getting in' and 'getting through' artisan candidates in the UK, unlike other OECD countries, where, there is clear legislation that describes what an apprenticeship is and what it is not. Ryan (2000) further mentions that in other OECD countries provision is made on how on-the-job ('getting through') and off-the-job ('getting in') learning should be acquired towards the development of artisans, which is not the case in the UK. The duration of an apprenticeship programme is not specified and there are no vocational teachers involved in the system (Ryan, 2000). This form of approach is similar to the South African system of learnerships, which was not originally intended to produce artisans.

There is no educational requirement for participation in the MA programme in the UK. The NTOs do require in some instances that the employers ensure that apprentices receive off-the-job training from the vocational schools institutions if they (the employers) are to receive financial support through the MA, but it is not compulsory for all the NTOs in the UK to have this institutional arrangement with the vocational schools for theoretical training. The MA has a focus on the attainment of the certificate but does not consider how competence is achieved (Ryan, 2000). From the study done by Ryan (2000) the researcher recognises that there are limited formal institutional arrangements in the UK for artisan development.

There are no statutory requirements that legislate the workplace training 'getting through' of apprentices in the UK and the sectoral NTOs do not have powers in regulating workplace training in which orientation, funding, quality assurance, certification processes are formalised and well-documented. There are no institutional arrangements to ensure the inclusion of trade unions and teacher representatives in the NTOs. Some of the employers prefer to shorten the apprenticeship training periods in favour of utilising the apprentice for production and profit and this is done easily in instances where their own employees assess the apprentice in training. This suggests that, should the employer view an apprentice as having acquired the skills for the trade at a quicker pace; such artisan candidate can be accelerated to get the final certificate as an artisan. Unlike in other OECD countries, funding arrangements for MA in the UK is not

legislated. Where there are funding arrangements, they differ across different sectors. The allocation of remuneration for apprenticeships in the UK is also variable (Ryan, 2000). The researcher notes from these arrangements that there is a similar set-up across different sectors and chambers in South Africa, which is determined by the bargaining council institutions.

The challenges experienced with MA system as introduced in 1993 led to its revision through the introduction of the Advanced Modern Apprenticeship (AMA). The Advanced Modern Apprenticeship Advisory Committee (AMAAC) was established to craft the AMA system in 2001. The committee looked at the areas of quality versus inclusiveness, including weak employer involvement in the system. However these initiatives did not yield any positive results (Payne, 2002).

2.5. Artisan Development in South Africa

In his review of the National Skills Development Strategy in South Africa, Kraak (2008) alluded to the fact that enterprise training in South Africa has undergone changes since 1994 after the African National Congress-led government took over. The new training regime that was introduced sought to up-skill black South Africans who were excluded from education and training opportunities under the apartheid system. The Skills Development Act (SDA) of 1998 was introduced as a legislative tool to address some of the imbalances of the past. During the apartheid era, central to enterprise training, the focus was on apprenticeships as the dominant route in the development of artisans. The SDA was introduced and gave prominence to learnerships as opposed to traditional apprenticeship programmes (Kraak, 2008).

The new learnership system is similar to modern apprenticeship system in the UK. The learnership has a structured learning process for gaining theoretical knowledge and practical skills in the workplace and it leads towards a qualification registered on the National Qualifications Framework (NQF). Although the formal completion of the four levels of learnerships did not result in a qualified artisan, they did provide the learner with employable skills. The clauses S13 and S28 of the Manpower Training Act (MTA) of 1981 were retained for continuity in artisan development. Although the learnership system had good intentions of closing the gaps caused during the apartheid era, they led to a further reduction of qualified artisans in the country. Companies focused mostly on the learnerships because of the funding mechanism that promotes intake of learners on learnerships as opposed to apprenticeships (Kraak, 2008). Contrary to the

arrangements in the act, the merSETA made provision for artisan candidates who are in possession of their trade related NQF level 4 qualifications to attempt the trade test through section 28 of the MTA. These arrangements were unique to the manufacturing sector until they were indorsed in the act through the SDA of 2008 as amended.

Artisan development in South Africa dates back to the 1800s through the immigrant craft workers from the UK. This model was mainly based on the structured apprenticeship programme. The then apprenticeship programme was structured around the discriminatory policies of the apartheid system that excluded blacks. According to Gamble (2004) the apprenticeship system has evolved over time from when it was not regulated by the state to the point where the state got involved in regulating and shaping it.

The last regulatory approach by the apartheid government to artisan development was the MTA. The MTA superseded the previous Training of Artisans Act, 1951 (Act No.38 of 1951) which superseded the Apprenticeship Act, 1944 (Act No. 37 of 1944). Five critical conditions were to be met before attempting the trade test, including the entry requirements which stipulated that the apprentice must be 16 years and be in possession of standard 7 and these arrangement covered the process of 'getting in'. Secondly, an apprentice must be trained for the period of 3-5 years depending on the trade in which the elements of 'getting through' were covered. Thirdly, the apprentice must have completed National Certificate, Part 2 (NATED 190/191-N1-N6) also covering the elements of 'getting in'. Fourthly, the apprentice must have completed the work experience and, finally, the apprentice must write and pass the trade test thereby fulfilling the elements of 'getting through' (Mukora, 2008).

The literature review in this research study is focused on the period from the year 2000 and beyond. This is the period when the Sector Education and Training Authorities (SETAs) were launched. During the same period, as part of institutional arrangements, learnerships were introduced parallel to apprenticeship training and the MTA section 28 candidates. The focus of institutional arrangements was, however, mainly on learnerships because they were linked to the new government as opposed to apprenticeships that were linked to the apartheid government. The SETAs as part of institutions designed to implement learnerships had difficulty in introducing proper processes to manage both the learnership and apprenticeship systems. Some SETAs chose not to indenture new apprentices whilst the merSETA continued to indenture new apprentices, although at a lower scale than previously.

Further Education and Training (FET) Colleges were identified by the Minister of Education Naledi Pandor as central institutions in the delivery of priority skills, including the trades. The traditional NATED programmes were identified as being outdated and not responsive to industry needs in that the theory in the programmes was disjointed from practice. Consequently the new National Certificate (Vocational) (NCV) curriculum was developed to replace the NATED programmes and it was introduced in 2007 at NQF level 2.

The replacement of the NATED programmes in institutional arrangements as programmes for 'getting in' led to challenges for registered apprentices to qualify for the trade test because section 13 of the MTA was not repealed and was still the legislated requirement. According to Young & Gamble (2006), FET College learners do not have the necessary exposure to work experience and they only focus on theory for examination purposes. Elliot (2006) also shared the same view saying that the industry institutions do not perceive FET Colleges as producing the kind of skills they require. According to Gamble (2003), workshop training and workplace experience are crucial in artisan development. Workshop training boosts the transmission of the trade theory principles whilst the work experience teaches the procedures in a particular work environment. Whyberg (2007), in affirming the views above, argued that the FET Colleges should deliver on the skills and competencies required by the employers. The researcher is of the opinion that institutional arrangements with regard to the replacement of the NATED programmes with the NCV programmes were not properly managed. The fact that industry did not support the NCV programmes for effective artisan development is not in the best interest of the sector.

In providing the strategy for the development of artisans, the Artisan Development Coordinating Committee (ADCC) in 2007, announced the four routes to be followed towards becoming a qualified artisan in South Africa. The routes were legislated through the amendment of the SDA in 2008. The four routes as legislated in the SDA (2008) are listed and explained as follows:

2.5.1. Apprenticeship Route

This form of institutional arrangement involves the registration of an apprentice with a SETA, on an NQF registered trade qualification. An apprentice contract is signed and the apprentice spends between 2 and 4 years to obtain an artisan status. There is only one exit point with this route. This route can be funded through the employers, the National Skills Fund

(NSF) and SETA discretionary grants. The relevant Education and Training Quality Assurance body ensures the provision of quality learning and assessment. Upon completion of the knowledge, practical skills and work experience modules, an apprentice attempts the trade test and if s/he is found competent, s/he will be issued with a certificate by the DHET through a relevant SETA. The successful apprentice will also be registered as an artisan.

The employers are responsible for 'getting through' artisan candidates by providing funding for the programme and mentoring of the apprentice. The merSETA facilitates and provides administration by registering the contracts. The merSETA also conducts quality assurance of the programmes before the artisan candidate attempts the trade test. The FET College institutions are critical in the provision of 'getting in'; this involves offering theory and some elements of practical work towards the acquisition of the NCV. The DHET issues the certificates while SAQA conducts quality audits on the training programmes. The role of these institutions mentioned above is similar with the provision of the learnership programmes defined in 2.5.2 below.

2.5.2. Learnership Route

The learner is also registered with a SETA on an NQF registered trade qualification. There are exit level points and upon completion of NQF level 4 the learner can, if s/he so wishes, attempt the trade test. This route is also funded through National Skills Fund (NSF), employers, and the discretionary grant system.

The relevant ETQA body ensures the provision of quality learning and assessment. The learners registered through the learnership route and who wish to attempt the trade test will apply in terms of section 28 of the MTA. If the learner is found competent, s/he is issued with a certificate and be registered as an artisan. The additional arrangement with the merSETA is the arrangement of the trade test for learnership candidates under section 28 of the MTA.

2.5.3. Recognition of Prior Learning Route (RPL)

The learner is registered as an RPL learner with the Institute for the National Development of Learnerships, Employments Skills and Labour Assessment (INDLELA) on a NQF-registered trade

qualification. Upon completion of the required RPL assessments, the learner attempts the trade test.

This route may be funded by employers or through the NSF. INDLELA is responsible for the quality assurance of this route. There are no records of artisans that have qualified through this route currently although this route only replaced section 28 of MTA from the 1st October 2013, which paved the way for a large-scale national Artisan Recognition of Prior Learning (ARPL) programme by INDLELA. The institutions defined in the apprenticeship and learnerships programmes are also applicable with the RPL route. This route is covered mainly through the process of 'getting through'.

2.5.4. Internship or Skills Programme Route (NCV)

The latest emerging trend in artisan development is the development of artisans in South Africa through the internship route. The intention of this route is to source the NCV graduates from the FET Colleges and take them through an artisan development route that recognises the learning acquired from the FET College. This route is catered for in terms of section 26(d) of the SDA (2008), as amended. Artisan candidates undergoing this route are expected to gain workplace experience for a specific period in order to be eligible to attempt the trade test.

According to the Singizi (2011), report, the pilot study conducted by the merSETA in conjunction with the Swiss-South African Cooperation Initiative (SSACI), National Business Initiative (NBI) and the Joint Education Trust (JET), revealed a willingness to learn, positive attitude, good workplace discipline, and good theoretical skills on the part of the NCV artisan candidates. However, overall interns were ranked less highly on technical skills. Some of the findings in the selection and placement results were linked to the quality of provision at different colleges.

The report did not reflect the quality of interns and their state of readiness to attempt the trade test after workplace experience. After the selection process of the interns, some companies in the pilot put the learners through the RPL process and thereafter put them through the merSETA's Accelerated Artisan Training Project (AATP). Other companies put the selected interns through to the traditional apprenticeship programme.

2.5.5. Government and enterprise role in artisan development

During the apartheid era, building the white Afrikaner base was central to the government and led to the decision to build the Central Organisation for Trade Testing (COTT) in 1944. The commitment of the apartheid government to develop whites is reflected in Table 3 below. Until 1977 there were no blacks registered as apprentices in South Africa. The apartheid government very strongly supported the development of white artisans: there were interventions in the form of incentives for apprentices, supporting training centres and the commitment of State Owned Enterprises (SOEs) for workplace experience. SOEs were the main suppliers of artisans until the mid-1980s when the state started to privatise training centres. Entire public companies like ISCOR were privatised, after which the training of artisans started to decline drastically in South Africa (Mukora, 2008).

Table 3. Apprentices registered: 1997-1981

Apprentices	1977			1980				1981			
	W	C	A	W	C	A	B	W	C	A	B
Totals	10,066	871	323	8,568	1,406	471	82	9,232	1,595	645	495

W=White; C=Coloured; A=Asian; B=Black

Source: Bird, A. (2001)

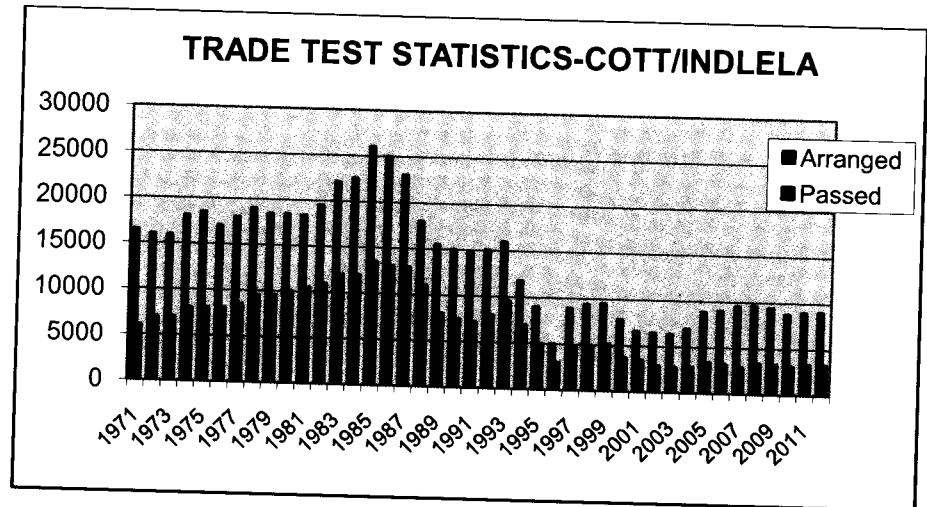
Over the years, the private sector largely depended on SOEs for the development of artisans. The private sector contributes to the decline of artisan development in that its decisions were based on the short-term rather than the long-term. Secondly, employers in South Africa are cost sensitive and, as a result, training and development fluctuated with a company's economic performance. Companies in South Africa reduced training of artisans when the economy or company performance is low. This trend continues till today.

The decline was compounded after 2000 with the introduction of the SDA when companies were not sure about institutional arrangements contained in the introduction of learnerships parallel to the apprenticeships (Mukora, 2008).

Figure 6 below, shows the trade test statistics for artisan candidates that were trade tested at INDLELA. While this figure does not show the accurate statistics of artisan's trade tested in South Africa, it does provide a good reflection of the status quo

in that INDLELA itself assesses more than 60% of candidates that are being assessed in South Africa. The figures show that there were just less than 4000 artisan candidates qualifying at INDLELA per year from 1995 until 2012.

Figure 6. INDLELA trade test statistics



Source: INDLELA, (2013)

There have been recent initiatives from government to standardise and control the development of artisans in South Africa. The National Artisan Moderation Body (NAMB) is a newly-established institution that will be responsible for the coordination of artisans in the Republic of South Africa by ensuring that there is a single, common national system for all artisan development as prescribed in section 26A (1) (a) of the Skills Development Act 97 of 1998, in the Department of Higher Education and Training.

Some of the legislated responsibilities of NAMB as reflected in section 26(D) of the Skills Development Act (as amended) are to:

- Monitor performance of accredited trade test centres
- Moderate artisan trade tests
- Develop and maintain a national databank of assessment and moderation tools
- Maintain a database of registered assessors and moderators
- Record artisan achievements
- Determine assessment appeals
- Recommend certification of artisans to the QCTO.

There wasn't much to investigate in terms of the successes and failures of NAMB because no new trade test assessments have been developed through the Quality Council for Trades and

Occupations (QCTO) for which NAMB is responsible. Currently NAMB has finalised the trade test policy and workplace approval policy.

2.6. Comparison of artisan development

The table below presents the comparison of artisan development phases and structures in the different countries from which literature was sourced.

	Germany	Australia	United Kingdom	South Africa
Principal National statute	Vocational Training Act of 1969	Each state has its own policy for apprenticeship training	Industrial Training Act of 1964	Manpower Training Act of 1981 Skills Development Act of 1998
Responsible Ministry	Education (BMBF)	Department of Education and training	Education and Employment	DHET
National organisation for	Chambers	Office of Training and Further Education;		SETAs, SAQA, QCTO, NAMB
a) administration		Australian National Training Authority		
Mandatory representation:				
Employers	Yes	Yes	Yes	Yes
Trade Unions	Yes	Yes	No	Yes
Vocational Teachers	Yes	Yes	No	Yes
Skill level	Craft	Artisan	Craft	Artisan
Duration of training	2-4 years	2-4 years	Unspecified	2-4 years
Regulation of work based	BIBB sectoral	TAFE	NTOs; TECs	Chambers

	Germany	Australia	United Kingdom	South Africa
Training	committees; Chambers			
Funding for:				
Institutional cost	Federal government	State	Learner	Employer, apprentice
Workplace Training Cost	Employer	Employer	Employer	Employer
Apprentices terms:	Employee			
Contractual	Trainee	Trainee	Employee	
Determination of wages	Collective agreements (sector)	Not specified	Partial and variable	Bargaining council sector
Accreditation and Quality assurance	Board of examiners established by the Chambers	TAFE	National Vocational Qualification (UK)	ETQA's, Assessment quality Partners (AQP),
Certification	Chambers of industry and trades	Australian Qualifications Authority (AQA)	National Council for Vocational Qualifications (UK)	SETA's, SAQA, QCTO.
Institutional Learning	Vocational institutions	College Providers	College providers	FET Colleges, Private providers
Workplace learning	Enterprise employer	Enterprise employer	Enterprise employer	Enterprise employer

From the literature of different countries and the comparison table above, it can be concluded that there are numerous overlaps in institutional arrangements for artisan development in the four countries. The UK system is the least formal in their institutional arrangements. South Africa's institutional arrangements are the most complicated considering that there are four routes that can be followed

in the development of artisans and the history of artisan training in South Africa

2.7. Conclusion

The literature study has focused on artisan development mainly through the apprenticeship approach. The South African study focus on apprenticeship from the apartheid era and the transformation of artisan training into the new era (Mukora, 2008). Challenges as a result of the transition from the old apprenticeship programmes were identified and the decline in the development of artisans was also investigated.

The privatisation of the state owned enterprises and the discontinuation of training through the SOEs were investigated. Further investigation was done on the contribution of costs to the decline in artisan development. The study also looked at artisan identity and status in South Africa and how these affect the development of artisans. The study concludes by comparing institutional arrangements for artisan development in the four countries selected for the investigation. .

The literature review has revealed that institutional training and workplace experience are important components of artisan development (Gamble, 2000). The literature review in all the selected countries has shown that there are successes and challenges related to institutional arrangements for artisan development.

It is against this background that my own study will enter debates related to institutional arrangements for artisan development in the manufacturing sector in South Africa. The concepts 'getting in' and 'getting through', discussed above, will be explored further. The content of the literature and its evaluation was used by the researcher to frame the primary question and secondary questions in the gathering of data.

My proposition as outlined in the review of the four selected countries is that 'well coordinated institutional arrangements contribute towards the effective development of artisans'. The context of institutional arrangements, partnerships and collaboration in this study is further outlined in the next chapter that deals with the theoretical framework.

CHAPTER 3

THEORETICAL FRAMEWORK

3.1. Introduction

The purpose of this chapter is to present the theories that support institutional arrangements. The key focus of the research study is the arrangements of different institutions that are involved in artisan development. Since artisan development happens within different institutions some of which provide off-the job-training, others on-the-job training, others the administrative support and funding, and others, testing and certification facilities, the researcher chose to discuss the theories of collaboration and institutionalism. There is also the involvement of government working with these institutions to provide policy directives and the researcher chose the theory of governance to explore the effectiveness of government involvement. The data collected will be presented and analysed in relation to the theories in this chapter. The analysis will be done as a response to the primary question 'What institutional arrangements exist for effective development of artisans in the manufacturing sector?'

The researcher chose to examine different theories which underpin collaboration, governance and institutionalism which will be discussed in sections 3.2, 3.3 and 3.4 respectively. The reason for choosing more than one theory was to get a broader view and understanding of institutional arrangements in the development of artisans with special reference to 'getting in' and 'getting through' as explained in chapter 1 and chapter 2. The scope of the theories in this chapter, together with the literature review and conceptual framework will be used as a benchmark to analyse the data collected through different instruments.

3.2. Collaboration Theory

In this study, the researcher will apply Wanna's definition of collaboration as 'joint working or working in conjunction with others' (Wanna, 2008:3). The focus is on the way in which the institutions involved in the development of artisans within the manufacturing sector work jointly or work in conjunction with one another. The institutions include both those that are private and those that belong to the government, that is, public institutions.

The section on collaboration also looks at the circumstances under which institutions collaborate. It considers the checks and balances that ought to be in place when and how institutions collaborate (Fels, 2008). Fels argues that where there are elements of collaboration between government and community, the areas of collaboration

should be determined on the basis of real connections. When institutions collaborate it should be clear to all the parties with whom they collaborate as to why they wish to engage in a particular form of collaboration. This is the underlying principle to be applied in determining the institutional arrangements for artisan development within the manufacturing sector.

3.2.1. Collaboration prospects and challenges

The researcher has realised through experience that when one is involved in a dialogue with institutions and one mentions the need for collaboration, members representing institutions start to show signs of agreement even before they listen to one's outline of possible areas of collaboration. According to Wanna (2008), people tend to see the positive spin and are easily attracted to collaboration and they mostly believe that collaboration creates benefits with positive outcomes (Wanna, 2008). The institutional arrangements for artisan development within the manufacturing sector will be analysed on this basis.

Institutional arrangements can also have challenges in recognising when and with whom an institution should collaborate and it is important to have reasons for collaboration, just as it is equally important to put the reasons for collaboration into practice (Wanna, 2008). These notions were used to determine the reasons for institutional arrangements and how they were to be implemented. A clear focus is required both on what motivates the participants in these arrangements and the desired outcomes or the end product.

According to Wanna (2008), collaboration should be about cooperation in building consistency and alignment with the participants' activities. It should also be about participants being willing to compromise and make trade-offs where required. Collaboration cannot be about what one party gets without giving anything in return. The participants in the development of artisans are equally responsible for the end products which, in this case, are quality qualified artisans ready for the world of work.

If collaboration is not properly managed, it can involve power and coercion in which one participant in the development of artisans imposes its preferences, which can sometimes lead to

policy failures because of a lack of stakeholder community consultation.

Collaboration can be both constructive and destructive depending on the way in which it is initiated and implemented. When the rationale for the initiation and implementation of collaboration is well-thought through, it can achieve the government's call for artisan development.

Well-thought through collaboration can offer new opportunities through the implementation of new strategies (Wanna, 2008).

Collaboration for the wrong reasons can result in ineffective buy-in into institutional arrangements and if that collaboration relates to policy, the policy is subject to poor implementation. The policies on artisan development can be met with resistance if the intentions are not correctly shared with the participants such as FET Colleges, employers, SETAs and any others involved in their implementation.

When collaboration works well, it inspires and the participants feel the collaborative energy. According to Huxham and Vangen (2008), collaboration can have two outcomes. On the one hand, it leads to the achievement of something that could not have been achieved by one organisation working alone. On the other, it can be negative when the process to achieve the outcome is just slow and causes pain for the other party. This study looks at the current collaborative advantages and collaborative inertia in the development of artisans within the manufacturing sector.

'Common wisdom suggests that it is necessary to be clear about the aims of joint working if partners are to work together to operationalise policies' (Huxham & Vangen 2008:29). It is required of institutions involved in the development of artisans to be clear about their aims of working in conjunction with one another.

This research study also focuses on the concept of collaborative advantage with regards to the current arrangements of artisan development. In their collaboration theory, Huxham and Vangen (2008) present six perspectives of collaboration that need to be effectively managed for collaborative advantage. These are listed and discussed below:

Having common aims but not agreeing to them.

This view argues that institutions or parties need to agree on the aims for which they need to collaborate. Most organisations do share common aims but tend to have difficulty in reaching agreements towards common goals. It is common knowledge that government, SETAs, FET College institutions have common aims without proper agreements on how to reach their aims.

Colleges and industry all share the aim of developing artisans. It is against this shared aim that the partnerships in artisan development will be analysed in chapter five. If artisan development partners are to work jointly, they need to be clear on the aims of artisan development and have concrete and measurable agreements. Table 4 below, shows the framework within which institutions will collaborate for a common goal or aim. The table outlines clearly that collaboration aims should be clear and explicit to the parties. The aim of collaboration should not be assumed or hidden. Both the organisational aims and individual aims should be well understood by all the parties who collaborate.

Table 4- A framework for understanding aims in collaboration

(one participant's perspective)	Explicit	Assumed	Hidden
Collaboration Aims	The purpose of the collaboration		By definition, these are perceptions of joints aims and so cannot be hidden
Organising Aims	What each organisation hopes to gain for itself via the collaboration		
Individual Aims	What each individual hopes to gain for him/herself via the collaboration		

Source: Huxham & Vangen, (2008)

Sharing power where the other party believes that it's all in the purse strings.

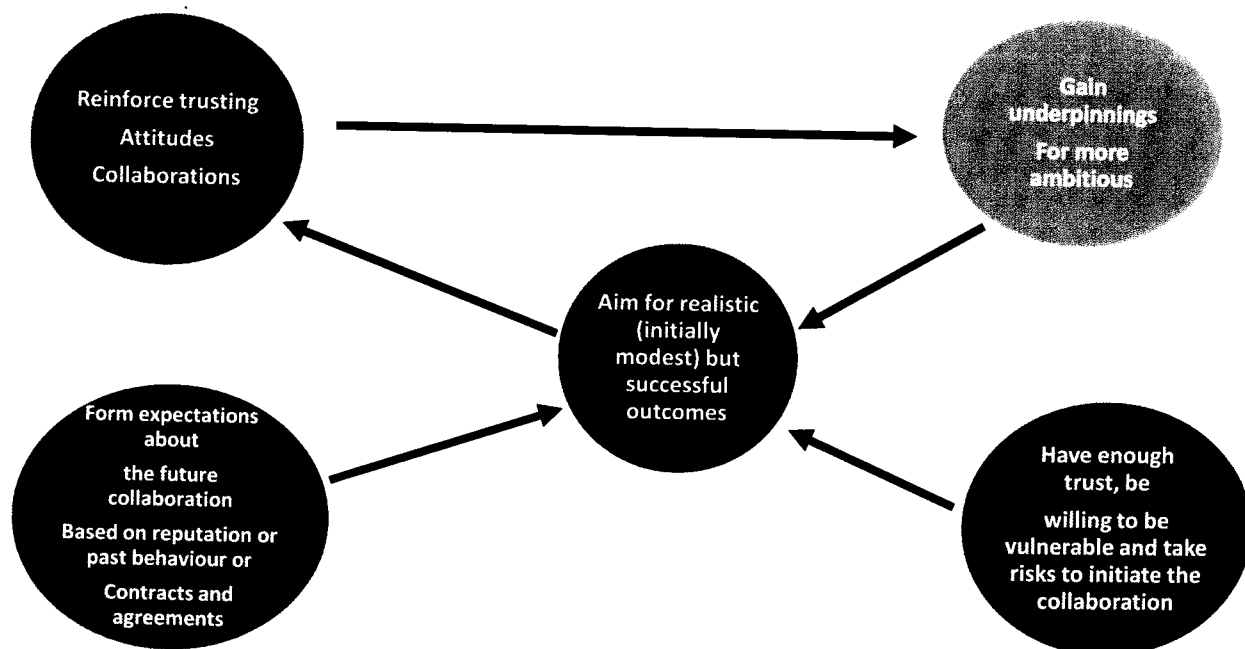
In this situation, Huxham and Vangen are of the view that collaboration fails because the other party believes that they have more power because they have the strength of financial resources. There are circumstances in which those who have

the power of funds, will choose who will be involved or can join the collaboration efforts. Huxham and Vangen use common wisdom to describe this arrangement in which they say 'the power is in the purse strings' (Huxham & Vangen, 2008:32). Checks and balances are therefore necessary to govern the current arrangements for artisan development in terms of the influence of those who have the funding power. Part of the responsibilities of the parties who want to collaborate is to have mechanisms to manage any abuse of power.

Importance of trust in collaboration versus suspicion of each other.

Huxham and Vangen argue that trust is a prerequisite for any form of collaboration to be successful. Ideally it would be a good thing for partners who want to collaborate to trust each other but one would mostly find that suspicions of each other are always there at the beginning of each collaboration process. Figure 7 below shows how the parties can build a trust relationship loop. Central to collaboration is clear and realistic aims by the partners.

Figure 7. The Trust-building loop



Source: Huxham & Vangen, (2008)

Partnership-fatigue and being pulled in all directions.

Sometimes there are challenges in determining who the actual collaborators are in cases where delegated participants to the collaboration process come and go at different phases. The other party will be left with new people without the background to the initial collaboration process. Sometimes it is about collaborators who will inject funds into the process without actively participating in the process itself. This leaves the other participants not knowing who they can deal with and they begin to feel that they are being pushed from pillar to post.

In order to manage ambiguity and complexity in collaboration, managers need to have a clear agreement on the ` aims build trust and manage power relationships. This form of arrangement will be analysed with regard to institutional arrangements to develop artisans within the manufacturing sector in terms of 'getting in' and 'getting through' artisan candidates.

Everything keeps changing.

This is about policies being developed internally but having to be implemented externally. This dimension measures whether government policies are developed with the external participant's consultation. Government policies on skills development are being implemented through partners and the frequency with which some of the policies or processes are changed may affect collaboration partnerships.

The changes can also be within the institutions wherein an internal policy change warrants the adjustment of the collaboration process or wherein systems and programmes are changed in the middle of a collaboration process. Analysis of the current institutional arrangements will be with regard to the stability of the funding policies, curricula at FET Colleges, quality assurance and support policies.

Leadership not supporting implementing members of the collaboration.

The outcomes of any collaboration, largely depends on the support of leadership. The leadership of the artisan development process should steer and provide advice on the implementation of the collaboration process. The top

structures in organisations are equally important in the collaboration process as are the implementing members. Leadership should put resources into the collaboration.

3.2.2. Successes and failures in collaboration

The successes and failures in collaboration stem from the way the problems are defined and also in defining what needs to be done (Carmody, 2008).

Collaborators often spend less time on defining the problem before proceeding quickly to what should be done about the problem. A wrongly defined problem will lead to incorrect or inappropriate solutions to the problem. Understanding the problem around artisan development is crucial and requires an understanding by all the participants. For example, there may be a general and blanket statement saying that South Africa has a shortage of artisans and that partners need to collaborate and develop artisans. The question that needs to be investigated by all partners is, 'what kind of institutional collaborations are required to increase artisan development?'

Carmody, (2008) emphasises the importance of strategic leadership in identifying the best participants to respond to a crisis. Identification of participants for the sake of having representatives to address collaboration matters will result in the failure of the collaboration process. Institutional arrangements in the development of artisans within the manufacturing sector have been evaluated in terms of those who are party to collaborations and their relevance to the collaboration. Carmody says 'We should then identify the most efficient arrangements to establish effective command and control and to make it happen in reality' (Carmody, 2008:64). Participants taking charge of 'getting in' 'getting through' and 'getting on' artisan candidates to become competent and qualified artisans should have these arrangements. Carmody (2008) summarised the practical activities to make the collaboration a success and these are listed below:

- early action, meetings or planning interventions;
- well-established initial communications protocols;
- a clear perspective and a clear identification of the aim;
- well-established, documented and rehearsed process;
- clear accountabilities for those brought into the collaborative venture;

- a commitment to resource sharing across agencies and to special initiatives ;
- a willingness by agencies to contribute staff;
- promoting and developing a feeling of 'we are all in it together';
- Having only contributors present - no passengers;
- Individual agendas need to be sacrificed for the common agenda;
- Thinking about the 'end' at the 'beginning' and planning for it: repatriation, disengagement and a return to the pre-crisis status quo;
- Understanding and invoking institutional arrangements for artisan development within the manufacturing sector can result in better outcomes. Identification of key organisational players, who will always be available when there is a crisis in collaboration, is important.

3.2.3. Reality and rhetorical elements in collaboration

Some elements of collaboration are a reality whereas some are just rhetoric. There are different perspectives by different scholars regarding collaboration. When collaboration is talked about, it mostly appears to be a good idea that could make things happens. Most scholars seem to see collaboration as an ideal transformative agenda to make partnerships a success. This section discusses what can go wrong with collaboration and how collaboration can be made to work to the advantage of the participating institutions.

The reality in collaboration is the fact that it can be very difficult to implement despite the rhetoric supporting it (Huxham & Vangen, 2000). On the other hand, the Cortada et al. (2008) study (as cited in O'Flynn, 2008) shows that proper collaboration can ensure that there is a smooth service and economic response. Contrary to the views by Cortada et al (2008) as cited in O'Flynn, Bryson et al, 2006 (also cited in O'Flynn 2008) is of the view that the call for collaboration has reached a fever pitch in which it is seen as the way to go in many circles of the world as the alternative way where things have gone wrong or as a way of doing everything without checking the end results that the institutions seeks to achieve.

According to Huxham et al 2000 study (as cited in O'Flynn 2008), 'Collaboration is not a panacea for tackling all organisational activities. Most of what organisations strive to

achieve is, and should be done alone' (O'Flynn, 2008: 183). Despite this observation, collaboration theory is still intensifying.

O'Flynn noted that there is a current trend of accepting that all forms of working together are collaboration. There are however, important distinctions to make - the most important being that working together does not equal collaboration (O'Flynn, 2008) and the extent to which the activities of working together by partners in artisan development equates to collaboration will be analysed in this study.

3.3. Governance Theory

The second theoretical approach applicable to my research is governance theory: Governance can be used in different ways and has different meanings. There are at least four definitions of governance introduced in this study, all of which can be relevant depending on the context and research field of the researcher. The relevance of the definition is informed by the emphasis and context of the researcher.

Mkhandawire (2007) defines governance as 'the exercise of power to manage the nation's affairs' (Mkhandawire, 2007:680). Olowu (2002) defines governance as 'the formation of stewardship of the formal and informal rules that regulate the public realm, the arena in which state as well as economic social actors interact to make decisions' (Olowu, & Sako, 2002:360). Hyden (1992) defines governance as 'the conscious management of regime structures with a view to enhancing the legitimacy of the public realm' (Hyden, 1992:3).

Mkhandawire's definition of governance suggests that there is no sharing of ideas or consultation in the process of managing the nation's affairs. The definition appears to be politically driven. Olowu's definition introduces more strongly an element of actors coming together and agreeing on certain rules to guide the decision-making process. Hyden's definition does not show how actors partner in making decisions. Governance emanates from government and in its simplest meaning is about the governing approach whether by the central government authority or by the state institutions responsible for implementing policy. This research study focuses mostly on institutional arrangements for artisan development within the manufacturing sector at implementation level - from artisan intake until the certification. Artisan development is informed by certain policies and it must be noted that this study does not focus on policy formulation but on policy implementation.

Based on the above-stated focus, the governance definition adopted for this study is that of Olowu because the researcher is interested in acquiring an understanding of the ways in which formal and informal rules affect the development of artisans positively. The researcher would also like to analyse in greater depth how the state and social actors develop and document their interaction to make decisions for a common goal or aim. Furthermore, the researcher is interested in analysing the extent to which the goals in artisan development are defined before implementation of the rules.

Olowu's definition of governance adopted for this study will be used to develop an understanding of the key concept of arrangements in the research questions. This will be done by obtaining an understanding of the formal and informal rules between state and economic actors and their interaction around policies and guidelines.

According to Stoker (1998), there are five governance proposition theories that best outline how institutions should create the conditions for ordered rule and collective action. Stoker's governance theory propositions that support Olowu's governance definition are discussed below:

Governance as a complex set of institutions and actors that are drawn from but also beyond government.

This proposition suggests that there are different institutions that require consultation in decision-making or in ensuring that the common goal is achieved. Different structures of government and those outside government should be part of the partnerships whenever they have a vested interest. Stoker (1998) argues that the 'governance perspective should also draw attention to the need for increased involvement of the private and voluntary sectors in service delivery and strategic decision-making' (Stoker, 1998: 19).

Responsibilities should not be government-centred but different institutions with an interest in artisan development should be involved in partnerships with government institutions. This principle will be analysed against the literature and data collected with regard to artisan development in chapter five of this study.

Delivery of some services within the public sector requires the contracting of the public-private partnerships. As argued by Stoker (1998), the government should not be a stand-alone institution that divorces itself from the other forces in the society.

Governance recognizing the blurring of boundaries and responsibilities for tackling social and economic issues.

This proposition puts the emphasis on institutions to remove barriers in their partnerships to resolving social and economic matters. Institutions and government cannot keep blaming each other but should rather remove the differences that make it difficult for them to work as a team. This proposition will be used in analysing the relationship between the government as broadly seen as one of the institutions and the other institutions that are involved in the development of artisans.

Governance identifies the power dependencies in the relationships between institutions involved in collective action. In this proposition, Stoker defines power dependence as organisations committed to collective action in which they are also dependent on other organisations. Exchange of resources and determination of common purpose for a common goal is the important factor in sharing power (Stoker, 1998).

This proposition also suggests that in a partnership one organisation can be more dominant than the other but its dominance should not be misused in the partnership.

Governance is about autonomous self-governing networks of actors.

Governance requires management but it should be understood that institutions that are in partnerships still have their own power with regard to their internal affairs and how their interests in the partnership can be achieved. There is no institution which can be fully dependent on the other institution without losing its independence. The regimes or institutions should be a response to challenges of governing without government or without the dominant partner (Mayer et al., 1995).

Governance recognises that the capacity to get things done does not rest on the power of government to command or use its authority. It sees government as a source of tools and techniques to steer and guide.

The key tasks of government in relation to governance is '...composition and coordination; calibration and steering; integration and regulation' (Kooiman, 1993:66).

This is a process in which key stakeholders who will have an influence in a linkage are brought in as partners. Key partners and their nominated personnel should have decision-making powers in the

linkage or partnership. Secondly, the participants in a partnership should be able to steer and influence the relationship and, lastly, it is about participants who can be innovative by thinking and acting beyond what may be normal and can act to avoid unwanted side effects.

The other form of governance theory is through public-private partnerships (PPPs). Artisan development happens within the public and private institutions and requires cooperation of these institutions. The theory on PPPs becomes important for this study in order to understand what are the advantages and disadvantages of PPPs. Hodge and Greve (2007) view PPPs as a governance tool applicable across all government spheres and departments. There are two important dimensions relevant for PPPs. The first dimension relates to financial arrangements and the second dimension relates to organisational linkages between the actors (Hodge & Greve, 2000).

Van Ham and Koppenjan (2001:598), define PPP as 'co-operation of some sort of durability between public and private actors in which they jointly develop products and services and share risks, costs and resources which are connected with these products'. Durable cooperation and the preparedness to share risks are key in this definition of PPP.

In view of this definition, institutional arrangements for artisan development in the manufacturing sector will be analysed to see the preparedness of institutions to share risks and contribute in the funding of artisan development. PPPs should not only be about private finance initiatives.

According to Linder (1999) government should not be involved in PPPs as a form of contracting out its responsibility to the private sector and speak about such arrangements as partnerships. Governments sometimes develop policies that involve privatisation and use the term partnerships in their policies (Hodge and Greve, 2008).

PPPs should be evaluated based on their policy objectives versus the deliverables of the institutions. The biggest measure of PPP should be better value for money. Projects undertaken through PPPs should be evaluated against the set time frames and the quality of the outcomes.

The development of artisans through PPPs should produce results that are commensurate to the financial investment made by public and private institutions. Comparison of projects undertaken by government as opposed to projects undertaken through PPPs has shown that

projects undertaken through PPPs were mostly on time and within budget. Governance through PPPs has always a promise of improving business confidence and accountability. This is where the importance of PPPs is being realised for different government projects (Hodge & Greve, 2008).

Depending on the process and intentions of PPPs, they can be subjected to manipulation where only a few partners get enriched at the expense of the public majority. PPPs become expensive for the government in that most private partners want to benefit from taking the risk of a particular project transferred. According to Hodge's (2005) study (as cited in Hodge & Greve, 2008) the weak governance arrangements of PPP contracts contribute significantly to the failure of partnerships. The benefits of PPPs in government initiatives are uncertain and thus require that the government should be mindful when developing the PPP contracts.

3.4. Institutional Theory

Institutional theory is about the formal and legal aspects of government structures. It is based on institutional rules to achieve a common goal. According to institutional theory, public and private institutions should have powers in decision-making processes where the rules and procedures for the implementation of policies are developed (Furlong, 2004). Institutional theory in this study will be used to analyse how the different partners in the development of artisans influence the implementation of artisan development policies. Artisan development policies may include both those that are steering the FET College system and the SETA system.

Institutional theory will further assist in determining whether institutions involved in the development of artisans have any legal power to influence any decision-making process. There should be a mutual determination between institutions and policy, but this can sometimes be manipulated where there are power agendas. The manner in which the rules and procedures of institutions are arranged, determines the policy outcomes (Furlong, 2004). Linked to institutional theory as discussed above, will be the two sub-theories of historical institutional theory and sociological institutionalism as discussed below.

3.4.1. Historical institutional theory

This theory acknowledges there can be conflicts between institutions. The conflict can arise from arrangements or from

different policies that regulate the institutions. With regards to this theory, I will be analysing the relationship between all the institutions that have an interest in artisan development to check if there are any conflicts. This theory also views the institutional organisations of the polity and political economy as being the key factors that lead to collective behaviour which in turn realises common outcomes (Hall & Taylor, 1996).

3.4.2. Sociological institutionalism

This school of thought argues that sometimes institutions do not always adopt new practices with an intention of advancing efficiency but simply because they are broadly valued within the cultural environment (Hall & Taylor, 1996). The relevance of arrangements will be analysed with an intention of checking whether some policies in these arrangements were for the common good or were developed with the intention of seeking popularity.

3.5. Conclusion

Collaboration theory, governance theory and institutional theory were presented and discussed in detail in this chapter. The collaboration prospects and challenges were outlined to determine areas for consideration in a collaborative agreement that will work and areas to consider in a collaboration agreement that will fail. Precautionary measures to ensure that collaboration becomes a success will also be considered.

Successes and failures in collaboration were discussed to determine what causes the success and the failure of collaboration efforts. The importance of defining the problem was emphasised and some practical steps to make collaboration a success were considered. An Australian case study has shown that the partners who collaborate must have the clear purpose and should share their vision. The aspect of continuous changes made often within institutions has been presented as a contributing factor to failed collaboration efforts. A comparative perspective of what has worked around the world was also outlined.

The last and critical element discussed under collaboration was that of rhetoric and real collaboration. In this section, it was made clear that working together does not equate collaboration.

The discussion on governance theory covered the way in which the rules can affect the outcomes of the agreement and the institutional

theory discussion covered the role that should be played by institutions in the implementation of the policy.

These theories have provided the basis against which the researcher will analyse institutional arrangements for artisan development in the manufacturing sector. In analysing and presenting data, the three main theories above will be used as a benchmark in determining what works and what is prone to failure in the development of artisans' institutional arrangements in the manufacturing sector.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1. Introduction

The overall objective of this research study as stated in Chapter 1 was to explore the range of institutional arrangements for artisan development in the manufacturing sector. The sub-objectives of this study were to:

- determine best practices to make a meaningful contribution to ensure that artisan development is maximised in the manufacturing sector.
- to further remedy the knowledge gap that exists in institutional arrangements in relation to artisan development in the manufacturing sector.

The arrangements in respect of linkages, partnerships and networks were explored to improve on the challenges related to 'getting in' and 'getting through' artisan candidates. The study also provided an insight on how institutional arrangements can be a barrier or an enabler for the development of artisans. The research design and methodology in this chapter outlines the process followed in ensuring that the information generated and gathered was accurate and would assist in making accurate recommendations or decisions upon analysis (Zikmund, 2003).

Although artisan development has shown some steady increases over the past few years, meeting the targets as set out in the merSETA strategy and the New Growth Path as documented in Chapter 1 still remain a challenge. The challenge is more significant in that meeting the targets should not only be about the numbers but should be coupled with quality. The cadre of newly-qualified artisans should be ready for the world of work upon completion of their trade test and that was a key challenge reported on in this chapter.

Secondly, there can be challenges with our national artisan development project where there is no institutional alignment between theory and practice. Theory in this case refers to what is learnt at the college and practice refers to what is learnt at the workplace (Fuller & Unwin, 1998). The two worlds of theory and training were further investigated to compare the level of inter-linkages

According to Swanepoel and Erasmus (2000), the researcher's choice of research design and methodology used in a study is determined by

the purpose, the research problem and the research questions of the study. The main research question to be answered in this study was 'What institutional arrangements exist for the effective development of artisans in the manufacturing sector?' There were two categories of research questions designed for this study. Both categories aimed at investigating the collaborative, institutional and governance arrangements for artisan development in the manufacturing sector.

The questions sought to investigate the current best practices and challenges with regard to 'getting in' and 'getting through' artisan candidates through a specific artisan development route as stated in Chapter 2 of the literature review on artisan development in South Africa. The first set of questions was designed for the face-to-face interviews and the second set of questions was developed to guide the focus group discussion.

4.2. Research approach

This research study mainly used a qualitative approach which allows for a more flexible process in conducting the research. According to Mirriam (1998), flexible processes allow the researcher not to follow any set of procedures and rigid steps in data collection and analysis. The procedures followed by the researcher were as per those outlined by Mirriam (1998) above. The researcher was able to adapt to certain unforeseen circumstance when conducting the research. This approach assisted the researcher when he encountered unforeseen situations and responses during the process of data collection. The qualitative research also allowed the researcher to obtain first-hand information; this means that the participants gave the researcher direct information on the matter related to institutional arrangements for artisan development in the manufacturing sector. The focus of this study was on a specific population group with the intention of listening to the voices of the participants. The theoretical framework has indicated that some new theoretical areas relating to institutionalism, collaboration and governance would need to be explored in institutional arrangements and these areas were used as a benchmark for the kind of data to be collected through the set of data collection interview questions.

Qualitative research was relevant for the researcher in this study for the following reasons. Firstly, there is provision for the use of inductive data analysis and reasoning (Maree & van der Westhuisen, 2007). Secondly, there is a provision for context-heavy and rich data from real people life situations (Golafshani, 2003). Thirdly, the qualitative enquiry allowed the researcher to have a more and direct involvement

in the subject under investigation (Patton, 2002; Huberman & Miles, 2002). Fourthly, the qualitative research allowed the researcher to use available methods and strategies to collect data (Denzin & Lincoln, 1998). Lastly, the qualitative research design is flexible and can be adjusted as and when needed (Mirriam, 1998).

The study in itself used descriptive research which is an inquiry into a primary focus, which inquiry will paint a picture of the situation and enable the researcher to answer questions on who and what. The main interview question and secondary questions in this study primarily start with 'who' and 'what' and the researcher used the recorded and written information to elaborate on the interviews that were conducted. The rationale for using the descriptive research was based on its rich data that is both detailed and highly accurate, with the provision of the background as well as the context of the situation (Neuman, 2011:34).

When conducting the interviews the researcher always provided his background on the topic being researched and also asked the interviewees to provide their background before getting on with the interviews.

4.3. Research design and methodology

Research design is described as 'the plan and structure of investigation so as to obtain answers to research questions' (Donald & Schindler, 2008:140). This chapter serves as a blueprint or operational plan that details how the research approach was employed and further describes the research design containing the scope of the research, population sampling, data collection, data analysis as well as the validity and reliability of data during the process of conducting this research study.

This study was based on descriptive qualitative research, that is, the focus was on the context within which institutions 'get in', 'get through' and 'get on' artisan candidates through different arrangements. The researcher's focus was on institutions in the manufacturing sector and less on individuals in those institutions. The researcher's aim was to get the interviewees to provide the perspectives of their institutions regarding this study.

In addition to the use of the theoretical framework above, the descriptive qualitative research design further assisted the researcher to gain a better understanding of how the social context of institutional arrangements can be improved (Dayel, 2011). The context was important for the researcher in this study because the arrangements

within institutions vary with time or will be based on the historical era within which they existed or obtained.

4.3.1. Research population

The research population in this study was confined to four key stakeholders that are critical in artisan development in the manufacturing sector. The first key stakeholder group was made up of representatives from the industry represented at federation and at company level. These are stakeholders who are mainly responsible for the workplace learning of artisan candidates in all the four routes of apprenticeships, learnerships, internships and RPL. The second key stakeholder was a management level merSETA employee. The representative has direct linkages with the FET College, industry and DHET partners. The third stakeholder was the DHET, with the respondent being from senior management and who has an influence on artisan development policy formulation and implementation. The last stakeholder group comprised FET College respondents representing senior and middle management and junior lecturers. The FET College representatives are responsible for the provision of FET College programmes that prepare the artisans candidates for entry into different artisan routes.

4.3.2. Research Sample

According to Maylor and Blackman (2005) as cited in Khan (2011), units in the sample population are known as a sampling frame and according to Cooper (as cited in Khan, 2011), 'the listing of all population elements from which the sample will be drawn is the sampling frame' (Khan, 2011:40). Zikmund (2003) describes sampling as 'any procedure that uses a small number of items or a portion of a population to make a conclusion regarding the whole population' (Zikmund, 2003:70). Maylor and Blackman (2005:195) notes that the sample is the subset that is representative of the population of the study.

The two types of sampling that are most common are probability sampling and non-probability sampling.

The assembling of the participants in this research study was informed by their background, relevance and interest in the topic under investigation (Neuman, 2011:220). In this research study the relevance and interest was informed by

the involvement of participants in the development of artisans in the manufacturing sector. The other critical element for the selection of participants was their involvement or influence in either 'getting in' 'getting through' and 'getting on' artisan candidate through any of the artisan development routes.

Taking into account the interest of the researcher as stated above, the researcher chose purposive sampling for both the interviews with individual participants and the focus group participants. Purposive sampling is defined, according to Neuwman (2011), as a non-random sample to determine a possible case that is highly specific. According to Creswel (2012), the popular element in sampling is to choose the right people that will best suit one's research approach and methodology. Purposive sampling is relevant in that the population selected will have the necessary background and knowledge of the topic under investigation. Twelve interviews were conducted using purposive sampling for the selection of respondents and one focus group discussion was conducted, also based on the relevance of institutions and the participants to the topic. The researcher chose the following institutions and their participants because of their involvement and role in the development of artisans in the manufacturing sector. The section below outlines the relevance of the institutions and the participants representing the population sample of the institutions for both the face-to-face interviews and the focus group discussion.

The first key institution in the development of artisans is the DHET directorate called the National Artisan Moderation Body (NAMB). NAMB is a newly-established institution responsible for the coordination of artisans in South Africa by ensuring that there is a single common national system for all artisan development as prescribed in section 26A (1) (a) of the Skills Development Act 97 of 1998. Some of its legislated roles as reflected in section 26 (D) of the Skills Development Act are to:

- Monitor performance of accredited trade test centres;
- Moderate artisan trade tests;
- Develop and maintain a national databank of assessment and moderation tools
- Develop database of registered assessors and moderators
- Record artisan achievements

- Determine assessment appeals
- Recommend certification of artisans to the QCTO

NAMB also serves as an institution responsible for setting up the artisan development policies. Two critical policies in which NAMB plays an important role are the regulation for the listing of trades and trade test regulation. These regulations emanate from SDA No 97 of 1998, as well as the Manpower Training Act of 1981 which regulate the apprenticeship and RPL routes. DHET is also responsible for the Skills Development Levies Act of 1999 which regulates the disbursement of funds to the SETAs, and the NCV policy which regulates the NCV learning programmes from level 2-4 as well as the NATED programmes. The participant sampled from the NAMB is a senior manager within the department, who has knowledge of the policies that regulate artisan development; the functioning of SETAs and is also knowledgeable on the DHET disbursement of funds.

The second stakeholder participant was sampled from the merSETA. The merSETA is one of the twenty one sector education and training authorities responsible for the facilitation of skills development in terms of the SDA. The merSETA is also the key SETA which has a strong focus on artisan development. The merSETA has the responsibility to facilitate the disbursement of grants to companies that participate in skills development interventions such as Professional, Vocational, Technical and Academic Learning (PIVOTAL), apprenticeships, learnerships, internships or skills programmes as stipulated in the SDA. The administration of the learning programmes from registration until application for certification is also done by the merSETA. Criteria and guidelines for DTTCs and the accreditation requirements for private providers are developed by the merSETA as per the South African Qualifications Authority (SAQA) ETQA regulations No. 1127 of 8 September 1998. The merSETA also funds the learnerships and apprenticeship programmes in the form of mandatory grants and discretionary grants.

The participant from the merSETA was sampled in that he is the senior manager in the unit responsible for programme implementation and discretionary grants. He interacts with artisan development partners through different memoranda of agreement.

The third stakeholder group consisted of participants from the FET Colleges. The FET College institutions were established through the Further Education and Training Act No. 98 of 1998. Their primary roles are to provide for programme-based further education and training, and, the creation of new knowledge and the development of intermediate to high level skills. Public and private FET Colleges play a vital role in the offering of the NCV Learning Programmes. The FET Colleges ensure that the implementation of the curriculum for the NCV programmes fully covers both the practical and theory components. The theory component of the NATED courses is also offered by the FET Colleges as per the requirement for the apprenticeship-based programme for artisan development.

The participants from the FET College institutions were sampled purposively and clustered into three categories. One participant was sampled from senior management which is responsible for putting into operation the national FET College strategy that is inclusive of artisan development. Senior management at FET Colleges also ensure that linkages between DHET, UMALUSI, industry and SETAs are well-managed. The second category of participants sampled at the FET College sector consisted of three middle management participants. Middle management is important in that they manage the implementation of the operational plan which is inclusive of programmes that make provision for the development of artisans. The last sample of two participants was selected from the staff involved with workshop practical training and the trade testing of artisan candidates. The sampling of the college lecturers responsible for trade testing was relevant in that the DHET minister views FET Colleges as the primary centres in the development of artisans (Nzimande, 2010).

The last stakeholder group sampled for the face-to-face interviews consisted of industry representatives within the manufacturing sector. Industry plays an important role in the development of artisans for several reasons. It provides the required workplace experience for the different artisan development routes; it recruits apprentices and learners into the artisan development programmes and it also provides mentorship for all apprentices and learners at their

workplaces. The minister of DHET has called for industry to provide a training space in their workplace (DHET, 2012).

Four participants from the industry were sampled. The sample represented participants from management, employer federations and the metal chamber. All the participants are directly involved in the development of artisans.

The focus group discussion participants were sampled from merSETA's Accelerated Artisan Training Project (AATP) committee. The merSETA's AATP is the special project aimed at accelerating the number of artisan candidates going through the system without compromising the quality of the project. . The focus group participants consisted of eight members of the AATP committee. There are different AAT committees in different merSETA regions.

The researcher chose the Gauteng/Mpumalanga AAT committee because of its inclusiveness in terms of representivity. The Gauteng/Mpumalanga committee AAT has employers, private training providers and FET College personnel. The other advantage of the Gauteng/Mpumalanga AAT was its cost effectiveness because the researcher requested an interaction with them during their monthly meetings that take place at the merSETA.

4.3.3. Research instruments

Emanating from the literature review and the theoretical framework, the researcher synthesised key concepts and theories from which he defined the problem statement and purpose statement. This in turn resulted in the research questions that were to be interrogated through the data collection techniques.

The main research question from which secondary questions emanated was 'What institutional arrangements exist for the effective development of artisans in the manufacturing sector?' The researcher started by defining the key concepts in the questions in relation to the research study. The key theoretical concepts that were defined for the interviewees were: collaboration, institutionalism and governance as defined and elaborated on in chapter 3.

The researcher's face-to-face interviews were guided by the following sub-questions:

Collaboration related questions

- a) What is the role of your institution in artisan development?
- b) What collaboration arrangements does your institution have with other institutions involved in artisan development?
- c) What are the challenges and areas of good practice which your institution has in its collaboration arrangement with other institutions with regard to the development of artisans? (Hint: challenges or best practices can be with regard to funding, learner readiness, quality of programmes, certification, quality assurance, etc).
- d) Having identified successes and challenges in your collaboration with other institutions with regard to artisan development, what would you recommend to your institution and other institutions that could make your collaboration arrangements for artisan development more effective?

Governance and institutional related questions

- a) Are the current government policies and regulations (formal and informal) enablers or barriers for institutional arrangements in the development of artisans? Motivate your answer.
- b) Are the current regulations and policies promoting teamwork among the institutions with regards to arrangements in artisan development? Why?
- c) What are your suggestions to improve the current policies and regulations for artisan development within institutions?

The researcher's focus group research interview was guided by the following sub-questions:

'Getting in' and 'getting through' Artisan candidates:

- a) Would you say collaboration arrangements between institutions involved in artisan development are enablers

- or barriers for effective artisan development? Motivate your answer.
- b) How would you describe the challenges and successes of the governance policies and regulations that support artisan development within your institutions?

4.4. Data collection techniques

This section describes the data collections techniques that were used in this study. According to Khan (2011), data collection is described as the process through which empirical data is produced and collected (Khan, 2011:42). The primary data was collected using interviews. According to Mathekga (2012), an interview is described as 'a two-way communication process between two or more people' (Mathekga, 2012: 88). It involves both a message sender and a receiver, that is, someone who conveys the message and one who receives it' (Mathekga, 2012: 88). The assumption in conducting the interviews is that the questions asked will be understood by the receiver. This implies that the questions should be clear and unambiguous.

Data collection preparation for this research study started with detailed preparation when the researcher was writing his research proposal. At the time he also determined who will be involved in his data collection phase. Data was collected over a period of eight months between May 2013 and December 2013.

The researcher then started to collect relevant documents that would supplement his interviews and focus group discussions

Interviews were the main collection technique and the main source of data. Hence, the researcher relied heavily on interviews to get a deeper understanding of institutional arrangements for artisan development within the manufacturing sector. The researcher chose two forms of interviews to produce and collect empirical data.

The first form of interview which he chose was the face-to-face interview and the second form was the focus group discussion interview. Data collected through interviews was supplemented by the secondary data collection technique - document analysis. The data collection techniques are discussed in the following sub-sections below.

4.4.1. Face-face interviews

The face-to-face interview is the data collection technique in which structured or semi structured questions are addressed to a participant and the responses are recorded by the interviewer (Cresswel, 2012; McMillan & Schumacher, 1997). The qualitative research approach as stated in section 4.2 above allows for a more flexible process in conducting the research. It further delineates that there are no set procedures or rigid steps that were in place from the time of designing the study, choosing the data collection techniques and the analysis thereof (Mirriam, 1998). Flowing from the qualitative research approach as outlined in section 4.2 of this chapter, the researcher chose to follow the semi-structured interview approach.

According to Malatji (2004) (as cited in Sekgaphane, 2009) semi-structured interviews are defined as 'those interviews that are organised around areas of particular interest, while still allowing considerable flexibility in scope and depth' (Sekgaphane, 2009:53). The qualitative approach allows for flexibility in conducting the research without the prescribed steps to be followed in the different phases of research design.

The choice of semi-structured interviews was further necessitated by the fact that the interviewer has the latitude to structure and sequence the questions in the manner that will allow for detailed information to be gathered through elaboration on questions not fully answered (Buthelezi, 2010).

The face-to-face interviews further provide the researcher to get the full attention and cooperation of the participants. Cooperation is achieved when the researcher establishes relationships with the participants. Building relationships with the participants allows for building trust that will enable the participants to be at ease when providing or responding to the interview questions such that the probability of getting enhanced responses is high (Leedy & Ormrod, 2001). Building a relationship of trust in the face-to-face interviews also allows the researcher to ask probing questions by clarifying questions that are not clear and asking for further elaboration from the participants (Cresswel, 2012; McMillan & Schumacher, 1997).

The researcher collected data through semi-structured interviews with the DHET, NAMB directorate stakeholder participant, merSETA stakeholder participant, FET College

stakeholder participants and employers' stakeholder participants. The interviews lasted between 45 minutes and one hour each.

The interviews were conducted at a venue determined and agreed to by the participants. Most of the face-to-face interviews were conducted at the offices or institutions of the participants at a time convenient to them. The researcher began his interviews with a brief introduction to the purpose of the research project and why he chose the specific institution and participant for his research project. The researcher made reference to the invitation letter that was sent to the participant (see Appendix. 4). Confidentiality and anonymity of the interviewee were guaranteed.

Permission was always requested from the interviewee to record the interview proceedings.

The researcher also requested the participants to present to the best of their capability the views of their institutions and not their personal opinions because the research project was about institutional arrangements for artisan development in the manufacturing sector. The interviews were recorded and transcribed and the data was analysed using the qualitative data analysis process.

The researcher began by giving the context of his research topic and defining what was meant by artisan development in the context of institutional arrangements. He made reference to the concepts of 'getting in' 'getting through' and 'getting on' of artisan candidates as defined in Chapter 1. The researcher then proceeded to ask questions that were direct and pertinent to institutional arrangements for artisan development in the manufacturing sector. The questions were based on the theoretical framework and the problem statement in the research study. The intention questions sought clarity on the nature of the arrangements, with a focus on how collaboration and governance of the institution were managed. There was also the intention to determine the challenges in partnerships around FET College learning programmes that support artisan development; the current quality assurance and monitoring mechanisms supporting artisan development; and other support mechanisms such as the policies and regulations that are in place for the promotion of artisan development. Finally, the participants were asked to make their own overall

recommendation to improve institutional arrangements for artisan development in the manufacturing sector. This was important to determine the extent to which the participants could provide solutions to the areas which they highlighted as barriers or challenges.

4.4.2. Focus group interviews

Focus group interviews were used as the means of obtaining further details pertaining to the apprenticeship system because this is the most common route which is followed currently in the manufacturing sector. Secondly, they were used to determine the best practices and challenges that characterise collaboration and governance of institutions that support artisan development. The key activities for investigation included the apprentice's recruitment, readiness, admission process and the apprenticeship funding mechanism for the development of artisans.

Focus group discussion interviews had both advantages and disadvantages for the researcher. The advantage of the focus group discussion which Nieuwenhuis (2007) concurs with is the production of rich data. The focus group assisted the researcher to extract valuable information from debates and conflicting ideas (Nieuwenhuis, 2007; Cohen, Manion, & Morrison, 2007). Rich data was collected from the focus group discussions during which specific group dynamics became manifest and were analysed by the researcher. There were instances in this research study where the focus group interviews generated different views and the facilitator had to provide guidance to get consensus on the points under discussion.

One of the disadvantages of focus group discussions was the risk of dominance by more talkative participants. This impacted on those participants who were shy to share their experiences. In this study, the researcher, through the facilitator, encouraged the non-active participants to voice their views on the discussions.

The literature review and the theoretical framework of this study served as the basis for data collection and analysis of the discussions. The debates in the focus group discussions assisted the researcher to determine and evaluate the best practices and challenges that characterise collaboration and governance arrangements of institutions. One of the key

challenges for the researcher was to plan and constitute the right participants for the focus group discussion. The fact that the researcher wanted to have a selection of participants from the AATP committee meeting was initially an advantage which later became a disadvantage. The advantage was that it was cost-effective because participants were booked for the meeting. The challenge was the reluctance of the AATP committee members to participate in the focus group discussions.

The second challenge related to conducting the actual focus group interview. For a successful focus group discussion the researcher had to perform a number of tasks, some of them simultaneously. He had to take notes, ensure that the voice recorder was on at all times, ensure that he maintained eye contact with participants to evaluate non-verbal actions, ensure that he identified the less active participants and gave them the opportunity to respond to discussions, and he had to keep the group focused when the discussions started to become irrelevant – all this was not easy even though there was a dedicated facilitator. Focus group interviews 'call for skill in managing the group dynamics in order to get optimal performance' (Mathekga, 2012:94). There are parallel interactions happening simultaneously in a focus group interview. The researcher has learnt the lesson that while focus group discussions can be rich, much depends on the manner in which it is conducted and on the getting someone with good facilitation skills to chair the proceedings. Also, an additional resource person is required to take notes and to check the voice recorder might be invaluable for the novice researcher.

The purpose of the focus group discussion was briefly outlined to the participants and the guiding questions for discussion were projected as a slide show to keep the participants focused. The guiding questions as per Appendix 4 were used to steer discussions. The focus group interview discussions lasted for an hour. The participants would be referred to this table as and when their responses started to become irrelevant.

4.4.3. Document analysis

According to Creswell (2012); McMillan and Schumacher, (1997), documents serve as a valuable source of data which may be used as a non-interactive way of procuring data from different public and private records. Some of the key documents

used as a support and basis for interviews included the merSETA's annual performance plans and strategic plans for previous years, different research reports on artisan development that were commissioned by the , different DHET policy documents that outlined the roles of different institutions in the development of artisans.

The advantage of documents over interviews is that documents are already transcribed, edited and proof-read and the researcher can immediately do the analysis. This study was based on institutional arrangements for artisan development in the manufacturing sector. This means that the documents should have a link to the topic under investigation. The researcher had the advantage of being an employee within the manufacturing sector and access to some documents related to the topic under investigation was not a challenge. The other documents which were not readily available were sourced through different websites.

Some participants in the researcher's face-to-face interviews were also generous in providing him with supporting documents from their company's news articles.

The merSETA strategic documents reflect the history of artisan development in relation to employment opportunities within the sector. The merSETA's annual performance plans, which are the agreements between the merSETA and the DHET, provided the researcher with some reflections on collaboration and governance arrangements in the development of artisans. The annual performance plans show the involvement of the merSETA and the DHET in the development of artisans. The merSETA research documents reports provided the researcher with some background and information on the trends of artisan development impacts and the status and identity of artisan development that may have an impact on institutional arrangements to develop artisans in the manufacturing sector.

The researcher's involvement in the manufacturing sector made it easy to locate other government documents relating to artisan development. Some of the related documents included the presidential speeches such as the State of the Nation addresses, New Growth Path document; the Skills Accord documents, the Industrial Policy Action Plan document and the New Development Plan documents.

All these documents when analysed provide reflections and information on artisan development and the role of institutions in that regard. The available data supported the researcher to develop the basis for an inquiry which was corroborated by information gleaned from the face-to-face interviews and the focus group interviews. .

4.5. Data analysis

According to Cooper (2003: 702) as cited in Khan (2011), data analysis is defined as 'the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, themes and applying statistical techniques' (Khan, 2011: 44). Data analysis is further described by Hair et al (2003: 419) as the process involving the transformation of data to make it clear and understandable. The main themes for this study were, (1) understanding the efficiency of institutional arrangements in 'getting in' artisan candidates and, (2) understanding the efficiency of institutional arrangements in 'getting through' artisan candidates. The themes provide the linkages to the main research question which was 'What institutional arrangements exist for the effective development of artisans in the manufacturing sector?'

Data presentation and discussion was mapped to the findings in the literature. The purpose of mapping what was revealed by the data to the information revealed by the scholars in the literature was to assist the researcher in drawing his conclusions and arguments from the data. Data was further analysed against the theoretical framework – which focussed on collaboration theory, governance theory and institutional theory - discussed in Chapter 3 and the findings are presented in the next chapter.

The researcher categorised the conceptual framework into themes – referred to above – that emanated from the literature and the main research question. The themes were used in relation to institutional arrangements for artisan development in the manufacturing sector during the presentation of data and discussion. The following themes were used and they are:

- a) Understanding effectiveness of institutional arrangements in 'getting in' artisan candidates.
- b) Understanding effectiveness of institutional arrangements in 'getting through' artisan candidates.

The findings will be presented by, firstly, providing the question statement that was used in the collection of data. Secondly, the researcher clustered similar responses by summarising the data received from the respondents. The researcher further indicated the number of respondents sharing the same views from the total population of respondents. This assisted the researcher to assess the overall view of the respondents in relation to the subject under discussion.

The second part in the chapter on presentation and findings was the discussion on the findings. The discussion of the findings was also clustered according to the themes developed from the conceptual framework in relation to institutional arrangements for artisan development. Data collected was analysed and discussed in relation to the literature and the theoretical framework. The data revealed by the study was compared with what the scholars - referred to in the review - had to say on the same subject. The data could either confirm or provide something similar or completely different to the views of the scholars on the subject under discussion. The researcher used the mapping technique and the theoretical framework when presenting his arguments and conclusions on the data.

4.6. Validity and reliability

The events, places, people and any other data collected from people and documents was reported and described in detail with a clear reference on the source of information. According to Johnson and Christensen (2004), cited in Mathekga, (2012) validity in qualitative research refers to 'the fact that such a research is plausible, credible, trustworthy and therefore defensible' (Johnson & Christensen 2004: 249).

Janesick (2002) cited in Mathekga, (2012) further perceives validity as 'relating to description and explanation and building a cogent argument as to whether or not the explanation fits the description' (Mathekga, 2012:98).

The researcher made a concerted and conscious effort to minimise bias during the process of this research study by using more than one source of information such as face-to-face interviews, focus group discussions and document analysis. The researcher achieved triangulation by adopting the approach of multiple perceptions to clarify the meaning (Stake, 2000). He used different sources from different institutions to collect data related to the subject of institutional arrangements

for artisan development in the manufacturing sector. Participants ranged from the merSETA, DHET, FET Colleges and employers and the documents analysed covered other interested stakeholders in the development of artisans. Concepts were described in detail to ensure that the information collected was as authentic as possible.

Reliability is defined by Joppe (2000) cited in Dayel (2011) as 'the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can reproduce under a similar methodology, then the research instrument is considered to be reliable' (Dayel, 2011:46). 'Reliability of a measure is simply its consistency' (Bailey, 1994:72). To ensure reliability of the information collected, follow-up questions were asked and where required, the questions were clarified to the respondents. Reliability of the information was confirmed through comparing responses of participants from different institutions. Reliability was important in this study in that the researcher followed the convenience sampling in which the participants were selected purposively.

4.7. Ethical considerations

Moral values, ethical conduct and behaviour are critical components for all forms of social scientific research (Grix, 2004). The researcher has an obligation to ensure that his research does not put any individual participating in it at risk. The researcher has the responsibility of ensuring that he has an understanding of what is ethically correct and good and not to harm any of the participants.

It is imperative for the researcher to obtain clearance from the university's ethics committee. Permission to conduct this research study was granted by the Ethics Committee within the Faculty of Commerce Law and Management in the University of the Witwatersrand (see Appendix 4). Ethical clearance was first received from the university before making appointments or interacting with the participants.

The participants in this research study were not forced to participate. A consent letter was first sent to the participants to either confirm their participation or to decline when they could not participate in the research study (see Appendix 1). The participants were invited ten days or more before the actual day of the interview to give them enough time to prepare for the

interview. On the day of the interview, the purpose of the interview was explained to the participant and they were assured of the confidentiality of the interview information. The participants participated voluntarily and they could withdraw from the interview process at any given time. Anonymity was guaranteed in that the generic descriptions of participants was used such as senior manager in the DHET, manager in the merSETA, senior manager in the FET College and middle management manager in the FET College and senior manager in the federation.

The face-to-face interviews were conducted at a place convenient to the interviewee and the focus group discussion interviews were conducted within the premises of the merSETA where the venues are well protected. At all times the researcher refrained from asking any personal questions or to entertain any personal issues from the participants. The researcher took all necessary precautions to abide by the rules of the University of Witwatersrand which seeks to promote ethical behaviour and to ensure that the researcher's research study is credible and of high quality. The researcher also ensured that due care was taken to provide accurate results and a high level of interpretation thereof to maintain the standards of the university.

4.8. Limitations and bias of the study

The researcher acknowledges that skills development policies have an influence on institutional arrangements for artisan development. This study did not provide an evaluation of these policies.

This study was not a comprehensive evaluation of institutional arrangements for artisan development in that it was confined to the manufacturing sector. While the findings of this study cannot be generalised they can, however, be extrapolated to other sectors.

The other limitations in this study were with regard to document analysis. There was not enough documentation on artisan development with a particular focus on institutional arrangements. It cannot be concluded that the study provided both a comprehensive evaluation of the documentation and solutions to address institutional arrangements for artisan development. This is because of the method of convenience sampling that was used. It cannot be assumed that the sample was representative of the role-players in the development of

artisans. The views of other stakeholders were not enlisted to establish the significance of institutional arrangements in their positions. The end users (i.e apprentices and learners) were not interviewed in this study, to evaluate the significance of institutional arrangements to their learning experience.

The researcher is an employee of the merSETA and some of the merSETA stakeholders wanted to provide responses that are biased and positive to the merSETA. Some of the responses were skewed in support of the current and future relationship related to grants and accreditation with the merSETA.

The researcher used follow-up questions to redirect the interviewees where there was a need to do so. A focus group facilitator was nominated by the researcher and briefed prior to any facilitation being done. The researcher positioned himself outside the group in order to record his observations of the non-verbal interactions and to provide clarity and guidelines where required. The researcher was open with the participants by detailing the purpose of the study and mentioning the fact that the study was not commissioned by the merSETA. The participants were further assured that the study would not adversely affect them or the institutions they represent. The researcher had to continuously caution himself not to be biased because the researcher had been through the artisan development process himself and he works for an institution that facilitates artisan development.

4.9. Conclusions

This chapter presented the research approach undertaken through the research design and methodology followed in investigating the institutional arrangements for artisan development in the manufacturing sector. The research design and methodology outlined in this chapter assisted the researcher to get answers to the main question 'What institutional arrangements exist for the effective development of artisans in the manufacturing sector?' The study made it possible to have a foundation upon which the study was built through the presentation of research methodology. The chapter addressed the research population, research samples, research instruments and the data collection techniques as well as ethical considerations.

The study was important in that it taught the researcher different approaches to source information where circumstances might be limiting and biased. The next chapter will present the in-depth findings and analysis of the data collected through the different data collection techniques and approach presented in this chapter.

CHAPTER 5

PRESENTATION OF DATA AND DISCUSSION

5.1. Introduction

Chapter 4 dealt with the description of the research design and methodology. Details of the research population, research sample and research instruments were presented under research design and methodology. This chapter starts by first presenting the descriptive qualitative data from the findings followed by discussion and interpretations of data.

Data was collected using different research instruments. Collected data was further classified according to the themes emanating from the concepts of 'getting in' and 'getting through'. The perceptions of respondents to specific questions within the concepts of 'getting in' and 'getting through' were grouped and compared in presenting this data. Similar responses were further summarised and where emphasis is required, presented as examples of respondents.

The discussion on data was informed by both the conceptual framework and the theories discussed in Chapter 3. The conceptual framework as presented in figure 5 of Chapter 2 was used to structure the presentation of and discussion on data in the next sections. The two themes that underpin the researcher's data presentation and discussion are:

- a. Effectiveness of institutional arrangements in 'getting in' artisan candidates**
- b. Effectiveness of institutional arrangements in 'getting through' artisan candidates**

The questionnaire used in data collection assessed the respondent's perceptions and thoughts pertaining to institutional arrangements that exist in the development of artisans in the contexts of 'getting in' and 'getting through'. The respondents were further required to provide their suggestions for consideration in order to improve the institutional arrangements related to develop artisans in the manufacturing sector. The researcher first begins with a description of the two conceptual frameworks in the context of institutional arrangements for artisan development in the manufacturing sector.

'Getting in' focuses on how the artisan candidates from the feeder academic or occupational stream gain access to artisan training, the preparatory activities undertaken by different institutions and the

government to enable access to the specific artisan development route. 'Getting in' includes artisan candidate recruitment, the selection process, minimum entry requirements such as the National Technical Education (NATED) or ('N') N1 to N3, National Certificate Vocational (NCV) levels 2 to 4 programmes, relevant policies, support and funding systems and any other preparatory arrangements that may support the artisan candidate's entry into a specific artisan development route. In the context of this research study, 'getting in' also includes the artisan development process implemented at the FET College institutions. Arrangements for 'getting in' relate to the preparation of candidate artisans and also include how the learning programmes are structured and presented. The other critical area of 'getting in' includes the development of the relevant policies which will promote and increase access to artisan development through the different routes.

'Getting through' presupposes that the enterprise has placed advertisements to take on artisan candidates in a specific artisan development route. The 'getting through' process starts when the artisan candidate is interviewed for entry into a specific route and ends at certification after the artisan candidate has been deemed competent against a specific trade. It has its focus on institutional support to artisan candidates and it involves institutional arrangements to ensure that artisan candidates become competent in their trades. Elements of 'getting through' include artisan candidate registration and induction processes, mentoring and monitoring, education and training, quality assurance mechanisms, funding of artisan training, trade test preparation, assessment at the Decentralised Trade Test Centres (DTTCs) , administration of artisan training and certification of qualified artisans.

'Getting in' and 'getting through' conceptual frameworks are presented and discussed in relation to institutional arrangements which in this study refer to arrangements in the form of relationships, agreements, contracts and any other arrangements which might be in place as a result of government policies, regulations and guidelines for artisan development.

5.2. Findings on the effectiveness of institutional arrangements in 'getting in' artisan candidates

5.2.1 Entry readiness and funding arrangements in 'getting in'

Respondents were asked to provide their thoughts regarding the artisan candidate's state of readiness when entering the FET College from the Department of Basic Education institution starting from grade 9 to grade 12. Nine of the 12 respondents first share the relevance of the FET College institution as the primary institution in the preparation of artisan candidates before they are absorbed by the industry to the different routes of artisan development. They further indicated that the FET College sector experiences some challenges in the preparation of artisan candidates. The first challenge is the state of readiness of the candidates enrolled from the high school education system.

The respondents felt that the candidates from the schooling system are not ready for the FET College curriculum standards and requirements, particularly with respect to their proficiency in mathematics. They indicated that most of the candidates enrolled at FET Colleges did mathematical literacy (rather than pure mathematics) in their secondary schooling. The candidates struggle to cope with the mathematical demands in other subject areas at the FET College. One respondent remarked: 'The calibre of learners who have done mathematical literacy and not mathematics is a big part of the failure of learners. 'The entry level for NCV level 2 is Grade Nine but most of our learners have Grade Twelve but still struggle with our curriculum because of the fact that they did mathematical literacy and did not do science'. When probed further on the matter, 11 respondents blamed the government policies that are not structured effectively to support artisan development.

When asked about the funding initiatives that are in place to support artisan development, the respondent had differing views. Seven of the 12 respondents were of the view that the FET College institutions are well-funded by the government. The respondents also indicated that NSFAS is a good funding system assisting the previously disadvantaged to go through the artisan development process. Contrary to the views of the 7 respondents, 5 of the 12 respondents believed that the NSFAS system does not contribute positively to the development of artisans. Surprisingly, 5 of these respondents were from the

FET College institutions. 'The artisan candidates enrolled and funded through the NSFAS system do not take their learning seriously. Some of them enrol to get access to the allowance for transport and catering and they do not attend their classes effectively and they are the one's contributing to the high failure rate in the trade related occupations,' remarked one respondent.

5.2.2 Curriculum and quality assurance in 'getting in'

When asked about the FET College curriculum and the quality assurance that exists, the participants had different opinions and perceptions. With regard to the curriculum which is based on the NATED programmes, 9 of the 12 respondents thought that the NATED programmes were suitable for artisan development. They believed that the curriculum for the NATED programmes is quick to implement and is responsive to the needs of employers. In addition, employers do not have to release the apprentices for a long period of time. The challenge indicated by the 9 respondents was that the curriculum itself was outdated. The respondents suggested that the curriculum needed to be reviewed to be in line with the current technology. The remaining respondents indicated that they had never taught the NATED programmes and their knowledge was limited in that regard.

When responding to the curriculum based on the NCV programmes, 5 of the 12 respondents thought that the curriculum was current but there were challenges with regards to its implementation. The participants felt that the FET College institutions were not equipped to offer the practical part of the curriculum. 'Our workshops are not equipped and where they are equipped, you have the lecturers who are not artisans responsible for preparing the artisan candidates to become artisans,' remarked one respondent.

When asked about the quality assurance mechanisms that exist at the FET College institutions, 4 of the 6 respondents from the FET College institutions stated that the focus of quality assurance by Umalusi was on the theoretical examinations and less on the practical skills that were required by industry. 'Umalusi only conducts one quality assurance visit for the Integrated Summative Assessment Task (ISAT) for the project and in some cases, there are artisan candidates who never lay

their hands on the project but observe their colleagues doing the actual work,' remarked one respondent.

5.2.3 Quality of the existing staff capacity in 'getting in'

Respondents were asked to share their experiences with regard to the effectiveness of the current FET College lecturing staff in the trades. Ten of the 12 respondents believed that there was a challenge with the quality of the existing college lecturers. Four of the 4 respondents representing the employers, believed that the FET College lecturers do not have the necessary practical skills to prepare the artisan candidates for admission into the phase of 'getting through'. Four of the 6 FET College respondents remarked that it was unfortunate that because FET College lecturers were not well-remunerated, it was difficult to recruit lecturers who are qualified artisans. 'With the high rate of FET College enrolment, the college is employing lecturers with the theoretical N6 part qualification, who were never exposed to the practical skills of the trade,' remarked one FET College respondent.

The remaining 2 of the 6 respondents from the FET College institutions had a different opinion; they indicated that they had qualified artisans responsible for training in their workshops. The respondents from the DHET and the merSETA indicated that the quality of FET College staff needed capacity building.

The respondents suggested that the institutions involved in artisan development should provide capacity building for FET College lecturing staff. They further suggested that there was a need to take the FET College staff to employer sites during vacations and more linkages with companies needed to be established.

5.2.4 Existing governance in 'getting in' artisan candidates

When asked about the existing governance policies that support institutional arrangements for artisan development all the respondents from the FET College institutions indicated that there was a challenge with the communication and implementation of DHET's education policies.

All the respondents felt that the mechanism put in place by introducing the FET College policy document on the National Certificate Vocational (NCV) programmes for Levels 2-4 in Further Education and Training (FET) Colleges, published in

2006, was good. But they further noted that implementation of the policy was not well thought of. One respondent indicated, 'When the NCV policy document was introduced in 2007, we had no idea with regard to its implementation. Some of the lecturing staff started to attend the workshops in 2007 when the programmes were already implemented'. The other challenge raised with the policy on NCV was the availability of the resources; the workshops were not equipped with the necessary equipment and material.

Six of the 6 respondents from the FET College institutions, were of the view that the policies of the department do not support effective administration of teaching and learning. Respondents indicated that they were frustrated by the fact that learners had to progress to the next level without having successfully completed the previous level and that caused administrative challenges. This view suggested that some of the governance policies do not support effective institutional arrangements for artisan development. Secondly, they alluded to the fact that in as much as the policy states that learners must receive certificates upon completion of the level, at that stage no learners had received certificates at lower levels 2 and 3 other than those who have completed NCV level 4. One respondent remarked, 'Umalusi is reluctant to issue the certificates for lower levels because they do not conduct quality assurance of the NCV papers at Level 2. The marking of the NCV Level 2 papers is done internally at the college'.

There is no synergy between the number of artisan candidate that are enrolled at the FET College and the availability of employers in the sector, who can absorb the artisan candidates from the FET College institutions. 'Government policy arrangements aiming at increasing the college enrolment are not the solution in increasing artisan development in the sector,' said one respondent from the focus group discussion. The respondents suggested that the mismatch between the number of artisan enrolled at the FET College institutions and the number of available vacancies at the employer premises should be avoided.

5.3. Findings on the effectiveness of institutional arrangements in 'getting through' artisan candidates

5.3.1 Recruitment and readiness of artisan candidate in 'getting through'

Respondents in the focus group discussion were asked to provide their views on institutional arrangements related to recruitment and the state of readiness of the artisan candidates in 'getting through'.

The focus group discussants partly shared the views of FET Colleges in relation to 'getting in' but also felt that the artisan candidates from the FET College institutions were also not prepared to 'get through' in the artisan development process. The data indicated that mathematical literacy at both the secondary schools and the FET College was the barrier for the selection and recruitment of quality artisan candidates. The focus group shared the views that a contributing factor for learners to be directed to mathematical literacy was that there are often no capable mathematics teachers at both secondary schools as well as at FET Colleges. It is easier to channel the learners to do mathematical literacy. One respondent remarked, 'A high school principal was saying they direct learners to mathematical literacy because they are being punished for poor results when the learners do mathematics'. These views were highlighted as governance issues that become barriers to collaboration with the FET College institutions.

When probed further on the state of readiness, data revealed that there was a lack of proper implementation of career guidance. One respondent referred to the fact that 'the majority of artisan candidates, who go through the selection process, tend to choose the electrical trade as the focus for their FET College studies'.

The focus group indicated that they find it difficult to get artisan candidates who are well-prepared for all the trades either from the FET College or secondary school. One focus group respondent indicated, 'Because of the lack of research and implementation of career guidance there is a mismatch between the skills plan and the skills demand. Our basic education is the biggest stumbling block. There is a disjuncture between school and the world of work'. The focus group respondents felt that the other aspect not addressed by career guidance was the attitude of the youngsters identified by

employers during interviews. The respondents remarked, 'Government needs to have a more structured career guidance or awareness policy at an early stage to support artisan development'. The respondents felt that the youth have a culture of not wanting to work with their hands.

One respondent in the focus group indicated that youngsters did not understand how mastering the craft can make them realise their life time career. The respondents in the focus group further indicated that there was a lack of proper understanding and willingness to follow the artisan route and that became a stumbling block for institutional arrangements in 'getting through' artisan candidates.

5.3.2 Mentoring and monitoring of artisan candidates in 'getting through'

The respondents were asked to share their thoughts and experiences with regards to the mentoring and monitoring of artisan candidates in the process of 'getting through'. The focus group respondents suggested that the first area which was important in quality assurance collaboration arrangements was to have proper internal systems during the actual training process. Proper monitoring internally was important where proper orientation is done including company culture, and visiting learners at institutions. One responded remarked, 'In the workplace, there must be a monitoring visit by the merSETA to see if the log books are completed correctly and that the artisan candidate gets exposed to the correct tasks which address overall competence in a trade'. A dedicated team to make sure that there is proper implementation of the training should be made available. The participants remarked that these forms of collaboration arrangements will yield positive results for artisan development.

The respondents indicated that mentoring and monitoring were easily implemented by large companies within the manufacturing sector but difficult to implement in small companies. One respondent remarked that for companies training internally mentoring and monitoring were easier because the trainers also made regular visits to the workplace. One respondent in the focus group discussion said 'In some organisations you find training practitioners and mentors who don't have expertise regarding what must happen with the artisan candidate from day one until the last day. That skill is

getting finished slowly but surely. Some time ago there was a drive to train personnel responsible for training. Currently people mastering the skill of training the artisan candidate are ageing and in future we will find it difficult to replace the skill of mentoring and training’.

5.3.3 Governance and funding of artisan candidates in ‘getting through’

The respondents were asked to provide their thoughts on institutional arrangements regarding the policy initiatives to support artisan candidates in ‘getting through’. Six of the 12 respondents remarked that government arrangements to support artisan development had good intentions but were subject to abuse. They indicated that the levy grant system was in itself a good tool to encourage companies to participate in artisan development. The biggest issue with the levy grants was the way it was being used. It has been partially good for companies that would claim 50% from the mandatory grant component. However, the mandatory grant does not help in terms of addressing artisan development. One respondent remarked, ‘There has been a research by NEDLAC in which it was found that companies put into their Workplace Skills Plan (WSP) legislated training such as HIV, soft skills, forklift training and fire fighting but no actual artisan development skills’. The respondents felt that this type of legislative abuse had an impact in ‘getting through’ artisan candidates.

When probed further on the funding system, 5 of the 12 respondents were of the view that the current grant system was better in that the 50% of the grant was allocated to Professional, Vocational, Technical and Academic Learning (PIVOTAL) programmes, with only a 20% provision for any other programmes. Regulatory training required by law is also limiting artisan training because the company would still be conducting such training as health and safety even if there was no grant. One respondent said ‘It is hoped that the new grant system will boost the development of artisans’. The remainder of the respondents were not in favour of the current policy initiative because they believed that the levy contribution would not be returned to companies.

Further responses to governance and institutional arrangements questions were regarding the percentage requirement to pass at both the FET College and at secondary

schools. The pass mark for courses as stipulated in the policies is 30% for the subject, while the pass mark for the modules after enrolling the artisan candidate is 80% and above. The artisan candidates then struggle to meet the standard requirements of an occupation. 'The rating of competent and not yet competent is used for the practical tasks, and this method of assessment simply means that the task can be done or not done, but one can not say getting 40% makes you competent against the given task' remarked one respondent. This was yet another area regarded as a mismatch between the institutions. The respondents suggested that the percentage to be deemed competent at a FET College should be increased in line with what is deemed to be competent at industry level.

When probed further to deliberate on the current NSDS III strategy, 10 of the 12 respondents were of the view that the NSDS III was a good policy framework in that it puts more pressure on the FET College and the SETAs to collaborate and such collaboration would contribute positively to institutional arrangements for artisan development. One respondent said 'Currently there are SETA offices in all fifty FET colleges and that shows some positive results for both the companies and the FET College institutions involved in fostering institutional arrangements for artisan development.'

5.3.4 Quality assurance of skills development providers and decentralised trade test centres in 'getting through'

The respondents were asked to share their experiences and thoughts with regard to the existing quality assurance system in 'getting through' the artisan candidate. Seven of the 12 respondents were of the view that the current quality assurance system was not working. One respondent remarked, 'There are three specific issues regarding accreditation/moderation of artisan development. The current artisan development system is sector-based and fragmented; each sector is different from the other. You have the merSETA quality assurance (QA) system, the Mining Qualifications Authority (MQA) QA system, the Chemical Industries (CHIETA) QA system and the list is long. The second issue is the trade testing which is manual-based and has limited control mechanisms. There are companies that prepare their learners for the trade test; this aspect is subject to fraud. Thirdly, the Recognition of Prior learning (RPL) which is referred to as section 28 in terms of the

MTA is also subject to fraud because candidates buy and produce fraudulent copies of service experience letters’.

When further prompted on QA matters, one respondent said, ‘I’m happy that there are policies in place from SAQA and other internal policies developed for the monitoring of quality. The challenge is with regard to the capacity to conduct proper monitoring and that applies to all the institutions such as SAQA, QCTO and the SETAs. In terms of monitoring, agreeing on the actual outputs is a challenge’.

One respondent indicated that some quality assurance activities were done on paper and assumed that the approach would lead to the production of quality artisans, which was not the case. The respondents emphasised that private providers were in training for business and they (the providers) equate passing to the incentive they receive; thus compromising quality. Two of the 12 respondents remarked that some providers even promise to produce an artisan in six months, during their marketing campaign. Other centres will train artisans specifically for writing the trade test. The respondents were of the view that because of capacity and resource constraints, merSETA was not able to monitor each learner. Some learners would be registered and qualify without having been monitored. ‘Due to the number of assessment centres, monitoring them is a challenge,’ remarked one respondent. Institutional arrangements to ensure that the calibre of the artisan produced is of quality are generally poor.

One respondent from the FET College institutions that are accredited as a trade test centres, said, ‘I know some of my colleagues in the sector, who have never been to industry but they have a trade test qualification. They can hardly operate some of the machinery in the workshop and they cannot make any move to the industry’. Seven of the 12 respondents believe that quality differs from one provider to another and where the employer trains (artisans) for themselves or are directly involved in training interventions, they (employers) are able to make sure that quality is produced.

5.4. Discussion of findings in institutional arrangements in ‘getting in’

5.4.1 Success and challenges in the state of readiness and funding arrangements in ‘getting in’

'Getting in' is underpinned by various initiatives by the institutions involved in the arrangements for artisan development. The respondents were asked to share their views on and experiences with regards to the state of readiness and funding for artisan candidates at the FET College institutions. Whilst there are challenges as reflected in the responses of the respondents there are, however, some good possibilities through the funding arrangements. The broader view of the respondents highlighted the lack of quality in the artisan candidates recruited and enrolled from the Department of Basic Education (DoE).

According to Wanna (2007), success of the institutions with a common goal is on collaboration of those institutions in which he described collaboration as 'working together or working in conjunction with others' (Wanna, 2007:3). The researcher argues that the institutions involved here, which are the DoE and the FET Colleges, do not work effectively together to achieve the required standards in the preparation of the artisan candidate.

There are no real connections and responsibilities between the DoE and the FET College to ensure successful implementation of the FET College programmes. According to Fel's (2008), government and community should work together in a space of clear and real connections. The intentions of the DoE and FET Colleges in engaging in collaboration are good but unclear on the implementation of collaboration to ensure the widening of access to artisan programmes through the proper and well-prepared curriculum linkages.

From the literature review, the notion of 'getting in' was prevalent in Germany where the employers did not have confidence in the quality of artisan candidates from the lower vocational school. Fuller and Unwin (2009) noted the same notion of institutional linkages and learner preparedness in the UK where learners with a Level 2 qualification could not proceed to Level 3 and qualify as artisans

Asked to comment and share their experience with regards to the funding arrangement, 7 of the 12 respondents felt that funding for the artisan candidates was made available by the government. The 5 of the 12 respondents, who did not agree with the NSFAS funding model, felt that artisan candidates funded through NSFAS contribute to the high failure rate. The

literature review from the OECD countries has shown that most of the learning for the artisan candidate when doing the off-the-job training is contributed by the artisan candidate.

The views of the respondents show that although there are good intentions of state funding, the DHET needs to be involved in ensuring that funding itself does not do the work on their behalf in that success is achieved through much more than just a good funding model. According to Huxham and Vangen (2008) institutional arrangements in which the power is in the purse string, does not always lead to positive results. The researcher argues that whilst the aims of the DoE and the FET College institutions are good, it is critically important that the two institutions develop a plan on how to reach their aims for artisan development.

5.4.2 Relevance of curriculum and quality assurance in 'getting in'

The respondents were asked to comment on the existing curriculum and quality assurance mechanism. Nine of the 12 respondents were in favour of the NATED programmes curriculum whilst 3 of the 12 participants indicated that the NCV curriculum was relevant for artisan development. The researcher is of the opinion that these different perceptions are a result of NCV and NATED programmes being offered in parallel at FET College institutions.

The views of the respondents around the good intentions behind developing the NCV policy, albeit with poor implementation, as well as the scrapping and re-introduction of the NATED programmes, are reflected in the theoretical framework. Huxham and Vangen (2008) argue that government policies on skills development are being implemented through partners and the frequency with which some of the policies change may affect the partnerships (Huxham & Vangen, 2008).

Responding to the relevance of the current quality assurance measures, 4 of the 6 respondents from the FET College institutions did not agree with the quality assurance system at the FET College institutions. From the respondents' feedback, the researcher argues that quality development of an artisan cannot start at the phase of 'getting through' the artisan candidate, but should be addressed at the phase of 'getting in'. The assertion confirmed by this data as applicable in the manufacturing sector is that in the UK where the employers are

not involved in the quality assurance system or the crafting of the curriculum for the vocational schools.

5.4.3 Adequacy of the quality of existing staff capacity in 'getting in' artisan candidates

Regarding this aspect the respondents were asked to share their thoughts and experiences pertaining to the effectiveness of the current FET College lecturing staff in the trades. Ten of the 12 respondents believe that there is a challenge with regard to the quality of the college lecturing staff in the trades. This assertion is similar in the literature from the UK in which Harris et al (2003) note that some employers view what is learned at the college where artisan candidates are prepared in 'getting in' as not ready for the real world of work, in that the college teachers are not skilled to prepare the artisan candidate to 'get through' the process.

Huxham and Vangen (2008) noted that institutional arrangements require a trust-building loop to make collaboration efforts a success. The researcher argues that in order for the artisan development system to work at the FET College institutions, there is need to build capacity to ensure that the partners in artisan development process trust each other.

5.4.4 Relevance of the existing governance in 'getting in' artisan candidates

When asked about the current policies which seek to support artisan development and institutional arrangements, 6 of the 6 FET College respondents were of the view that the policies were forced on them without any consultation. They indicated that the NCV policy does not support effective administration of artisan candidate development. This data, when compared with the literature from the four countries in chapter 2, best resonates with institutional arrangements in the UK where the policies are not a determining factor in guiding the development of artisans.

Stoker (1998) argues that 'governance perspective should also draw attention to the need for increased involvement of the private and voluntary sectors in service delivery and strategic decision-making' (Stoker, 1998). The researcher argues that policies of the government should assist and steer the implementation of artisan development to success. Against this

background, the researcher concurs with the views of Stoker (1998) that government should involve and prepare its partners for effective artisan development initiatives in the manufacturing sector.

5.5. Discussion of institutional arrangements in ‘getting through’

5.5.1 Successes and challenges in the recruitment and readiness of artisan candidate in ‘getting through’

Respondents were asked to share their views on and experiences with regard to the successes and challenges of artisan candidates in ‘getting through’, with a focus on the state of readiness during the recruitment. The data in this study revealed that there are a number of challenges experienced in the recruitment process. The most notable concern was with regards to career guidance in preparing the artisan candidate. One respondent remarked, ‘Government needs to have a more structured career guidance or awareness policy at an early stage in support of artisan development’.

From the literature review in this study, the researcher argues that the state of readiness is a generic problem even among the OECD countries. Literature in this study has revealed that in the UK, artisan candidates find it difficult to progress to level 3 and qualify as artisans, and, similarly there is a challenge in Australia where artisan candidates withdraw from the artisan development process. According to Snell and Hart (2007), there has been a growing concern with regards to the non-completion of apprenticeships in Australia.

The researcher concludes that over and above the technical readiness of the artisan candidates to ‘get through’ the artisan development process, there is a need to have a more structured career awareness at an early stage of our schooling system.

5.5.2 Mentoring and monitoring of artisan candidates in ‘getting through’

Respondents were asked to share their thoughts on and experiences with the mentoring and monitoring of artisan candidates in ‘getting through’ the artisan development process. The data from the focus group suggested that there is a challenge with regard to the skills of mentoring the artisan

candidate. One respondent remarked, 'In some organisations you find training practitioners and mentors who don't have expertise of what must happen with the artisan candidate from day one until the last day. That skill is getting finished slowly but surely. Some time ago, there was a drive of training personnel responsible for training. Currently people mastering the skill of training the artisan candidate are ageing and in future we will find it difficult to replace the skill of mentoring and training'.

The literature review in this study, confirms this assertion. Harris et al. (2003) noted that the trainers or teachers at the college viewed the two learning sites from the workplace and from the college as not being complementary to each other. College teachers felt that different employers have different views and understandings regarding the knowledge and practical skills gained at the college. The college teachers remarked that the apprentices from the off-the-job learning get to be supervised by people who are not qualified artisans or who do not have the requisite supervisory experience when the apprentices are at the workplace to 'get through' the artisan development process.

Huxham and Vangem (2008) noted that the outcomes of any collaboration largely depend on the support of leadership. The leadership of the artisan development process should steer and provide advice on the implementation, monitoring and mentoring of the collaboration processes related to artisan development. The researcher argues that there is a need for the partners in artisan development to collaborate and support proper mentoring and monitoring of artisan candidates. This is in itself another confirmation of arrangements related to monitoring and mentoring.

The literature review in this study and the data point out that depending on internal commitment, capacity of mentors and the resources put in place to support artisan development, there will be challenges experienced with regard to the quality of artisan candidates 'getting through'.

5.5.3 Identified impediments in governance and funding of artisan candidates in 'getting through'

The respondents were asked to identify the impediments and successes of governance policies and the funding arrangements in 'getting through' artisan candidates. The data suggested that there are good policies put in place to support

artisan development. The challenge with the current policies is their segmentation according to institutions. Policies for the FET College institutions do not provide direct linkages to skills development policies that exist to regulate for the SETAs and companies.

Data also helps us to note that the new grant system policies implemented in April 2013 are much better in that they start to cut across the SETA stakeholder companies and the FET College institutions. Furthermore, data suggests that the NSDS III strategy is an implementation policy that makes the SETAs and their stakeholder companies start working more closely with the FET College institutions.

The researcher argues that the current policies as mentioned above are taking the artisan development in the right direction. This is confirmed by Deissinger and Hellwig (2005) as indicated in the literature of this research study. Deissinger and Hellwig (2005) suggest that the CBT system in Germany operated to the exclusion of the VET colleges, but because of the disjointedness in the development of artisans, Germany had to review its policies to make the CBT system work more closely with the VET colleges (Deissinger & Hellwig, 2005).

The literature further confirms the importance of policy linkages across the sectors and this confirmation is noted by Payne (2002) who mentions that in the UK the review of MA to AMA was done considering that the areas of quality versus inclusiveness must be addressed in consultation with the stakeholders in the system

It is important for the stakeholders that are involved in artisan development to work jointly with one another in 'getting through' artisan candidates and the policies should support such collaboration. This is confirmed by the theoretical framework in this study. When collaboration works well for a common purpose, it inspires and the participants feel the collaborative energy. Huxham and Vangen (2008) noted that collaboration can have two outcomes. On the one hand, it leads to the achievement of something that could not have been achieved by one organisation working alone. On the other, it can be negative when the process to achieve the outcome is just slow and causes pain for the other party. The researcher argues that the same will apply with governance and funding arrangements.

In relation to funding arrangements, the data further suggested that there is a need for the WSPs to include the critical skills contributing towards artisan development as opposed to having the mandatory skills such as legislation and HIV training. This levy grant policy on institutional arrangement for funding will ensure that more funding is geared towards artisan development.

5.5.4 Quality assurance of skills development providers and decentralised trade test centres in 'getting through'

When the respondents were asked to share their thoughts on and experiences with regard to the current quality assurance system of skills development providers and the decentralised trade testing centres, the data suggested that the current policy allowing for multiple ETQAs to manage artisan development is not conducive for 'getting through' artisan candidates. This study revealed that the current artisan development system is sector based and fragmented; each sector is different from the other. There is the merSETA quality assurance system, the Mining Qualifications Authority (MQA) QA system in which the standards are different. This affects the manufacturing sector in that the skills and competencies received from the merSETA are not portable across other ETQAs.

This fragmented institutional arrangement is confirmed in the literature in this study. In Germany there are different chambers in different states responsible for quality assurance in their chamber. The same applies in Australia where standards are regulated by the Australian Qualifications Authority but implemented differently at Technical and Further Education (TAFE) institutions in different states. The researcher agrees with the findings in this study in which the respondents were in favour of the newly established Quality Council or Trades and Occupations (QCTO), responsible for the single quality assurance system for the trades and occupations as well as a single certification system.

This view is further supported in the theoretical framework in this study. The data suggested that the QCTO approach is good because there is more consultation in QCTO policy development and delegation of other activities. Stoker (1998) notes that responsibilities should not be government-centred; different institutions with an interest in artisan development

should be involved in partnership with government institutions. Delivery of some services within the public sector now requires the contracting of the public-private partnerships. Stoker (1998) further argues that the government should not be a stand-alone institution that divorces itself from the other forces in society. It is against this background that the researcher agrees with the data on quality assurance mechanism and new policy initiatives.

5.6. Conclusions

In conclusion, this study has confirmed some of the findings in the literature review and the theoretical framework. The complexity of the two forms of programmes (NATED and NCV) offered at the FET College institutions destroys the administrative efficiency to produce quality artisan candidates for the world of work. There is still some uncertainty whether the system needs two forms of learning programmes at FET College institutions. Whilst there is a concern about the continuous review of policies that support artisan development, there is, unfortunately, a need to re-look at the current policy initiatives to produce an artisan from the FET College institutions.

Secondly, there are good intentions revealed in the study to make resources available for artisan development. The implementation is hindered by the lack of capacity of the college lecturers to the point that the chain of institutional arrangements to produce an artisan is weakened. Whilst it has been noted in the discussions above that there is a positive attitude towards NSFAS initiatives, there is still a need to put in place evaluation and monitoring mechanisms to assess the return on investment for this initiative.

There is a need to have well-collaborated institutional arrangements between the high schools and the FET College institutions such that the curriculum offered at high schools complements the FET Curriculum. The same applies with the FET College institutions wherein the pass rate standard ought to match the standards expected by the enterprise. Part of strengthening the provision of quality should also include more holistic career awareness.

The study could not reveal if there was any proper plan with regards to artisan candidate placement, from 'getting in' to getting through'. Institutional arrangements should create more training space in the

enterprise for artisan candidates who have gone through the FET College institutions.

The study has also revealed that there were challenges related to mentoring and monitoring after the artisan candidates have been absorbed into a specific artisan route. Quality cannot be produced by the trade test assessment centres if there was no provision for quality during the training phase. Institutional arrangements should not be about increasing the number of artisans alone but also on the need to build quality. Increasing the numbers at the FET College institutions through the provision of NSFAS funding is not the solution to increase the level of quality of the artisan.

This chapter presented the findings and discussions related to 'getting in' and 'getting through' artisan candidates in institutional arrangements for artisan development in the manufacturing sector. The next chapter presents conclusions and recommendations in relation to the whole study.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

The purpose of this chapter is to provide conclusions and recommendations emerging from this study on institutional arrangements for artisan development in the manufacturing sector.

There were some important findings with regard to the challenges in 'getting in' artisan candidates. These highlight the readiness of the FET College sector as an institution to ensure that artisan candidates are well-prepared in 'getting through' the artisan development process.

It became evident that there are different stages involved in the development of artisans. The focus of my research was mainly limited to collaboration challenges and best practices in relation to the concepts of 'getting in' and 'getting through' in relation to institutional arrangements. The primary question which guided the researcher's study and the main research interview questions was 'What institutional arrangements exist for effective development of artisans in the manufacturing sector?' The interview questions were centred based on the literature review and the problem statement in this study. The three theories which served as a benchmark for the tried and tested assumptions were: Collaboration theory, governance theory and institutional theory. Governance theory and institutional theory have a very close relationship and as such the two theories were addressed through similar approach. Linked to the literature in this study, the three theories were used as a tool for the analysis and discussions as presented in Chapter 5 of this study.

6.2. Conclusion

6.2.1. Arrangements related to 'getting in'

One of the major challenges contributing to fragmented collaborations between the FET College and the industry are the policies regulating the FET College learning programmes. The FET Colleges offer anything and everything that might possibly lead to the development of artisans. This poses a challenge in that some of the programmes are legislated in the FET College Act of 2006 whilst others are not legislated to be offered by the FET Colleges.

Where industry has preference over those programmes that are not legislated for the FET Colleges, the FET College finds itself in dilemma of having to enter into collaboration with the industry with regard to the programmes of their preference. Ultimately the quality of provision for both the legislated and non-legislated programmes is compromised. The researcher argues that the FET College institutions do not have the capacity to provide multiple-programmes that contribute towards the development of artisans. The lack of capacity of FET College institutions to produce quality candidates is the major contributor to these institutions getting minimal support to collaborate effectively with the industry.

The second challenge contributing negatively to the provision of the college programmes is the lack of capacity of the FET College lecturers and the limited workshop resources to offer practical skills. Institutions cannot enter into effective collaborations and partnerships if leadership does not provide resources to encourage collaboration. Leadership in government should consider an urgent intervention to upgrade the skills and competence of the FET College lecturing staff offering the trades.

Thirdly, the researcher argues that artisan development cannot be successful if the artisan candidates are not well prepared at school and FET College level. Data has revealed that the mindset of the artisan candidates is negative towards the trades. Artisan candidates are not willing to get their hands dirty. Learners at schools and FET Colleges should be provided with career guidance so that they see the future from the perspective of trades and occupations.

The researcher argues that the importance of an institution in any form of collaboration cannot be measured through injection of funds but through their actual participation in and monitoring of collaboration activities.

6.2.2. Arrangements related to 'getting through'

Arrangements related to funding, administration and quality assurance of the provision of training highlighted some challenges. The major issue in this regard being the commitment of the partners to the process of artisan development. The performance of the merSETA as an

institution responsible for the facilitation of skills development related to trades is measured mostly on targets.

The study has also revealed that there are challenges related to mentoring and monitoring after the artisan candidates have been absorbed into a specific artisan route. Quality cannot be produced by the trade test assessment centres if there was no provision for quality during the training phase. Institutional arrangements should not only be about increasing the number of artisans; there is also a need to build on quality. Increasing the numbers at the FET College institutions through the NSFAS funding is not the solution to increase the quality of artisans if there are no proper linkages between institutions involved in the development of artisans.

The researcher argues that the importance of an institution in any form of collaboration cannot be measured through injection of funds but through their actual participation in and monitoring of collaboration activities.

6.3. Suggestions and recommendations for future research

There are some limitations in this study pertaining to the areas that have been researched and discussed. The research study was not detailed with regards to arrangements in specific institutions but broadly investigated institutional arrangements for artisan development. The researcher recommends further research in the following areas:

The benefits of multiple programmes at FET Colleges in support of artisan development. This research should provide recommendations on which programmes should be offered by the FET College institutions. Where there is a need to offer multiple programmes, the research should indicate the best approach to offer multiple programmes.

The efficiency of the current funding system for artisan development including NSFAS funding, as well as the effectiveness of the current discretionary and mandatory grant system.

Collaboration between the DHET and SETAs in support of artisan development. Part of the recommendations to be investigated should be the monitoring and evaluation measures related to collaboration agreements.

The role of small and medium enterprises in artisan development. This is purely because this study concentrated on the role of large companies associated with the merSETA.

The linkage between career awareness and artisan development is another area for investigation. This is crucial in that there is a high percentage of artisan candidates who do not complete their training. There is no return on investment in the case of artisan candidates withdrawing from the programme.

This study focused on institutional arrangements related to 'getting in' and 'getting through'. There is a need to conduct a further research on institutional arrangements for artisan development with a focus on 'getting on'.

6.4. Concluding comment

This study has made a strong case for greater consideration of the need to manage institutional arrangements for artisan development. Although the study focused on artisan development in the manufacturing sector, lessons learnt may be applied to other sectors involved in artisan development. This study has illuminated the challenges experienced in arrangements for artisan development at institutions generally. The study has further demonstrated that despite the efforts made by the government, merSETA, industry and other institutions to increase artisan development, effective collaboration and governance in institutional arrangements requires further attention.

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APPENDIX 1

4632 Umgandane Street
Birch Acres
Kempton Park
1618

28 March 2013

Dear Mr. XXX

Research Project: Institutional arrangements for artisan development within the manufacturing sector

My name is Sinaye Mgidi. I am currently studying for the Masters of Management in Public Policy at the University of the Witwatersrand (Faculty of Commerce, Law and Management). I would like to personally invite you to participate in the above-mentioned research project.

The project aims to:

Collect and analyse different institutional arrangements and experiences for the development of artisans within the manufacturing sector

Identify a range of issues around artisan development and the subsequent interventions required to increase artisan development within the manufacturing sector.

This research project will assist the participant and his or her institution in that recommendations will be shared in the form of the paper to be shared within the sector.

The duration of the interview will be approximately one hour. The name of the interviewee will neither be mentioned nor used in the research project and the interviewer will maintain the highest ethical standards as expected by the university.

Should you be willing to assist the researcher with this project, please confirm in writing and send the response to smgidi@merseta.org.za. The researcher will set up the interview date and time in consultation with the interviewee.

Kind regards

Sinaye Mgidi (student)

Tel: 010 219 3457

Cell: 082 465 1794

Email: smgidi@merseta.org.za

APPENDIX 2

Dear AATP Partner

Please find attached an invitation to participate in my research project focus group discussion. The purpose of the research is indicated in the attached invitation letter and I would like to have the maximum of twelve participants in the focus group discussion.

Please confirm your availability for this research project in writing.

Regards

Sinaye Mgidi (student)

Tel: 010 219 3457

Cell: 082 465 1794

Email:smgidi@merseta.org.za



Faculty of Commerce, Law & Management
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

4632 Umgandane Street Birch Acres
Kempton Park
1618

13 May 2013

Dear AATP Partner

Research Project: Institutional arrangements for artisan development within the manufacturing sector (Focus group discussion)

My name is Sinaye Mgidi. I am currently studying for the Masters of Management in Public Policy at the University of the Witwatersrand (Faculty of Commerce, Law and Management). I would like to personally invite you to participate in the above-mentioned research focus group discussion project.

The project aims to:

Collect and analyse different institutional arrangements and experiences for the development of artisans within the manufacturing sector

Identify a range of successes and issues around artisan development and the subsequent interventions required to increase artisan development within the manufacturing sector.

This research project will assist the participant and his or her institution in that recommendations will be used to improve linkages within the manufacturing and FET sector.

The duration of the interview will be approximately one hour. The name of the participants will neither be mentioned nor used in the research project and the researcher will maintain the highest ethical standards as expected by the university.

Should you be willing to assist the researcher with this project, please confirm in writing and send the response to smgidi@merseta.org.za. The focus group discussion will take place immediately after the AATP meeting scheduled for the 21st May 2013 at the merSETA offices.

Kind regards

Sinaye Mgidi (student)

Tel: 010 219 3457

Cell: 082 465 1794

Email: smgidi@merseta.org.za



Faculty of Commerce, Law & Management

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

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23 August 2012

**Mr KS Mgidi
4632 Umgandane Street
Birchacres
Kempton Park
1618**

**Student Number: 584489
Ethics Number: BPADM/3068**

Dear Mr Mgidi,

I have pleasure in informing you that the **P&DM Post Graduate Degrees Committee** has approved the following title for your Research / Project Report:

Institutional arrangements for artisan development in the manufacturing sector

Furthermore the committee has appointed the following supervisor: **Prof P Lolwana**, with whom you should maintain regular contact.

Please ensure that the title on the bound copies of your research report is the same as that approved by the Post Graduate Committee.

You will be required to submit to the Faculty Office on submission of the report:

Three spiral bound copies of the Research Report
one copy of the abstract
one copy of the title page
an electronic copy in PDF format (clearly labelled)
supervisor's clearance form
title agrees with proposal title ratified
overall supervisor evaluation
submission form
sign all copies of the report
complete the "M" form (personal information form) available from the Faculty Office
fees clearance
defence panel status

Please note that you need to be registered every year until your graduation.

Please note: After confirmation of the final Research Report mark, you will be required to submit two unbound final corrected copies signed and dated, an electronic copy (in PDF format), a signed library **clearance form** and have completed the full ETD form.

We wish you success with your research.

Kind Regards

Ms Jenny Mgolodela

Faculty Officer

Faculty of Commerce, Law & Management

Cc: Prof P Lolwana

Interview schedule

The researcher's face-to-face interviews were guided by the following sub-questions:

Collaboration related questions

- (a) What is the role of your institution in artisan development?
- (b) What collaboration arrangements does your institution have with other institutions involved in artisan development?
- (c) What are the challenges and areas of good practice which your institution has in its Collaboration arrangement with other institutions with regard to the development of artisans?
- (d) (Hint: challenges or best practices can be with regard to funding, learner readiness, quality of programmes, certification, quality assurance, etc).
- (e) Having identified successes and challenges in your collaboration with other institutions with regard to artisan development, what recommendations could you suggest for your institution and other institutions that could make your collaboration arrangements to work effectively for artisan development?

Governance and institutionalism related questions

- (f) Are the current government policies and regulations (formal and informal) an enabler or barrier for institutional arrangements in the development of artisans? Motivate your answer.
- (g) Are the current regulations and policies promoting the institutions to work as a team with regard to arrangements in artisan development? Why?
- (h) What are your suggestions in improving the current policies and regulations for artisan development within institutions?

The researcher's focus group research interview was guided by the following sub-questions:

With reference to 'getting in' and 'getting through' artisan candidates through the different routes of artisan development:

- (i) Would you say collaboration arrangements between institutions involved in artisan development are an enabler or barrier for effective artisan development? Motivate your answer.
- (j) How would you describe the challenges and successes of the governance policies and regulations that support artisan development within your institutions?