
GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF HIGHER EDUCATION AND TRAINING**NO. 704****11 AUGUST 2015****DRAFT NATIONAL ARTISAN DEVELOPMENT TRADE TEST PASS RATE
AND QUALITY IMPROVEMENT STRATEGY, 2015
SKILLS DEVELOPMENT ACT, 1998 (ACT 97 OF 1998)**

I, Dr Bonginkosi Emmanuel Nzimande, MP, Minister of Higher Education and Training, in terms of section 26A read with 26C (4)(a)(b) of the Skills Development Act, 1998 hereby publish the Draft National Artisan Development Trade Test Pass Rate and Quality Improvement Strategy 2015 for public comment.

The full document is available on the Department of Higher Education and Training website: www.dhet.gov.za and National Artisan Development website: <http://nadsc.dhet.gov.za>. All interested institutions, persons and organisations are invited to comment on the Draft Strategy. Comments should be submitted to Mr. Fumani Mboweni via email at Mboweni.F@dhet.gov.za not later than fifteen (15) days after the publication of this gazette.

**Dr BE Nzimande, MP****Minister of Higher Education And Training****Date: 03/07/2015**

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1. Executive Summary

1.1. The “New” 7 Steps

The White Paper for Post-School Education and Training: Building an Expanded, Effective and Integrated Post-school System approved by Cabinet on 20 November 2013 and released by the Minister of Higher Education and Training on 15 January 2014 includes the following direct reference to national artisan development:

In areas of work such as the artisan trades, apprenticeships have traditionally been the pathway to qualifications; however, the apprenticeship system has been allowed to deteriorate since the mid-1980s, resulting in a shortage of mid-level skills in the engineering and construction fields. Re-establishing a good artisan training system is an urgent priority; the current target is for the country to produce 30 000 artisans a year by 2030.

In support of the development of the new artisan system, the Medium Term Strategic Framework (MTSF) 2014 to 2020 requires that a strategy for the improvement of trade test pass rates be developed for implementation as from 1 April 2015. This improvement is required to reach 65% by 2020 from a baseline of 45%. The improvement of the trade test pass rates should not affect the quality of the artisans the artisan system produces; it should in fact improve it. The **Trade Test Pass Rate and Quality Improvement Strategy** comes out of this requirement of the MTSF 2014-2020. The strategy looks at all of the factors in the artisan system which together have an aggregate effect on the pass rates and the quality of artisans produced. The 7 Steps framework to becoming a qualified artisan has been used to structure the artisan development system and therefore this strategy builds on that framework and continues to implement the 7 Step framework with lessons learnt over the last four (4) years. The “Current” 7 steps is shown in Figure 1 below with the concerns that have developed over the last four years listed against each step.

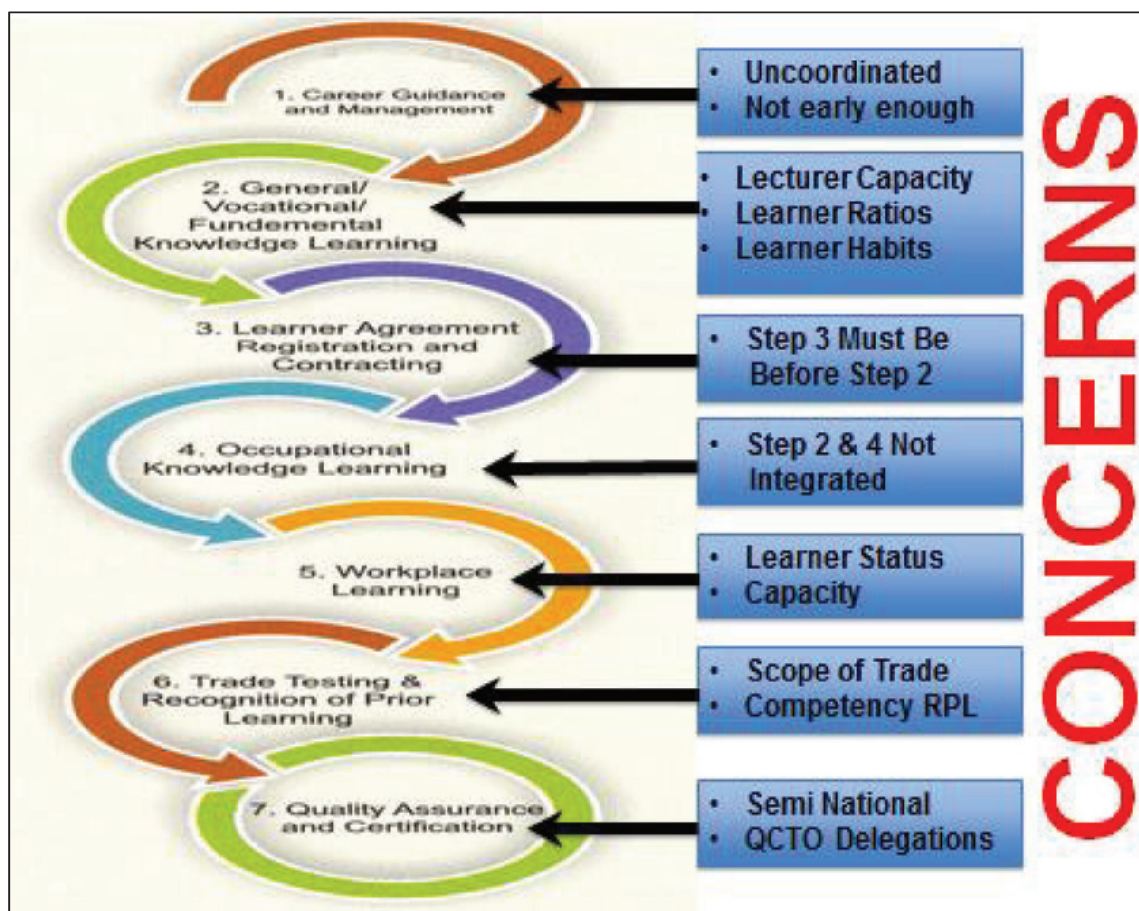


Figure 1 – The Current 7 Steps and related concerns per Step

The Expenditure and Performance Review (EPR) conducted by National Treasury in 2014 looked closely into the current seven steps. Recommendations were made through the EPR report that there was a need to realign the 7 Steps in order to make the artisan development process more efficient. The proposed changes which should enhance the 7 steps were as follows:

- Swapping of steps 2 and 3
- Integration of steps 4 and 5

The apprenticeship system of the 80's and before then was different from the current system in operation today. The current 7 steps in the above diagram (Figure 1) is a result of these changes that happened in the 80's. It was a requirement that an apprentice has a formal workplace contract before they could go to College for their knowledge component. This meant that step 3 happened before step 4 which guaranteed that an apprentice would not have challenges in accessing their required workplace learning. This change (step 3 and 2) would also make the funding of apprentices easier and more meaningful as they would all have a workplace component. The EPR concluded that on average the cost of training an artisan is

R400 000. The cost element comprises the theoretical and workplace training. The changes with steps 3 and 2 would allow for the combination of TVET College funding norms and the Generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy. This would ensure that apprentices are funded for their full learning component (knowledge, practical and workplace). This also places an obligation on the DHET and SETAs to ensure that more employers open up their workplaces in order to accommodate apprentices.

Figure 2 highlights the realigned 7 Steps. In the new 7 steps the swapping of steps 3 and 2 around gives way to the (re) introduction of a dual system apprenticeship in South Africa. The integration of steps 4 and 5 as per the new 7 Steps means that apprentices will spend time in the College doing their knowledge and practical component. They would then go to the workplace to apply the knowledge and practical learnings to real life production environments. The new A21 occupational qualifications require that learners complete their knowledge, practical and workplace component as part of a dual system approach. The sequencing of the apprenticeship components will be determined in the NTCS development processes by the curriculum development occupational teams.

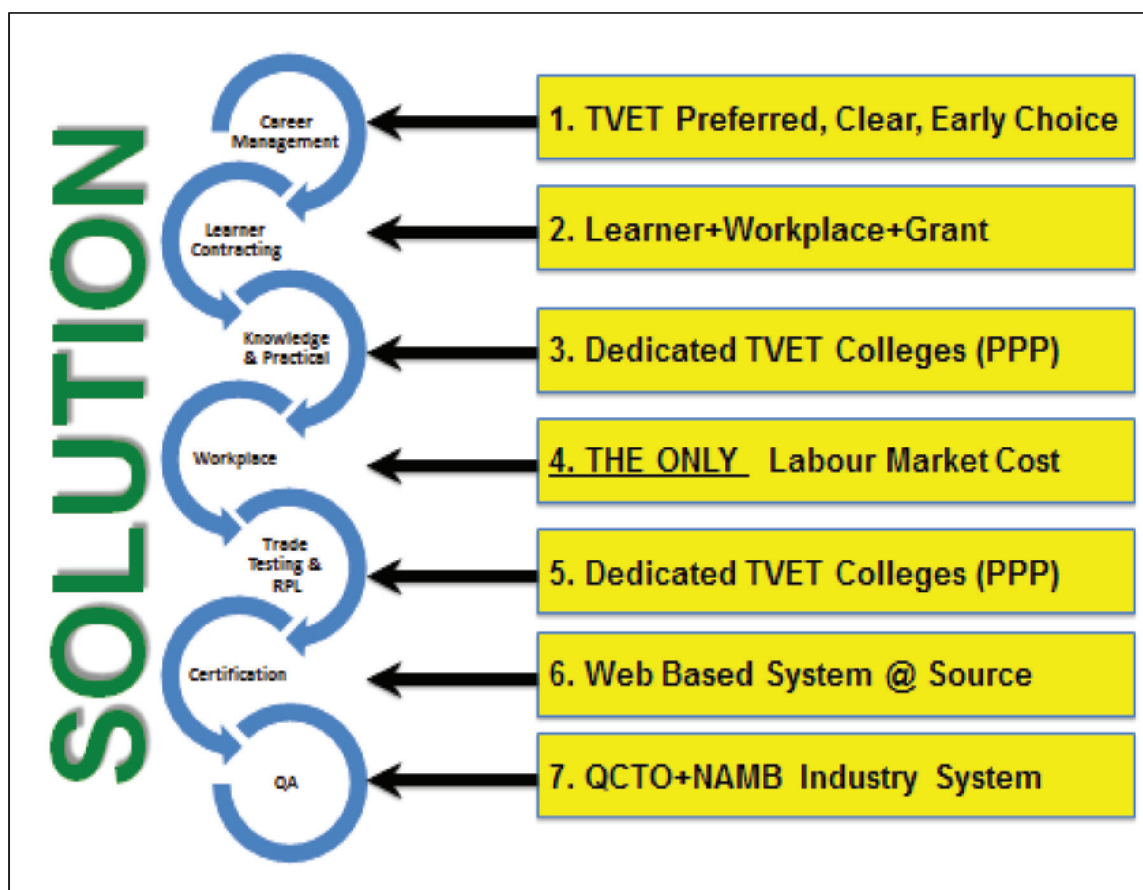


Figure 2 – The New 7 Steps

Recommendations based on the new 7 Step System emerge as:

1.1.1. Step 1: Career Management

Career Guidance needs to happen at an early age. It is ideal that learners from as early as grade 7 are given career guidance advice. The advice given must be aligned to the White Paper directive of ensuring that more learners access vocational programmes at TVET Colleges. Clearly defined pathways need to be communicated for learners to enter apprenticeships at the correct stage(s) and take the best/shortest routes to complete their apprenticeships.

Minimum requirements need to be developed with possible aptitude and attitude testing needed before accepted apprentices enter programmes. This will ensure that the right learners enter programmes. The recruitment and selection tool will be developed in this regard.

1.1.2. Step 2: Learner Contracting

Learner contracting should happen before a learner goes for theoretical learning. This approach will guarantee that an apprenticeship is made up of all the components (knowledge, practical and workplace) when apprentices start their training. Apprentices will not have to struggle, after their knowledge and practical learning at a TVET College, to find a workplace. The workplace will be there from the beginning.

The funding of learners throughout their apprenticeship period will result in funding being available from theory to workplace learning completion. This change requires the DHET to reconsider the funding model for apprenticeships. The combination of norms and standards funding is a solution to ensuring that apprentices are funded throughout their training.

1.1.3. Step 3: Knowledge and Practical

The knowledge and practical learning taking place at SDP's, will only happen once an apprentice has been contracted to an employer as per step 2. This will ensure that funding is available from inception of the knowledge learning for learners to the completion of their workplace learning component.

A major change in the occupational qualifications is the removal of exams throughout the knowledge and practical delivery phases of the apprenticeship. The trade test will be the only external assessment conducted with formative assessments internally conducted throughout the knowledge and practical delivery by the SDP's. Minimum assessment guidelines taking into account COMET principles will be developed with a peer review mechanism quality assuring the internal assessments.

1.1.4. Step 4: Workplace

The occupational qualifications being developed have a dual system approach to the training of apprentices as an integral part. The dual system of apprenticeship training requires that learners spend some time acquiring their knowledge and practical training at a SDP thereafter immediately accessing a workplace to apply their knowledge and practical training to real life production environments. New dual system based apprenticeship programmes for artisans are already being developed and need to be accelerated.

It is therefore important that steps two, three and four happen in the “New” 7 Steps order for the dual system to be successful. The DHET in partnership with SETAs and all stakeholders needs to put more effort into ensuring that every learner who meets the entry requirements for apprenticeships is linked to a workplace per the “New” 7 Steps.

1.1.5. Step 5: Trade Testing and Artisan Recognition of Prior Learning

The development and implementation of a national web-based trade testing system will assist the DHET in managing the risks associated with trade testing. The web-based system will randomly select tasks for a trade test. This should eradicate the current fraud experienced in the system. It will also contribute to the improvement of quality as apprentices will need to be effectively and holistically trained to pass the trade test.

The national web-based system will be used as a mechanism for the calculation of national trade test pass rates by trade, geography, race, gender, etc. The system will also collect national data that will ensure that the DHET is able to come with correct interventions where challenges might exist as highlighted by trade test results. This new system also has the new and emerging competency based artisan recognition of prior learning system built into it that will give many people in South Africa an opportunity to be recognised for their artisan skills

1.1.6. Step 6: Certification

The successful completion of a trade test will result in the recommendation by NAMB of that candidate to be certificated by the QCTO. An ideal feature of the national web-based trade testing system could be its ability to print certificates at source after QCTO approval of the candidates’ recommendation for certification by NAMB. This process could alleviate the certification backlog challenges that sometime occur in the system. However the certification process will be made even more efficient once NAMB is absorbed into QCTO as a chamber or separate sections as is required by the White Paper.

1.1.7. Step 7: Quality Assurance

The QCTO is responsible for the quality assurance of the occupational trades. This includes the occupational trade curricula developed and those in the development pipeline. The DHET does however need to quality assure the actual knowledge, practical, workplace delivery and trade testing components. These will be done through the creation of knowledge, practical, workplace delivery regional development and support quality assurance components. The quality assurance of trade testing will happen through the moderation of trade testing by NAMB registered moderators as part of NAMB's SLA agreement with TTC's. However this quality assurance process will be made even more efficient once NAMB is absorbed into QCTO as a chamber or separate sections as is required by the White Paper.

1.2. Trade Test Pass Rate and Quality Improvement Strategy Conference Focus Areas

1.2.1. Conference Background

The MTSF 2014-2020 has set a target for the National Artisan Development Chief Directorate to develop a trade test improvement strategy for implementation by 1 April 2015. The current national baseline trade test pass rate is 45%. This means that of all the candidates who are being trade tested only 45% pass their trade tests. This highlights a very low return on investment for the artisan development sector considering that billions of rands are committed to ensure that apprentices are funded throughout their apprenticeship training.

It must however be noted that the baseline that is used consists of trade test pass rates for Indlela only. Therefore taking this into account, the assertion that the current pass rate is 45% is not correct due to the following factors:

- Only the Indlela pass rate is taken into account in the baseline;
- a large portion of Indlela applications and trade test candidates are walk in's who would qualify for ARPL (previous S28) and
- private trade and Public TVET College trade test populations and results not taken into account.

In light of the requirements of the MTSF Sub outcome 4 targets, stating that trade test pass rates must reach 65% by 2020, as listed in the below extract of the MTSF 2014 to 2020, the NAD Chief Directorate held a conference on the 8 and 9 December 2014. The Trade Test Pass Rate and Quality Improvement Conference's objective was to deliberate on the best ways to improve the trade test pass rate and the quality of the artisan coming out at the end of the learning process. These deliberations would guide the development of a trade test and quality improvement strategy that will be approved by the Minister of Higher Education and Training for implementation from

1 April 2015 in support of Outcome 5 - Sub Outcome 4 of National Outcomes of Government as an integral part of the Medium Strategic Framework 2014 – 2020.

Outcome 5: A skilled and capable workforce to support an inclusive growth path
Sub-Outcome 4: Increase access to occupationally-directed programmes in needed areas and thereby expand the availability of intermediate level skills with a special focus on artisan skills:

The South African post-school education and training system suffers from negative reputation problems which are compounded by limited post-labour market prospects for graduates from both public TVET Colleges as well as universities. This is partly due to a weak 'systemic' relationship between the state, the education and training provider system and the main economic actors, the employers. Technical and vocational education and training in particular, which has a strong workplace learning component, requires partnership arrangements between government (various government departments), education institutions, employer bodies, trade unions, industry and Sector Education and Training Authorities (SETAs). This partnership needs to be properly regulated to serve the national skills needs rather than the needs of a few employers. Business already contributes a significant amount of money through the skills development levy, which provides a basis for a policy discussion on an agreed upon partnership to strengthen workplace-based training and experiential opportunities.

Sub-Outcome 4: Increase access to occupationally-directed programmes in needed areas and thereby expand the availability of intermediate level skills with a special focus on artisan skills:				
Action	Minister	Indicator	Baseline	Targets
Develop strategy for improving trade test pass rates (including INDLELA)	DHET	National artisan learners trade test pass percentage (including INDLELA)	45% pass rate	Strategy to improve pass rate finalised and approved for implementation from 1 April 2015
				65% pass rate
Increase the number of qualified artisans	DHET	New artisans qualified	18 110 artisans qualified	19 000 Artisan candidates found competent nationally by 31 March 2015
				24 000 artisans qualified per annum by 31 March 2020

The methodology applied at the conference was a survey and commission deliberations on where an online registration process included the completion of a survey by conference participants as part of the registration process. The delegates were grouped into four groups:

- State (Government departments, SETAs and SOC's);
- Private Sectors (Private SDP's and TTC's);
- Public TVET Colleges; and
- Organised Labour

These groups form the basis of the Chief Directorates consultation process as they comprise members of the artisan development consultative forums made up of various stakeholders. In light of the fact that the conference was about improving trade test pass rates, only technically astute stakeholder representatives with artisan development experience were invited to the conference.

The merSETA's Strategy & Research Division in collaboration with Bremen University, Germany has been leading the piloting of the Competence Measurement in Education and Training (COMET) for trades in South Africa. The programme is based on a large scale competence diagnostics system (COMET) that has been implemented in artisan development processes in South Africa. The findings from the COMET pilot shared with the delegates will be incorporated into the strategy to ensure the development of a competency based skills development arena.

1.2.2. Conference Structure

The submission of the survey questionnaire was critical in the theme of the conference as it gave the NAD CD the consolidated views of the different stakeholder groups. The survey was planned for discussion in the stakeholder commissions. The first day of the conference was the presentation of the COMET results and learnings. These findings from the different pilots and company application(s) of COMET based training would be used as a catalyst to prove the thought process of the delegates in relation to their registration survey inputs.

The commissions held on the second day would discuss the findings of the registration surveys. The commissions would ask the delegates if they still believed that their points of view as submitted through the registration survey were still the same. A commission result would then be compared to the survey results for each criteria and impact area surveyed. The consolidated commission view would give direction to the immediate areas that needed attention in order to improve trade test pass rates and the quality of artisans produced.

1.2.3. Conference Deliberations

The conference identified recruitment and selection, training provision and workplace development as areas that needed immediate attention in order to achieve the objectives of improving trade tests and quality of artisans. Figure 3 compares the registration survey (blue) vs the commission deliberation results (red).

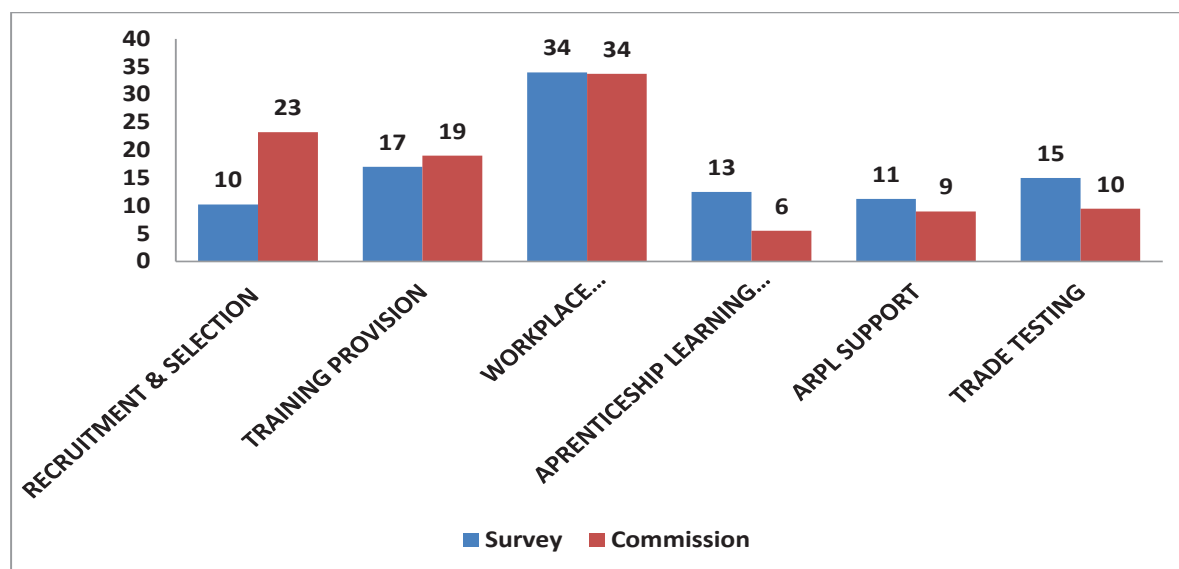


Figure 3 - Impact Area Survey vs Commission – Consolidated

Looking at the six (6) impact areas identified through the survey, workplace development was rated as the most critical impact area by both the survey and the commissions. This asserts the importance of workplaces in the development of artisans. The importance of workplaces was viewed equally though both the survey and commission. Recruitment and selection achieved the most significant change between the survey and commission results. The primary reason for this change identified throughout all commissions was that the correct recruitment and selection of apprentices affects the whole artisan development value chain. The third most significant impact area was the training provision. The little change between the survey and commission signifies that delegates viewed this impact area as very important due to the knowledge and practical training provision provided by the TVET College and practical training centres.

The other areas which are trade testing, ARPL support and apprenticeship learning are all equally important and will also be looked at as part of the development of the strategy.

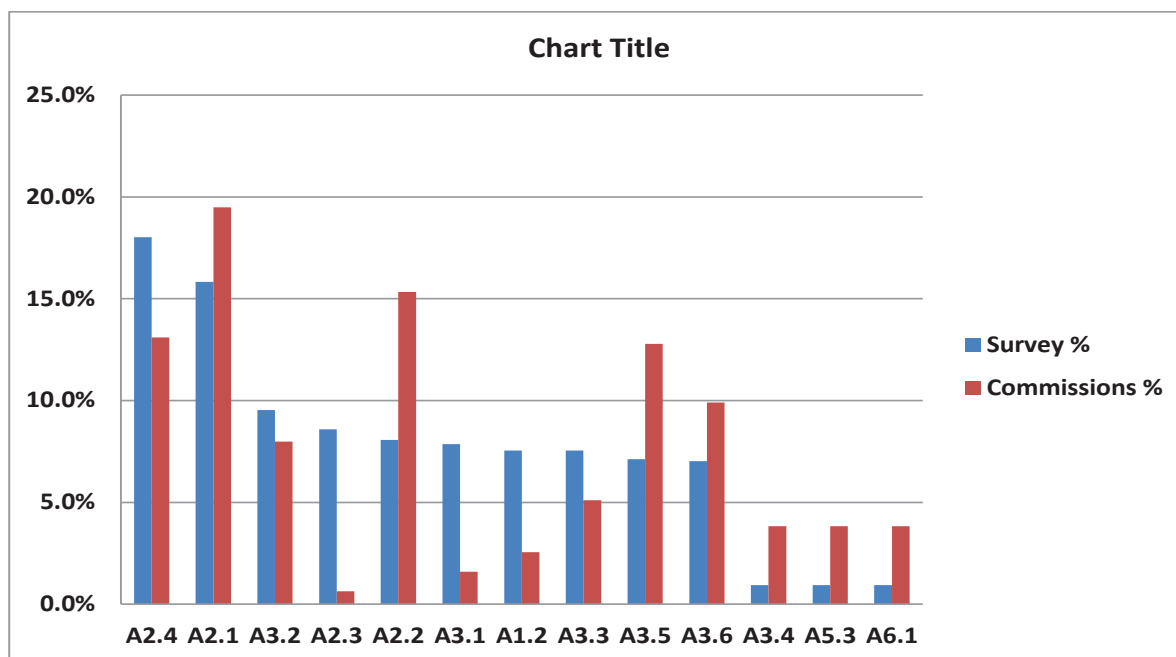


Figure 4 - Criteria Survey vs Commission – Consolidated

Criteria are individual factors that when applied will have some impact on the artisan development system. The above criteria in figure 4 are the ones identified through the survey and commissions as potentially being significant. They are identified as follows:

A1.2: Minimum qualifications set on entry into apprenticeship (i.e. according to new occupational trade qualifications)

A2.1: All training Providers (Public TVET and private) must have SETA/QCTO/NAMB Programme Approval for the occupation being taught - (this includes approved courseware, practical simulation equipment suitable to the occupation, supporting practical instructors qualified through trade test and qualified technology teachers)

A2.2: Problem solving task based teaching must be maintained as an important learning component (i.e., critical cross field outcomes)

A2.3: All training providers must sign-off knowledge components and practical simulation tasks completed in the apprentice's log-book

A2.4: All Training providers must be monitored and required to correct deviations.

A3.1: All workplaces that host apprentices must have SETA/QCTO/NAMB Workplace Approval for the occupation of the apprentice being hosted - (this includes equipment for the trade and qualified artisans available to host each apprentice)

A3.2: Workplaces should seek to build training partnerships with their sectorial counterparts in an effort to expand the range of workplace exposure available to the apprentice

A3.3: Workplaces should be encouraged to support Dual System Apprenticeships in partnership with public TVET Colleges, in an effort to build work-integrated learning linkages at public colleges

A3.4: Workplaces must ensure continuous professional development of their nominated apprentice mentors

A3.5: All workplaces must sign-off each component of workplace exposure in the apprentice log-book

A3.6: Workplace appointed mentors require five years' experience as a practising artisan

A5.3: ARPL Assessors must be qualified in the trade to be assessed and registered as a trained RPL Advisor

A6.1: NAMB must implement an automated sms system that notifies the apprentice and the employer's appointed mentor/SDF of any administrative status change of the apprentice - e.g., such administrative milestones would be registration on national database, completion of a self-assessments, trade test application processed, trade test date and trade test result.

The above criteria were identified as being more significant with varying degrees of ratings amongst themselves. Please see **Annexure A** for the full survey questionnaire.

1.2.4. Conference Resolutions

The directive issued by the conference was for the NAD CD to proceed with the strategy to improve trade test pass rates with a strong focus on workplace development, recruitment and selection and training provision. There are links amongst the six identified impact areas as they cover the full value chain in the development of an artisan. The individual criteria have also been taken into account in the development of this strategy.

The below sections covering these impact areas identify solutions that need implementation to achieve the desired output of a 65% pass rate in trade testing. Further to this they aim to address the quality issues to ensure the integrity of the artisan system in developing competent artisans who will make a meaningful contribution to the economy.

1.3. Conclusion

The background and content of the recommendations highlighted above are discussed in the sections hereafter. It must be noted that the factors discussed below should not be viewed in isolation but as part of a holistic approach to rejuvenating the artisan development process in our country. The actions required drawn from the recommendations above are presented in the “New” 7 Steps process with linkages between each step.

There is much work that still lies ahead. This trade test pass rate and quality improvement strategy aims to bring some of this work together to ensure the attainment of the DHET’s objectives of producing a skilled and capable workforce. Partnerships play an integral part of this strategy as through them the artisan development system will achieve most of the objectives needed to ensure we produce 30 000 qualified quality artisans by 2030.

2. Background

The National Artisan Development Chief Directorate is responsible for driving the artisan revolution within the Skills sector of our country. The Chief Directorate analyses the environment and recommends appropriate policy interventions to remedy any blockages and deviations that may exist in the implementation of such policy. Further to this it is tasked with rejuvenating the artisan training system to ensure the optimal effectiveness of all components that make up this system.

In areas of work such as the artisan trades, apprenticeships have traditionally been the pathway to qualifications; however, the apprenticeship system has been allowed to deteriorate since the mid 1980’s., resulting in a shortage of mid-level skills in the engineering and construction fields. Re-establishing a good artisan training system is an urgent priority; the current target is for the country to produce 30 000 artisans a year by 2030.

The White Paper for Post-School Education and Training states – pg xvi

The above statement taken from the White Paper gives a policy directive as to what the NAD needs to achieve in the long term. The main directives in relation to artisan development extracted from the white paper are:

- Re-establishing a strong apprenticeship system;
- Simplifying pathways for artisan trades;
- Improving the quality of the apprenticeship system; and
- Produce 30 000 artisans by 2030

The above directives guide the overall work of the NAD. It is therefore the work of NAD to plan, develop and implement strategies that will give effect to the listed policy directives coming from the white paper. The white paper recognises the importance of linkages within the different role players in the post-school education system. Closer ties are needed between the DHET, SDPs, employers and organised labour. Each of these stakeholder groups plays an important role in the Post-School system representing different value chain components and views.

As much as we look at improving factors such as throughput, trade test pass rates, quality of provision and ultimately the quality of artisans produced by the system, we need to ensure that the artisan training system is accessible to everyone. The DHET needs to work much more closely with all employers to ensure the development of capacity to take on apprentices. This developmental work with employers will ensure that more and more learners have access to workplaces especially where it is a requirement of their qualifications as is the case with artisans.

Learning opportunities need to be opened up for “those not in employment, education and training”. A process needs to be developed to give this cohort access to second-chance opportunities. The NAD has been piloting the GTPP which is a foundation programme aimed at bridging the gap between this group and the requirements of employers in order to grant them access to apprenticeship opportunities.

2.1. HRDC AD TTT

The HRDC established an AD TTT on two occasions to look at blockages within the artisan development system and recommend solutions to these identified challenges. The AD TTT identified four blockages within the artisan development system with solutions.

2.1.1. Detailed Accurate Data

The first blockage identified by the AD TTT is the lack of “detailed, accurate, current data for artisan trade prioritisation, workplaces and placement, scientific target setting and monitoring and evaluation”. The AD TTT discovered that there was an acute lack of accurate data in the artisan development system. Data related to the number of apprentices being trained, how many apprentices are passing trade tests nationally, how many qualified artisans there are in the country, where they are, what they do, their race, their gender and whether they are involved in the field in which they qualified.

This lack of data hinders the planning process where artisans are concerned. In order to come with the correct interventions, there is a need for accurate data. Accurate data will inform the government as to the type of interventions required and where they are

required. The availability of accurate data allows the DHET to come with scientific solutions to existing challenges.

The AD TTT tasked the NAD Chief Directorate with the development and maintenance of a single national database of artisans. This will enable the NAD and all other planning bodies involved in artisan development to have national accurate data related to artisans. The data can be utilised for planning and monitoring purposes. This will give live feedback as to the targets still needed to be achieved and give guidance where we have succeeded or faltered.

The NADSC based in Kwa-Thema will be a central co-ordination point in the collection of data and maintenance of the artisan database. The NADSC is a call centre converted into a centre that collects and maintains artisan data. SETAs will from April 2013 furnish the NADSC with monthly data for registrations and completions to be captured on the artisan database.

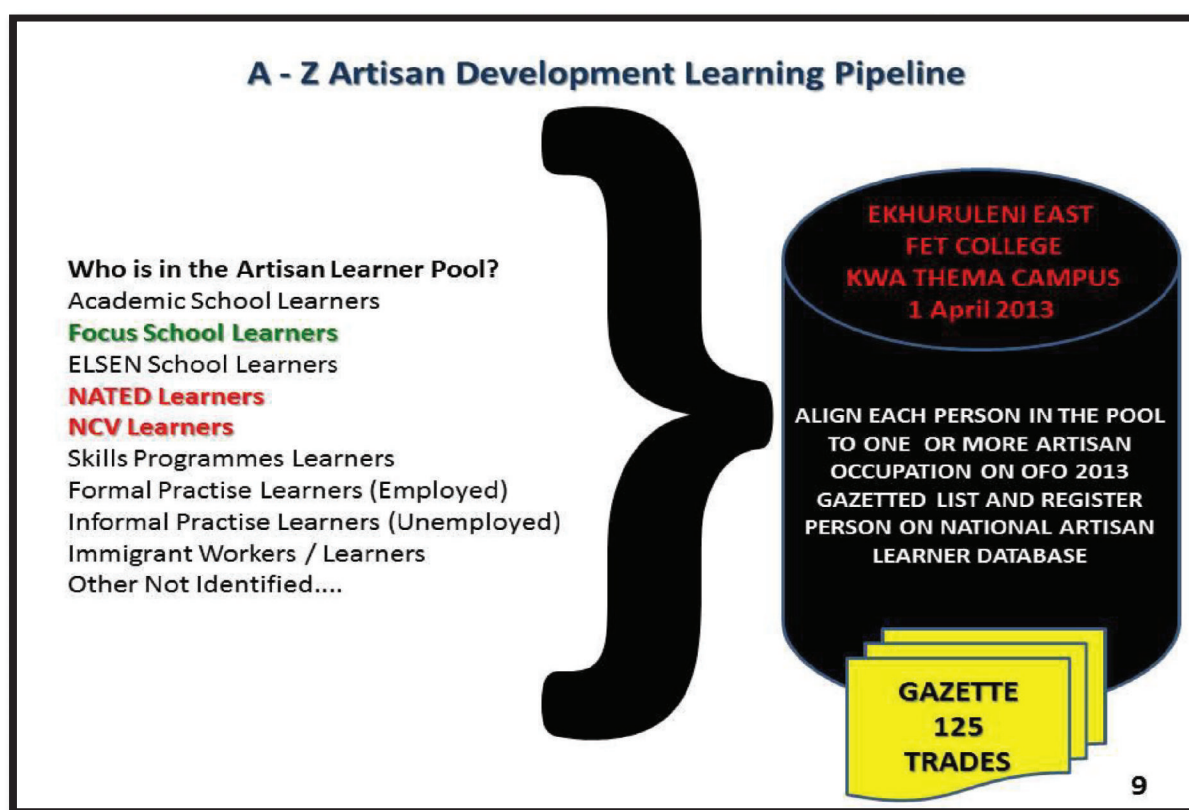


Figure 5 – Artisan Apprentice Pipeline

The NADSC was established as a one-stop shop Artisan Data management Centre. The main focus of the NADSC is to manage the National Artisan Data and Report on all national artisan data statistics. The work done at the NADSC also includes:

- Collecting , collating , validating and reporting Artisan data from all 16 SETAs and Indlela, for scientific target setting, monitoring and reporting:
 - implementing data collection and validating Policy to govern this process;
- co-ordinating placement of TVET engineering learners in accredited workplaces:
 - working with all TVET Colleges through their (SSS) Student Support Services to assist in placing TVET engineering Learners;
- monitoring learner progress from registration to trade testing and post trade test progress:
 - working with registration for trade test processes at INDLELA to monitor candidates who pass trade tests, so as to see if they get employment in the field they are tested on.
- recording and reporting on all artisan related data to remove the first HRDC artisan development blockage;
- reporting on a monthly/quarterly basis on all artisans registered and completing learning programs:
 - tracking and tracing artisan learners from registration, certification and employment;
- implementing a program to trace how many learners register in learning programs, and also how many actually completes it and is employed;
- matching of supply and demand of artisan learners to industry needs:
 - analysing the industry demands, through SSP so to match with learners on the database;
- operating and managing a National Artisan Database of both supply and demand
 - managing a database of learners in artisan learning programs and TVET engineering learners;
- continuing to process accessing industry demand data through our funding Policy (Step 2 funding Policy);
- the NADSC manages vast lists of databases to monitor artisan development in the country. These database include:
 - database of all learners that register in any artisanal learning program in the country through SETAs and INDLELA;
 - database of all learners that complete artisanal learning in the country;
 - database of all accredited workplaces that participate in artisan development and
 - database of all (red seal) certified artisans.

All artisan data that is collected at NADSC is used as analysis data for artisan trade prioritisation, workplaces and placement, scientific target setting, monitoring and evaluation. The data analysis is used to prioritise and set national interventions for artisan development.. In order for the artisan system to be fully effective, the data collected at NADSC will have to be expanded from the current registration and completion of those in apprenticeships. Data is required on all the components that make up the artisan system.

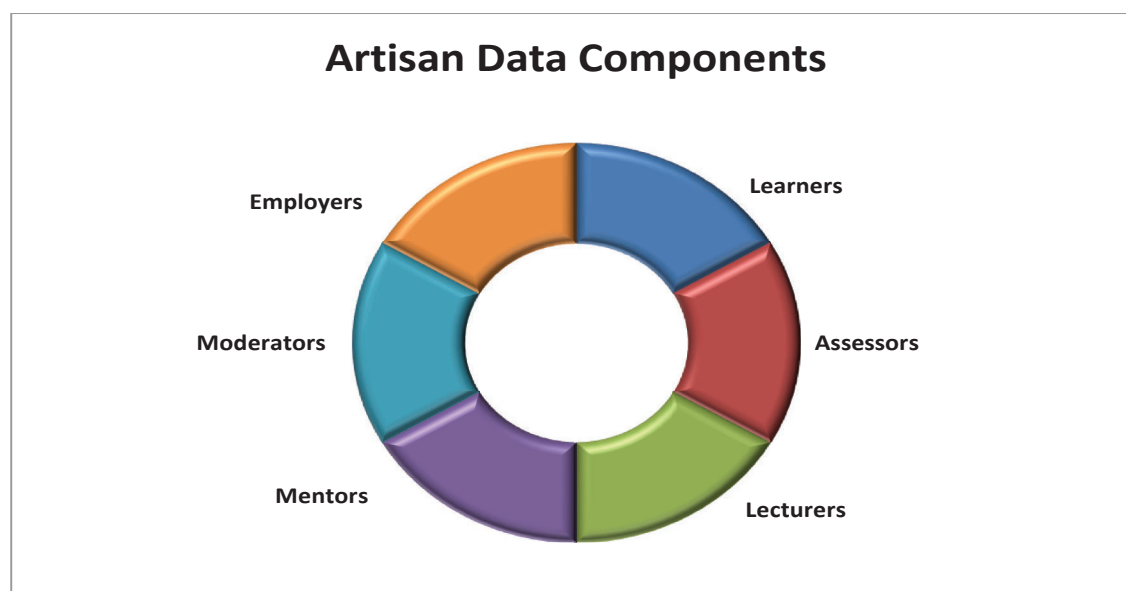


Figure 6 – NADSC Data Sets

The expansion of the collection of the different data sets will allow the development of more accurate interventions based on real, available data. This is also due to the fact that there are relationships between some of the data components. The Workplace Approval Criteria stipulates the workplace ratios required for mentors in relation to apprentices in the workplace. We can have access to the total number of employers available in the system, but if we do not know the number of mentors in the system we cannot accurately estimate the capacity to train apprentices in the country. These data sets are therefore a necessity if we are to develop a system that looks at the artisan system holistically.

2.1.2. Artisan Funding Model

The second blockage to artisan development identified by the AD TTT was the lack of “a single guaranteed funding model for all artisan trades applicable to all sectors including simple artisan learner administration and grant disbursement system”. The funding of apprentices in the workplace was uncoordinated in that there was no single agreed amount to fund an apprentice throughout their workplace training. The funding is approved, distributed and administered by SETAs. The blockage identified was that the SETAs each had different criteria and funding model for the artisan trades.

To this effect the Generic Learner Artisan National Grant Funding and Administration Policy was approved by the Minister of Higher Education and Training, Dr BE Nzimande, MP, on 4 June 2013. The policy aims to create a single funding model for the funding of artisan development for employers with regards to all artisan trades as listed on the Government Gazette 35625. This will result in the removal of the funding blockage as identified above and create benefits with regards to the development of artisans in South Africa.

The benefits that will be derived from a single funding model are as follows:

- a systematic, pragmatic logical approach to artisan development that is implemented on an on-going annual basis that replaces the current single project approach used by SETAs and NSF to fund employers;
- a systematic and on-going method of progressively determining the actual, real annual prevailing demand and capacity of national artisan development requirements as determined by the inputs of qualifying employers directly;
- a model that ensures all artisan development stakeholders in the country collaborate to drive a single national artisan development system to practically remove the current sector and employer based approach to national artisan development;
- a process that ensures that all artisan trade occupations as listed in Gazette 35625 receive equal opportunities for development subject to scarcity and prevailing demand and
- a standardised and systematic approach which will leverage on ICT to create an automated system which will allow for real time analysis of required funding and give real demand for artisanal skills requirements from employers.

The policy will go a long way to ensuring that the country can eradicate multi-blockages such as funding challenges, workplace availability challenges, data availability challenges and create a common understanding from Government, SETAs and Employers on what skills are actually required.

2.1.3. Artisan Recognition of Prior Learning

The third blockage identified by the AD TTT was the lack of “Artisan Recognition of Prior Learning (RPL) system that is focused on supporting persons who are working as support workers in the engineering field to become certificated artisans”.

The NAD Chief Directorate initiated an ARPL pilot which will be used as a guide to the implementation of a single national RPL system. The effective implementation of RPL has been a goal of education and training policy since 1994. The training and employment practices of the Apartheid era resulted in many black people not having the opportunity to gain skills that would get them certified as artisans. Those who

gained the skills never had formal training, testing and certification. With the opening up of labour market opportunities we have found ourselves with a skilled people whose informal training and education has gone unrecognised and certified. With this group of learners who have been assistants in workshops and places of trade, there lies an opportunity to get them trade tested and certified as artisans.

The goal for RPL is driven by the continuing need to redress historic inequalities in access to education and skills development, and reluctance by employers and educational institutions alike to give formal recognition to learning that has been acquired outside of formal institutions of learning or formal workplace training. Formal recognition, through proper assessment processes, would open doors of opportunity for large numbers of adults, either for career advancement or for further learning, or both.

2.1.4. Legislation in relation to apprentices in the workplace

The final blockage to be identified by the AD TTT was “The removal of blockages related to labour legislation that regulates employer and artisan learner employment relationships, conditions of service and any other element or variable that may inhibit an increase in the number of approved artisan learner workplaces taking into account collective bargaining agreements (where applicable)”. Apprentices in the workplace are considered to be employees. Employers thus have to go through the same rigorous disciplinary process for apprentices as they would their ordinary employees. Section 18 (2) of the Skills Development Act states that : *“if the learner was not in the employment of the employer party to the learnership agreement concerned when the agreement was concluded, the employer and learner must enter into a contract of employment”*. This part of legislation falls under the ambit of the DHET and would be relatively easier to amend.

200A. Presumption as to who is employee

(1) Until the contrary is proved, a person, who works for or renders services to any other person, is presumed, regardless of the form of the contract, to be an employee, if any one or more of the following factors are present:

- (a) the manner in which the person works is subject to the control or direction of another person;
- (b) the person's hours of work are subject to the control or direction of another person;
- (c) in the case of a person who works for an organisation, the person forms part of that organisation;
- (d) the person has worked for that other person for an average of at least 40 hours per month over the last three months;
- (e) the person is economically dependent on the other person for whom he or she works or renders services;
- (f) the person is provided with tools of trade or work equipment by the other person; or
- (g) the person only works for or renders services to one person.

Extract from LRA – S200A

The Labour Relations Act is the primary legislation concerning employment in the country and it is not enough to amend S18 (2) of the SDA . S200A of the LRA would also need to be amended to exclude apprentices. Apprentices would therefore enter into a contact of learning with the employer.

2.2. Cost of Training

Research commissioned by National Treasury as part of their Expenditure Performance Review project determined that the cost of training an apprentice from College to trade testing amounts to an average of R400 000. One of the factors that make training costs high is the fact that an apprentice spends time in the workplace thereby receiving a stipend throughout the duration of their apprenticeship.

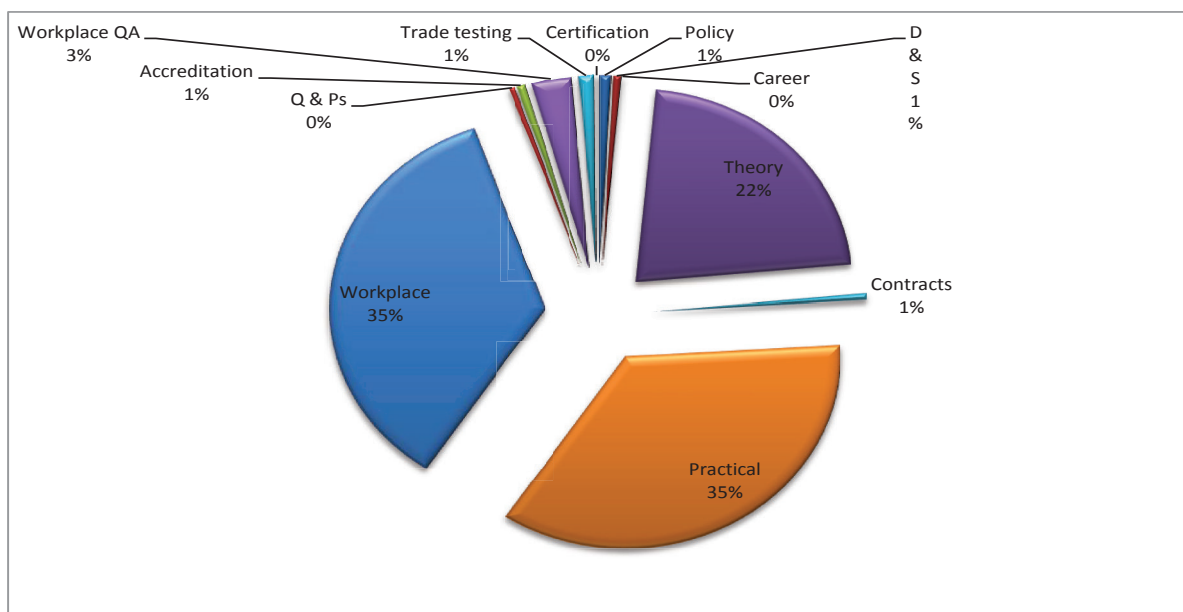


Figure 7 – Artisan System cost components

Source: EPR of the NAD Programme

Figure 7 gives a split of the cost of training an apprentice into the different cost elements. The largest cost elements are practical and workplace exposure which highlight the integral link between training an apprentice and the need for workplaces.

One of the key challenges of the artisan development system is the apprentice throughput. The EPR research commissioned by National Treasury reached a conclusion that the apprentice throughput over the last 5 years has averaged 54%.

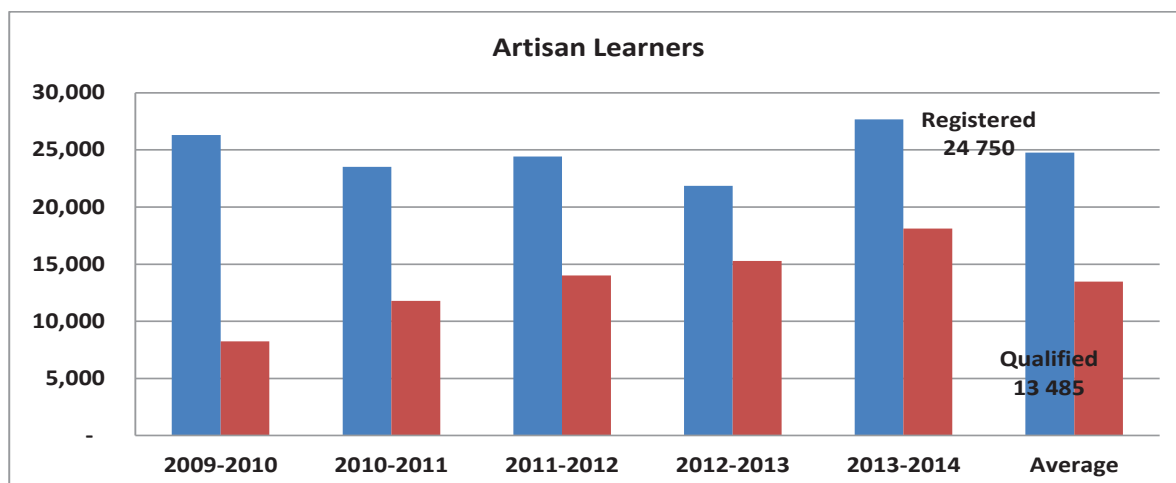


Figure 8 – Number of Learners

Source: EPR of the NAD Programme

The 54% throughput is a major challenge in the system as 46% of apprentices who enter workplace learning contracts never complete their apprenticeships. Over the period 2009 to 2014 the average cost of those who did not finish their apprenticeships was R4,5 billion per annum. This is a very considerable amount and wastage given the need that the country has for trade related skilled individuals.

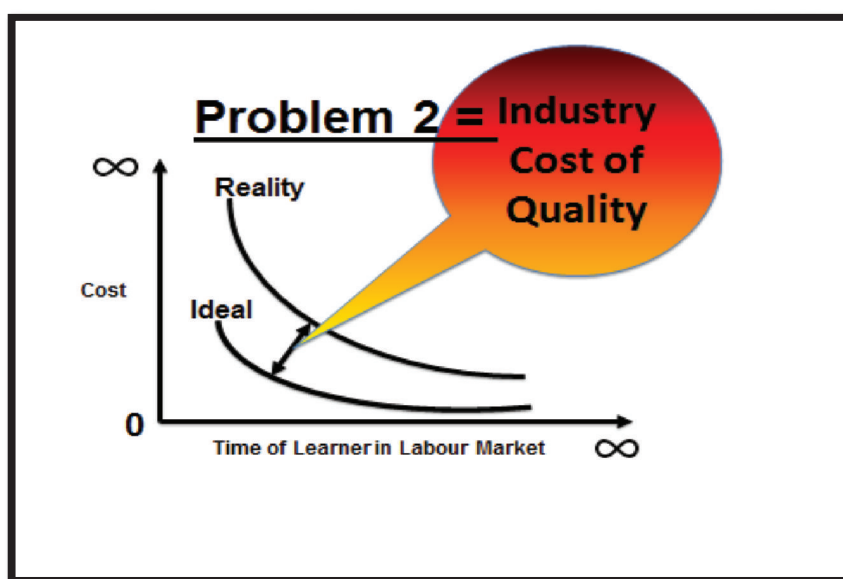


Figure 9 - Cost of Quality

In a properly functional system the R400 000 identified cost of training an apprentice would be the only associated costs. The artisan training system does however have additional related costs that are faced by employers. Due to the low throughput which is associated with low levels of quality in the school and college preparation of apprentices, some employers have taken additional measures to ensure that apprentices going into the workplace are better prepared. These additional measures

increase the average costs for training apprentices to above the R400 000 identified in the EPR Research. For example, some employers have set up their own schools which teach potential apprentices mathematics and physical science. This is done to ensure that these potential apprentices are better prepared to deal with the theoretical requirements of the trade qualifications that they will have to undertake when they enter the workplace component of their training. These additional costs are represented by the line labelled Reality in figure 9.

Our national schooling and college system should produce potential apprentices with the right level of mathematics and physical science that will enable them to make the transition into the workplace easily. This would mean that the only costs related to the training of apprentices are those within the identified R400 000 as per the EPR Research. This ideal situation is represented by the Ideal line in figure 3. The difference between the Reality and Ideal lines represents the cost of quality of in relation to our school and college system for employers. There is a great need to address this quality aspect in order to ensure that our systems produce quality potential apprentices which will add value to employers, not decrease that value.

2.3. Key Implications

This document aims to ensure that the DHET meets the requirements of the MTSF objectives in relation to trade testing. The document goes further than looking at trade testing and looks at a wide range of factors like quality, partnerships, ARPL and competency testing as part of the long term improvement in the artisan development system.

Continuous monitoring and improvement of data collection is an important function that the NADSC needs to achieve. Further to this the NADSC will need to expand the data sets to enable better planning and intervention strategies. The data also collected through the funding model in relation to training demand requires continuous improvement and monitoring. Data is very important as it gives the DHET the measuring yardstick it needs to evaluate how well it is doing against its objectives.

Employers need to derive value from the training system by taking in apprentices who are ready to learn and apply their practical skills to actual work. The proper implementation of the knowledge and practical learning delivery at high schools and TVET Colleges will ensure that employers concentrate on the workplace experience portion of the training. This will add more value through the eradication of additional costs experienced by employers. The attainment of such objectives may contribute to employers opening up their workplaces for apprenticeship training.

3. Recruitment and Selection

3.1. Career Guidance

An important area of concern to both the schools and post-school system is ensuring that all young people in the latter years of schooling (and those in early years of post-school education) receive appropriate and adequate career guidance advice

The White Paper for Post-School Education and Training states – pg 6

The first requirement in the recruitment and selection process is effective career guidance services as highlighted by the White Paper. The work of career guidance is not just the responsibility of school educators but requires the involvement of a wide variety of stakeholders including DHET, SETAs, CDWs, NGOs, employers and other beneficiaries in the learner development value chain. Effective career guidance should arouse the interest of learners and parents in various occupations. Part of the process of ensuring the attractiveness of vocational careers is the need for career guidance services that will have an impact on learners.

The DHET has come with various interventions as part of a career guidance drive to complement the work that is currently done by the DBE. The Decade of the Artisan, WSSA and NCAP are three examples of such programmes that seek to build effective career guidance systems into the Post-School sector. An exciting and innovative development is the Try a Skill Component. Try a Skill allows learners to “feel and touch” what a particular occupation entails.



Figure 10 – Try a skill at WSSA

The main difference between traditional career guidance and Try a Skill is the participation of the learner in the performance of tasks related to that skill instead of watching a video or reading up about that occupation. The Try a Skill gives learners

actual experience of what an electrician will do as part of their job. The real life experience will give the learner the real life opportunity to see if they identify or are interested in a particular occupation.

The traditional idea that career guidance is something that should happen at high school level is also something that needs to be confronted. If we look at the modern child and the level of information they process from an early age it is therefore advisable that the world of careers be opened up to them from an early age. School learners from grade 7 level will be invited to attend WSSA Competitions. The reason for this is to expose the learners as early as grade 7 to the different trades with special emphasis on the Try a Skill component. This will give the learner enough time to process the career information given and identify an occupation they relate to. Parents are also an important element in the effective career guidance system. The ideal career guidance system should also make it easier for parents to access career information through formations like school governing bodies.

Greater intra-departmental collaboration is also required within the DHET. Indlela and CDS should strive to work together to ensure the “appropriateness” of the NCAP system in relation to trades. It is important that we become innovative and ensure that learners will be able to find the NCAP tool useful and not difficult to use. An example could be to include an interest questionnaire which is developed in such a way that at the end of the day it will not only guide the learner as to which occupational groups they are interested in but also present a CV they can print and take with them after the whole experience. Video clips also showing the actual tasks performed in the different occupations would have a similar effect though not as effective as the Try a Skill.

In looking at The Decade of the Artisan, a concerted effort was made to train life orientation educators, TVET College career advisors and CDWs on artisan careers. This is in line with ensuring that from grade 7 onwards we are able to effect good career guidance services related to the trades. This training shows the inter-departmental success that is being achieved by the collaboration of the DHET and DBE in the training of life orientation teachers. There is however a need to expand these collaborations to include the media, school governing bodies, NGOs and community based organisations.

A concern raised in the revised Decade of the Artisan concept was that there were no post training/event intervention strategies. These strategies would need to be developed with individual schools to ensure that the life orientation educators implement what they were trained on. These strategies would also include drawing up of career guidance calendars which would include taking learners to TVET Open Weeks for apprentice recruitment purposes based on their interest in becoming artisans from grade 9 onwards. The same would be done for TVET College Career Advisors. An intra-departmental effort is required for this task which would include a monitoring and evaluation aspect.

3.2. Pathways

The EPR conducted by National Treasury noted that: **“The existing system for artisan development consists of multiple routes, a large number of which are complex and do not allow for the optimal integration of theoretical, practical and workplace knowledge and experience”**. For any learner wanting to become an artisan there is no clearly defined route to becoming an artisan. Pathways need to be clearly defined and communicated in order for those who want to enter the artisanal route to know what pathways are available for them to reach their goal.

The entire gamut of vocational programmes and qualifications will therefore be reviewed and rationalised into a coherent and simple framework that fits easily into the NQF and makes learning pathways clear to school-leavers and employers.....Given all these developments we find ourselves today with five vocational qualification types – Nated (or N) programmes; NCV programmes; occupational programmes; Higher Certificates; and the NSC with Technical Subjects. The review should ideally involve both DHET and the Department of Basic Education, as both offer vocational programmes.

The White Paper for Post-School Education and Training states – pg 14 and 15

In addition to the EPR and White Paper views on pathways, the OECD Reviews of Vocational Education and Training: A Skills Beyond School Review of South Africa commissioned by the Minister of Higher Education and Training and released at the National TVET Conference in November 2014 indicates on Pages 38 and 45.

“There are several vocational routes at upper secondary level

- 1. NC(V) programmes**
- 2. N or NATED programmes**
- 3. Technical Schools, providing vocational-type programmes from grade 8 leading to a national senior certificate with a vocational element**
- 4. Learnerships and apprenticeships**
- 5. Occupational Qualifications involving assessments of different unit standards of competences.**

Recommendation: Simplify the System

Building on the proposals set out in White Paper:

- **Upper secondary vocational programmes should be merged into two main tracks – a school based track and a work based track**
- **To meet the needs of adult learners, develop a second chance vocational programme and ensure flexible provision**

With clearly defined pathways, those with an interest in becoming artisans can begin their journey after completing grade 9. In order to realise the benefits of this process much work in relation to artisan career guidance needs to be done. This can result in a great saving in the national fiscus as learners do not have to finish matric (NQF 4) and then go back and begin their vocational studies (NQF 2) in order to access apprenticeships.

Passing a trade test cannot be the ultimate achievement for an artisan. Part of the clearly defined pathways has to be the articulation into universities and other higher level qualifications. The new occupational qualifications should address the articulation challenge within the various sub-frameworks. It is possible that these will be more common for some trades than others, but career progression should also be seen in this light. Closer relationships need to be built with universities to ensure there is alignment in the VCET education, employment experience and university offerings for those who have passed their trade tests.

3.3. Attractiveness of Apprenticeships

In South Africa there is limited attractiveness of apprenticeships and artisan careers. The DHET has embarked on a programme to increase awareness of vocational education and career opportunities with special focus on artisanal trades. The ILO report titled Towards a Model Apprenticeship Framework: A comparative analysis of national apprenticeship systems infers that a strong culture in the occupational group/industries makes apprenticeships in those groups/industries more attractive.

A question that we then need to ask is if there are strong cultural occupational groups in the trades today. The fact that artisanal trades are not seen as attractive career options in itself gives much evidence to the potential lack of strong cultures within the trades today. The DHET programmes through the Decade of the Artisan and World Skills South Africa have mainly focused on engagements with employers to open up their workplaces and for learners to consider artisanal trades as viable career choices.

If we follow the thinking of the ILO report then the multiple occupational groups and industries need to rejuvenate the strong cultures within their groups that once existed. Communication of these strong cultures would have to be done by these employer groupings in order to increase the attractiveness of their occupations to youngsters especially. The professionalisation of the artisan profession as required through setting up of a professional body (SDA S26C) will add much drive to the needed artisan cultural revolution.

World Skills South Africa is one of the interventions by which our country will begin to de-stigmatise technical, vocational education and related careers. Much is required to change the perceptions of our people in relation to vocational and technical careers. The old notion that those who choose vocational and technical careers are not for academically gifted individuals is one we must vehemently fight against. The artisan

of today is required to deal with very complex theoretical and practical challenges requiring the application of a variety of theories and problem solving skills. Skills such as electronics, mechatronics, and motor mechanics require the application of a variety of disciplines in order to succeed in those career fields.

A long term view should be taken to ensure that the best youngsters get into apprenticeship programmes.

There is a move by the DHET to differentiate the TVET Colleges through specialisation. What this means is that the industry in a particular region should dictate the TVET College offerings in that area. This would make TVET Colleges more focused and relevant within their economic geographical areas. This direction, coupled with employer support could greatly contribute to the occupational culture required to improve the attractiveness of artisanal trades.

3.4. The Selection and Recruitment Tool

The Deputy Minister of the DHET has through the Decade of the Artisan launched the TVET College Open Week. This TVET College Open Week is an opportunity to increase awareness of TVET College offerings and also change the negative perception towards TVET Colleges. This Open Week thus brings an opportunity for employers to recruit learners into apprenticeship programmes.

The recruitment and selection of potential apprentices must be aligned to other programmes that the DHET is embarking on. The new 7 steps as defined in point 7 proposes a fundamental reversal in the selection and recruitment process. There is a need to swap the current step 2 (General/Vocational/Fundamental Knowledge Learning) and Step 3 (Learner Agreement Registration and Contracting). The reason is explained in detail in point 7. With this shift, employers would have to contract learners before they can go for their theoretical learning at a TVET College.

With clearly defined pathways, learners would know when they can enter apprenticeships and what their career trajectory is. Aligning these changes in the 7 step process defined above and the clearly defined pathways would make it easier for employers to recruit learners from grade 9 to matric onto apprenticeships. The work that the DHET (Indlela and CDS) needs to do is to prescribe minimum standards for the development of a recruitment and selection tool (inclusive of an interest questionnaire). Alternatively the DHET needs to develop the selection and recruitment tool in collaboration with employers which will be mandatory in the selection and recruitment of learners onto apprenticeships. This tool can be made available free of charge to all employers wishing to recruit apprentices.

The collaboration with employers will look at current recruitment and selection processes to ascertain their weaknesses and strengths in order to take the best practices currently applied by employers onto the tool. The developed tool or minimum requirements will then be incorporated into employers' selection policies

and NCAP. The training of artisan ambassadors and post intervention strategies will also include the application of the tool in career guidance classes and ARPL applications.

During the TVET Open week employers can use the DHET developed recruitment and selection tool or their own developed tool which meets minimum DHET requirements to recruitment suitable candidates onto their apprenticeship programmes. Employers may use the tool at various times which fall outside the TVET Open week programme, but the Open Week presents a unique opportunity due to the envisaged number of learners who may visit the TVET Colleges throughout the country. Other opportunities like the Decade of the Artisan advocacy programmes and WSSA programmes may also be used as recruitment drives.

3.5. Key Implications

Effective career guidance is required to make learners aware of the career opportunities related to artisan trades. Learners must be exposed to artisan trades as careers of choice from as early as grade 7. More work must be done with DBE, CDS and schools to develop effective career guidance programmes especially in relation to artisan trades.

The Try a Skill career guidance approach must be the preferred mode of engagement with learners at DoA, WSSA and TVET Open week programmes. Employers through their associations need to come to the party by vigorously promoting careers in their industries and the cultural connections within those industries.

The correct recruitment and selection processes will ensure that appropriate learners enter into apprenticeships. This process affects all aspects of the artisan value chain therefore it is important that it is given a lot of attention. A tool to test the interest, attitude and aptitude of learners is a necessity if the correct learners are to enter the artisan training system.

4. Training Provision

4.1. Curriculum

The value of a curriculum is based on its ability to be relevant, current and responsive to the skills needs of industries. This is the basis upon which a curriculum development, implementation and monitoring process should be based. The curriculum developed creates the foundation through which apprentices gain their theory and lecturers get to share their accumulated knowledge.

Employers need to be central in the development of curriculum as the teaching in the TVET Colleges is to their benefit through the development of knowledgeable apprentices in touch with current developments and trends in the specific trades.

The collapse of the apprentice system led to the proliferation of various pathways to becoming an artisan. Part of this collapse was the decentralisation of curriculum development with multiple knowledge pathways existing for a single trade. The DHET in partnership with the QCTO has embarked on a process to rejuvenate and reintroduce the apprentice system as per the White Paper for Post-school Education and Training recommendations.

The below figure 6 illustrates the curriculum development process for the new A21 Occupational Qualification Apprenticeship based on the QCTO curriculum framework which will replace the engineering N and NCV programme offerings for artisan related programmes. This diagram represents the electrician trade occupation development process. A detailed diagram explaining the development programme is attached as **Annexure B**.

The A21 apprenticeship will also replace the multiple plethora of learnership courses currently available. As we move forward the only route to becoming an artisan will be through A21 occupational based apprenticeship. The NTCC depicted in the figure above is the detailed “syllabus” development of the new occupational qualifications. The NTCC will give detail as to the content to be taught and tested on at the TVET Colleges.

The development of new curriculum is also linked to the re-defining of artisan pathways. Work is currently underway to ensure that all technical curricula between school and post- school institutions are aligned. What this means is that what learners are taught at technical high schools and TVET Colleges is the same. The theory part will be the same with practical provision being more trade concentrated at the TVET College level. Learners with a technical matric will then only focus on practical provision at TVET level as part of their apprenticeship as the theoretical knowledge would have been done at the technical high school.

Artisan Trade Occupational Qualification Implementation Milestone Plan: Electrician

OFO Code	Trade Title			TT Sites		
671101	Electrician			No + GPS		
Start Date	DQP - AQP			Trade Test	RPL Toolkit	
	1 July 2013			Date	Date	
		NQF Registration	OQ ID			
		7 Nov 2013	91761			
				NTCC		
				Date		
		MES			Learner Materials	Lecturer/Trainer Support
		Date			Date	Date
		NCAP			TVE T Sites (K + P)	Work Places (Mentors)
		Date			No + GPS	No + GPS
				END Date		

Figure 11 - QCTO Curriculum Development Process

Technology is constantly changing which then has an effect on the current technologies used in the workplaces. This constant change in technologies and production methods has the potential to render the curriculum taught at the TVET Colleges less relevant. It is therefore important that curriculum is reviewed constantly to ensure its alignment to the workplace environment. The QCTO Policy on the review of curriculum states that curriculum should be reviewed every 5 years. One way of ensuring that curriculum is constantly relevant is through workplace mentors teaching in the TVET Colleges at least once a quarter and lecturers having regular workplace exposure training. This would ensure a constant sharing of new knowledge related to the trades.

4.2. Throughput

The quality of training provision has an effect on the SDP throughput. The aptitude and attitude of learners also has an effect on the SDP throughput. It therefore follows that the improvement of throughput which will lead to more learners with a need to access apprenticeships is not a simple matter to resolve. The DHET will need to come with interventions within the TVET College sector that will improve training provision. These are measures within the DHET's control and direction.

Engagements with employers in the various artisan forums led to the development of the Generic Trade Preparation Programme (GTPP). Employers are now moving to a position where they insist on apprenticeship candidates having a minimum of 50% in technical mathematics and science. The GTPP is a foundation programme developed with the following objectives in mind:

- To offer a second chance opportunity for the NEETS group to upgrade their mathematics and science in order to access apprenticeship programmes; and
- to also offer an opportunity for those learners from school wanting to upgrade their mathematics and science marks in order to access apprenticeships.

The GTPP pilot was run with employers as the backbone offering apprenticeship programmes to learners who met the 50% plus requirements in mathematics and science. One of the main lessons from the GTPP pilot is that learner commitment to studies improves when they know their learning is linked to existing workplace learning opportunities. The access to workplace learning opportunities alters the attitude of many learners as they recognise that their hard work will lead to a tangible outcome. This lesson affirms the thinking in swapping step 3 and 2 of the current 7 steps which will require that learners going into apprenticeships (learning, practical and workplace) are linked to an employer before they can begin any theoretical learning at a SDP.

The development of a recruitment and selection tool will assist greatly in ensuring that learners with right aptitude and interest in becoming artisans enter apprenticeships. This will have a knock-on effect on the throughput for A21occupational programmes. The foundational programmes like the GTPP will ensure those who do not meet the aptitude requirements but have an interest get an opportunity to upgrade their mathematics and science before they can enter an apprenticeship.

The A21 occupational qualifications have taken a major directional shift in the assessment of learners during their apprenticeship. They have done away with exams as in the N and NCVs. They focus on internal formative assessments with the trade test being the summative assessment. The DHET is of the opinion that this new approach as part of the dual apprenticeship system will result in higher throughputs where the internal formative assessments are concerned. Learners will be able to apply their theoretical learning more quickly as they enter the workplace not too long after their theoretical and practical learning.

4.3. Lecturer Competence

Apprentices' ability to understand and master their trade will only be as good as their lecturers' understanding of that trade. It is therefore important that lecturer development be prioritised to enable them to become suitably qualified and experienced artisans themselves. It is also important that a long term view be taken as

to the minimum qualifications required for occupational qualifications of lecturers in the artisan trades. A transitional agreement should be entered into with current lecturers to ensure that they are upskilled where there is a need. This transitional agreement will be made with the long term view that by 2020 only qualified artisans can become lecturers in the A21 system. This process is similar to the mentors in the workplace proposal. The White Paper does indicate that regulations for minimum qualifications (together with suitable transitional arrangements) have been developed.

Lecturers need to be supported as much as possible to ensure that they succeed in their core business of teaching. Some of the interventions needed to ensure they keep abreast of changing technologies and production techniques are:

- Exposure to the workplace through partnerships with employers in their footprint. As the TVET Colleges move closer to specialisations (aligned to industry in their geographical footprint) workplace exposure would be very beneficial to the lecturers;
- regular regional and national workshops addressing pedagogical skills, new technologies and their application in the trades, best practice and other matters that will assist in the performance of their functions;
- TVET College partnerships with industry which may lead to donation of latest equipment. These partnerships may be directly through the College or the DHET;
- development of lecturer training programmes in partnership with universities and
- development of exchange programmes for lecturers with other overseas TVET Colleges involved in similar dual system programmes for apprentice training.

The White Paper states, “The most important indicator for the success of a college is the quality of the education offered and consequently the success of its students. For this the colleges need a well-educated and professional staff”. The professionalization of A21 lecturers should go hand in hand with the professionalisation of the artisan occupation. The DHET and its stakeholders need to move faster in the establishment of the Artisan Professional body as this will assist not only with lecturer professionalisation, but with many facets of the artisan profession. An Artisan Professional body (SDA S26C) may assist in the achievement of overall quality of artisans even after passing their trade test through the development of a CPD process for artisans.

4.4. Competency based assessment

The assessment of apprentices throughout their learning journey should not only be the practical trade related tasks to determine their competence. The A21 occupational qualifications do not have trimester exams and annual exams as with the current N and NCV programmes. The occupational qualifications will have formative

assessments throughout the theoretical and practical modules. The summative assessment will only comprise the trade test at the completion of the workplace component. The formative assessments will be done by the SDPs in-house with no external exams conducted. This presents a unique opportunity for the DHET to prepare guidelines on competency assessment levels per trade.

The South African COMET pilot project measured competence at four levels: (1) nominal competence; (2) functional competence; (3) processual competence; and (4) holistic shaping competence.

They are defined as follows:

- **Nominal competence** reflects the superficial conceptual knowledge of the field and individuals at this level can therefore not yet be seen to be competent. They are considered a 'risk group' (merSETA, 2012).
- **Functional competence** refers to basic technical knowledge learned in isolation – it is the elementary subject knowledge and skills not yet integrated and assimilated (Rauner, *et al*, 2012b). The skill of integrating knowledge to solve process related problems is therefore still very limited (merSETA, 2012).
- The third level of competence is **processual competence** which relates to the ability to interpret work tasks in terms of the relationship with work processes and workplace situations. Aspects such as 'economic viability and customer and process focus' (Rauner, *et al*, 2012b: 164), as well as communication through the 'ability to express thoughts in a clear and organized way, through verbal accounts and technical drawings' to propose solutions, are important skills at this level of competence (merSETA, 2012: 7).
- The fourth and highest level of competence is **holistic shaping competence** – the full complexity of the task is understood and 'due regard [is given] to the diverse operational and social conditions in which they are performed' (Rauner, *et al*, 2012b: 164), resulting in solutions which are uniquely different (merSETA, 2012).

The development of guidelines on competency assessment (knowledge, practical and workplace) levels per trade will need to take the above competency measurements into account. These guidelines will give lecturers guidelines as to the structure of assessments and levels of competencies tested at the different levels of an apprentice's progression. One of the key components of COMET is the ability of the candidate to think independently and innovatively. An apprentice needs to show high levels of problem solving as the task they might face at different stages might be the same, but the conditions may be different. They will need to show that they can adapt their problem solving skills to different environments. The assessment of competency guidelines will not only take the trade elements in the assessment tests, but will take a holistic approach looking at apprentices' interaction with their environment as part of the assessment.

The formative assessments in the A21 occupational qualifications will not be externally moderated due to their informal nature. To ensure consistency and upholding of the highest standards in the formative assessments, a peer review mechanism will be adopted as part of the competency guidelines to be developed. The peer review mechanism will be between SDPs (private and public) where SDPs will cross moderate the assessments tests to be held and a sample of the actual formative tests undertaken.

4.5. Key Implications

The redesigning of curriculum is a key implication of the actual training of an apprentice. The new curriculum has an effect not only on the content, but also on the way it will be delivered and the role players required for its delivery. Employers need to be constant part of the development of curriculum its content and structure. They are also key to ensuring that lecturers are kept abreast of the latest developments in their trades. The Dual System requires the commitment of the SDPs and employers.

The alignment of Technical High School and TVET College curricula is an important step in ensuring that we have very few pathways for one to enter an apprenticeship. It will also make it easier to communicate the available pathways to becoming an artisan. The correct recruitment and selection mechanisms will ensure that the majority of learners entering the system through the available pathways are able to qualify as artisans. Foundation programmes like the GTPP either as a bridging of second chance programme must be made more accessible.

5. Workplace Exposure

5.1. Apprenticeships and Workplaces

It is standard practice internationally that part of an apprenticeship will include a workplace element. Apprentices therefore need to go through an on the job learning development in order for them to apply the theoretical knowledge gained in real life work circumstances. It therefore goes without saying that without the availability of workplaces, the apprenticeship system would be non-existent.

Workplaces not only give apprentices the opportunity to integrate their theoretical knowledge with practical skills, they also offer the opportunity to learn about the workplace norms, standards and culture. This may be useful in creating a sense of identity for the apprentice with the occupational group they are involved in.

The DHET through Indlela has developed a Workplace Development Sub-Directorate. This is in line with the view that the development of workplaces that will be able to offer apprentice spots to potential apprentices is a critical component of the artisan system. There is currently a scarcity of workplaces which is further complicated by the scarcity of qualified mentors in the workplaces. The work of the

Workplace Development Sub-Directorate will focus on the establishment of a structure that will develop workplace training policies, guidelines and criteria, development of quality standards for mentors, alignment of policies to QCTO workplace curricula and incentivising of employers.

It is worth noting that the DHET needs to be more proactive in establishing relationships with employers through stakeholders. This approach needs to take into account the business needs of employers in the normal course of their operations when proposing that they take apprentices on board. A consideration of the size of business (small, medium and large) must also be taken into account in the development of this employer collaboration approach. It must be noted that the workplace approval processes will need to be streamlined to make it easier for employers to go through the accreditation process.

Workplace development resources should reside within the SETAs. A process needs to be developed by the Workplace Development Sub-Directorate which will guide the artisan system as to the feasibility of employing workplace development advisors versus utilising the existing ones within the SETA system. This work is important as it provides the resources to the coordinated workplace approval processes. The finalisation of this process will also accelerate the development of workplaces.

Much work has been carried out to harmonise artisan development policies nationally. This will ensure that a common understanding exists in the artisan development space and further allow for the correct intervention strategies to be applied by DHET in collaboration with all stakeholders.

5.2. Workplace Approval Policy, Criteria and Guidelines

5.2.1. Review of current policy

The NAMB is an AQP of the QCTO for all trades listed on Gazette 35625 dated 31 August 2012 or as amended. It was agreed between all SETAs that are involved in artisan training and the NAMB on the 5th September 2012 that a single, national standardised policy for the approval of workplaces and or sites for trade qualifications needed to be developed.

The National Standardised Artisan Learner Workplace and or Site Approval Policy was developed and signed off by the Chief Director: NAD on the 10 June 2013. This policy guides the criteria to be used for workplaces to qualify as workplace learning centres for apprenticeship training.

Extract from the National Standardised Artisan Learner Workplace and or Site Approval Policy.

The National Standardised Artisan Learner Workplace and or Site Approval Policy sets out the policy direction in relation to criteria, guidelines for apprentices' workplace exposure component of their training in respect of all trades listed in Gazette 35625. The Policy is a guide to be used by all those in the artisan system and specifically employers who wish to take on apprentices into their workplace.

The policy in its current form needs to be expanded to look at additional policy items that require consideration. These policy items are discussed in the following sections.

5.2.1.1. National Artisan Workplace Development, Support and Approval Forum (NAWDSAF)

The NAMB must establish a forum that will look at matters affecting approval of workplaces and the quality of training in those workplaces. This technical working group will be known as NAWDSAF. The role of NAWDSAF will be to ensure the coordination of workplace approval processes to ensure that all SETAs apply uniform criteria and checklists to workplace approval per trade. This will ensure that a workplace is approved once per trade and reduce the administration burden placed by multiple approval processes from SETAs.

The NAWDSAF will comprise representatives from NAMB and SETAs. This will ensure a coordinated effort in the workplace development process. NAWDSAF will be responsible for the following:

Development:

- Develop minimum requirements for workplace mentors;
- develop a database of mentors;
- workplace development advocacy programmes;
- return on investment for the employers;
- mechanism for developing existing employees;
- easily accessible advice;
- development of a database of workplaces; and
- Workplace Development Ambassador programme.

Support:

- Development of a standard log-book per trade;
- Mentor Development Programme inclusive of CPD;
- technical equipment and tools advice for the workplace;
- monitoring, evaluation and corrective action; and
- link employers with DoL health and safety training.

Approval:

- Review The National Standardised Artisan Learner Workplace and or Site Approval Policy;
- coordinate workplace approval and monitoring processes;
- develop comprehensive checklists for all trades taking into account the size of an enterprise;
- coordinate workplace checklists for existing and new qualifications; and
- ensure alignment of policy to QCTO Policy for development of workplaces.

5.2.1.2. Mentors

The National Standardised Artisan Learner Workplace and or Site Approval Policy in its current form defines a mentor as “A person qualified in the same listed trade as the learner who will work with learners to assist and guide them to complete the structured work experience component”. Mentors are key to ensuring that apprentices get to fully understand the scope of their trade and achieve high levels of competence.

South Africa is however experiencing a shortage of mentors and this is negatively affecting the availability of workplaces. Part of the reason for this is that for a person to become a mentor they need to possess a trade certificate. In an ideal situation this would be more than enough.

In the current situation there needs to be more flexibility in the registration/recognition of mentors. A transitional arrangement needs to be included in the revision of the current policy to further expand the pool of mentors we have. The transitional arrangement will have a fixed time period ending March 2021 in order to encourage the attainment of trade certificates.

There are two opposing schools of thought in regards to the registration of mentors. The school of purists suggests that only qualified artisans with three years’ post-qualification experience should be registered as workplace mentors. This would ensure the integrity of the apprenticeship development system. In a traditional apprenticeship system a qualified mentor would train an apprentice. With their level of experience they would be able to impart the trade knowledge they have onto the apprentice. The purists argue that a certificated mentor knows the full scope of his trade whereas it might not be the same for those not certificated but have workplace experience only. In today’s legislative environment there may be OHS implications for an apprentice being mentored by a non-qualified mentor.

The innovation school on the other hand purports that relevant workplace experience is sufficient enough for one to be registered as a workplace mentor. This school of thought argues that the mentor has the relevant experience to be able to impart the relevant workplace experience onto the apprentice. They argue that in the 80’s workplaces and mentors did not go through an approval and registration process in

order to take on apprentices but still produced qualified artisans. There are instances where a worker may have more than ten years work experience and know enough of the trade scope to be able to mentor someone. Their shortcomings might be supplemented by another worker who may have the remaining required work experience.

The main difference between the two schools of thought is around the meaning of qualified. Does qualified mean a person in possession of a certificate or one with the relevant workplace experience? One with a certificate has been formally assessed whereas one with experience has never been formally assessed to ascertain the level of relevant experience in the particular trade. The transitional arrangements proposal is one where employees without trade certificates are tested to determine if they have relevant trade qualifications through a panel interview. This will give them the time to be able to close their gaps whilst mentoring and eventually take a trade test. This would happen within the transitional period. This approach would fill the gap the artisan development process is currently faced with in relation to the shortage of mentors. Post the transitional period only certificated artisans will be registered as mentors.

A longer term view needs to be taken as to the minimum requirements necessary for one to become a mentor. Whichever option is taken in relation to the prerequisite criteria for one to be registered as a mentor, it will be necessary to develop minimum requirements which may include some accredited training on artisan workplace mentoring and pedagogical training.

A positive step forward to growing the pool of mentors is the release by the Minister on 13 February 2015 of a draft Gazette for the registration of artisans. The objectives of the regulation are to :

- Establish a legislative framework for the professionalisation of artisan development practices in South Africa;
- define the requirements for and the process of registering as an artisan with the Department of Higher Education and Training (DHET);
- assist to enhance the quality of work delivered by registered practicing artisans;
- enable the DHET to distinguish for statistical purposes between qualified artisans and artisans practicing the trade in which they are qualified;
- assure industry that if it employs a registered practising artisan, that that artisan is up to date with developments within that trade and will be able to deliver quality work;
- will implement Section 26 C of the Skills Development Act, as amended in 2008; and
- will enable the DHET to determine and grow the capacity for mentoring of artisan learners.

5.2.2. Workplace Funding and Incentives

Several employer funding mechanisms exist in the artisan development system. The Generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy is one of these employer incentives. The Policy sets out the applicable subsidy that will be granted to qualifying employers. The aim of the grant is to assist employers with the financial requirements in the training of apprentices over the full term of their apprenticeships.

Section 12h of the Income Tax Act provides for deductions in relation to learnerships registered with a SETA. This means that the taxable income of an employer will be reduced by the deductible amount which will effectively decrease the income tax paid by the employer. Another SARS incentive is the Employment Tax Incentive. This incentive aims to decrease the amount of PAYE an employer pays when they employ qualifying employees between the ages of 18 and 29. The Chief Director will lead a process to engage SARS on understanding the two SARS incentives. Understanding is required as to their co-existence and if it is possible to combine them.

The availability of incentives is necessary to stimulate skills training which is much needed by the economy. It will be prudent though to ensure that these incentives are easy to access, not complex and do not create an administrative blockage to the increase in workplaces. The work of the Workplace Development Sub-Directorate needs to incorporate these incentives in the interactions with employers on the benefits of training apprentices.

5.3. Dual System Apprenticeships

The Dual Apprenticeship System is a training method where training takes place in educational institutions and workplaces. For Artisan apprentices this would take place at a TVET College (knowledge and practical) and a workplace. It is an integrated educational system that allows the apprentice to apply what they have learnt at the TVET College not long after they have gained the theoretical knowledge. With A21 apprenticeship programmes, apprentices will enter the workplace not long after their training has started. This offers apprentices the opportunity to learn about organisational culture and discipline soon in their apprenticeship.

The sequencing of when apprenticeships will go into the workplace will be determined by the occupational teams looking at the detailed syllabus of the occupational qualifications. It might be that an apprentice attends two days at the College and three days at the workplace, depending on the qualification and module. This may be very different for other trades and modules.

For a dual system to work, closer ties are needed between all social partners. The DHET, employers and organised labour will need to forge even stronger relations to ensure the success of the A21 apprenticeships. With the DHET's aims of making

TVET Colleges institutions of choice, there is an urgent need to ensure that this system of learning for the trades be rolled out as smoothly as possible. Programmes like the Decade of the Artisan are engaging with employers on an ongoing basis to ensure they open up their workplaces to apprentices.

Open learning may also lead to more apprentices taking their knowledge modules via the web. This would increase access which in return would require even more workplaces. Though this may be the case, all apprenticeship programmes would have to follow the new 7 steps model of which the dual system is a part of.

5.4. Key Implications

The Dual Apprenticeship System will not succeed without a strong relationship between the SDPs and employers. Workplaces are central to the development of quality artisans in every aspect. The DHET will need to work even harder to ensuring that conditions are conducive for employers to open up their workplaces for apprenticeship training. The establishment of NAWDSAF gives impetus to the developmental and support work required by workplaces.

The DHET will adopt a developmental and support approach to workplace training, especially in cases where aspirant apprenticeship employers do not meet the minimum requirements to take on apprentices. This approach describes a mutually beneficial relationship between the DHET and employers. One of the key areas the DHET will work on is the development of mentors to ensure that workplaces also achieve high standards of training.

6. COMET

International education systems have developed measurement tools to objectively assess the health of education systems at a particular point in time. These tests help to determine trends within and across different systems, with the purpose to improve practice and to check progress. For schooling, such measurement instruments include the Programme for International Student Assessment (PISA), amongst others. For vocational education, an instrument that will measure and benchmark *competence levels*, had to be developed. Such a system has to assess individual levels of competence per person, but should also point out strengths and weaknesses of vocational education and training (VET) and provide a comparative assessment across VET institutions internally and systems in different countries externally. A large scale competence diagnostics system, the Competence Measurement in Education and Training (COMET) was first piloted in Germany and China and was then brought to South Africa by the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), in partnership with the University of Bremen (Germany). In the implementation of the South African pilot, it became evident that COMET is unique in its ability to measure competence across different occupations; to enhance the development of competence; to contribute to shaping a

vocational identity; and, to inform a didactical model for vocational education and training. The pilot in South Africa has therefore resulted in many important lessons in respect of its vocational education and training system.

The merSETA has since 2007, been committed to build the next generation of artisans in South Africa. However, breathing new life into an apprenticeship system that has been in decline for many years, necessitated the recognition that the successful systems of the 1980's, may no longer meet the requirements of modern industrial processes. Given the demands of the current age of technological advancement, the merSETA set out to empirically measure the competence of apprentices using the COMET measurement tool. The project was initiated against the background of an outdated apprenticeship teaching and learning system, as well as weak relationships between education and training institutions and relevant workplaces.

Towards the end of 2011, the South African pilot project was introduced in the electro-mechanical (Millwright) occupation, involving 300 apprentices from six different education and training institutions: two in-company training schools; two public TVET colleges; one private TVET college; and a university of technology. The purpose was, through the COMET tests, to assess the competence of apprentices, but also to pilot a new apprenticeship development approach dubbed the *Dual System Apprenticeships*, and to assess the strengths and weaknesses of the current delivery system.

To truly measure competence, testing has to take into account the principles and objectives of vocational education and training (Rauner, *et al*, 2012b). COMET identifies three dimensions as integral to TVET: a content dimension; an action dimension; and a requirement dimension.

The *content dimension* refers to the subject matter of the learning area which forms the basis of appropriate test tasks that reflect competence from the novice to expert level. The content dimension enables 'occupation-specific implementation of a trans-occupational test concept. Competence levels and the competence development of learners in different occupations and different VET system can be assessed against the same competence model', enabling comparisons within and across systems (Rauner, *et al*, 2012b: 162).

The *action dimension* includes the preparation for, the activities and the evaluation of concrete, authentic work tasks which results in 'complete professional action. The core of this concept is that learning requires knowledge of the whole of a professional task – from informing and planning to final evaluation' (Rauner, *et al*, 2012b: 162). This means that tasks cannot be seen in isolation – occupational competence requires understanding of every aspect and the consequences of the task.

The third dimension is the *requirement dimension*. This refers to the level of competence derived from objective criteria identified in the work context. The extent to which the criteria are met indicates the level of competence of the apprentice, the

quality of the product, and the degree of problem-solving ability displayed by the individual (Rauner, *et al*, 2012b).

The South African COMET pilot project measured competence at four levels: (1) nominal competence; (2) functional competence; (3) processual competence; and (4) holistic shaping competence.

Nominal competence reflects the superficial conceptual knowledge of the field and individuals at this level can therefore not yet be seen to be competent. They are considered a 'risk group' (merSETA, 2012).

Functional competence refers to basic technical knowledge learned in isolation – it is the elementary subject knowledge and skills not yet integrated and assimilated (Rauner, *et al*, 2012b). The skill of integrating knowledge to solve process related problems is therefore still very limited (merSETA, 2012).

The third level of competence is *processual competence* which relates to the ability to interpret work tasks in terms of the relationship with work processes and workplace situations. Aspects such as 'economic viability and customer and process focus' (Rauner, *et al*, 2012b: 164), as well as communication through the 'ability to express thoughts in a clear and organized way, through verbal accounts and technical drawings' to propose solutions, are important skills at this level of competence (merSETA, 2012: 7).

The fourth and highest level of competence is *holistic shaping competence* – the full complexity of the task is understood and 'due regard [is given] to the diverse operational and social conditions in which they are performed' (Rauner, *et al*, 2012b: 164), resulting in solutions which are uniquely different (merSETA, 2012).

The four levels of competence are determined through a set of test instruments including open-book tests and learning tasks, a context questionnaire and questionnaires of the students' test motivation (Rauner, *et al*, 2012b: 165).

In addition, it is not only the apprentices' competence levels that are assessed through COMET. TVET lecturers have a central role in competence development. For this reason the lecturers were trained in advance so that adjustments could be made to lesson plans to include problem-solving exercises beyond the basics (merSETA, 2014). This approach therefore ensures that teaching is adapted, using 'work-process knowledge principles' to enhance students' learning before the COMET tests (Brown, 2013: 2).

Further, drawing from lecturing staff and industry partners, 'raters' (assessors) were trained to use a set of sub-criteria derived from the different dimensions to assess the candidates (*content, action and requirement* dimensions). Each student was assessed by two 'raters'. Importantly, the training of the 'raters' followed the exact same format as used elsewhere in the world, enabling comparisons to be made across TVET

systems. Very high inter-rater reliability was achieved through this approach (Brown, 2013: 2). The COMET measurement tool therefore enabled successful benchmarking of the performance of the TVET systems of South Africa, Germany and China.

Some important findings in respect of the apprentices emerged from the South African pilot project. These include:

- Despite apprentices' high motivation, they achieved low scores. More than half the candidates' results fell into the risk group of nominal competence. Further, compared to China and Germany, in South Africa only 27% of the apprentices fell within the functional competence level, and only 3% achieved processual competence and holistic shaping competence;
- the apprentices nevertheless displayed high levels of commitment and put in much hard work to improve – participating in the project transformed their behaviour;
- the group who fared the best was from an in-house training provider. This suggests that the greater exposure to work integrated learning as a result of being in the workplace all the time, is proving critical for the development of competence; and
- despite being in the second or third year of their apprenticeships, apprentices' competence levels did not significantly improve. While a greater breadth of knowledge is attained, there is no significant improvement in the depth of knowledge – their learning has followed a horizontal modular structure, suggesting that a different approach to competence development is needed (merSETA, 2012).

In respect of the pilot itself, it is clear that the COMET diagnostic tests achieved what they set out to do: they successfully assessed the competence of individual apprentices; enhanced teaching and learning through the preparation of TVET lecturers; pointed out the strengths and weaknesses of the current delivery model and enabled comparisons between TVET institutions and between TVET sectors of different countries.

Furthermore, the pilot also indicated that the merSETA has developed a feasible model to update and renew the apprenticeship system in South Africa. The *Dual System Apprenticeship* approach entails 'an integrated model which enables apprentices to reflect the theory and simulated practicals taught at the college against the real world of work (merSETA, 2014: 6).

The merSETA is now ready to roll out this approach to other occupations, including Mechatronics Technicians, Welders and Electricians. The roll-out includes making available the COMET tests to apprentices in these three additional trades (more will be added over time), enabling companies to assess their apprentices' problem-solving competence before they reach the trade test milestone (merSETA, 2014: 7).

The most important outcomes of the pilot include the fact that the merSETA will be able to replicate this approach to competence development in other occupations, making the COMET measurement tool truly trans-occupational; and, with the introduction of a new delivery model, namely the *Dual System Apprenticeship* the merSETA potentially could transform the South African apprenticeship system to meet the requirements of modern industrial settings.

1. The COMET competence diagnostic test is not without limits – it cannot test tacit knowledge, occupational aptitude, social skills, those abilities that come into play in interactive work processes, and manual dexterity – all of which are important skills in occupational settings (Rauner, *et al*, 2012a). The COMET tests do, however, accurately assess the level of competence, and enhances the didactical process.
2. The COMET tests are not only diagnostic, but also remedial – competence is developed through reflective practice. Each apprentice receives a one-page report against eight competence criteria, highlighting weaknesses – this is important information for the teaching system to take up in lessons and practical work in the following year.
3. Since TVET lecturers are pivotal to competence development, they need training and preparation in order to adjust lesson plans and practical sessions to ensure that progressively demanding work-related problem-solving skills are inserted into the curriculum.
4. Higher achievement was reached where apprentices were closer to the workplace. This suggests that adjustments to the current delivery model in South Africa is necessary to improve integration of learning and work – the merSETA has dubbed this delivery model the *Dual System Apprenticeship*.
5. The development of competence ‘from “novice” to “expert” [therefore] needs a different approach. Learning must take place within the context of real business processes’ (merSETA, 2012: 8).
6. In South Africa, the *Dual System Apprenticeships* model will require extensive curriculum integration across different sectors in the education and training system;
7. Through the ‘rater’ system, it is possible to compare the quality of TVET teaching and learning and competence levels across different VET system.;
8. Crucially, the COMET project shaped meaningful and mutually beneficial relationships between colleges and workplaces.

7. Trade Testing System

The Skills Development Act Chapter 6A and Section 26D lists the statutory functions of the NAMB in relation to trade testing. The implementation of the trade test regulations and trade testing processes is the responsibility of the NAMB. The DHET is in a process of developing a web based trade testing system that will be implemented at all accredited trade test centres. The key focus of the system is to

progressively remove the manual paper based activities currently active within the trade testing process.

One of the functions of the web-based trade testing system is the collection of national data that will allow the DHET to measure the national trade test pass rate. Detail was given in section 5.1 regarding the current trade test pass rate baseline of 45% only consisting of Indlela trade test data. The implementation of the web-based trade test system will then allow for the expansion of the data collection process to become a national process. This will also give us a mechanism that will accurately measure the pass rate of trade tests nationally.

A current challenge within the manual trade testing processes that may contribute towards the low pass rates is the depletion of the variations of tasks over the last couple of years to a single task per assessment module in some trades. The single task availability allows a candidate to know precisely in what he will be tested and may limit the preparation done by candidates and provide a false sense of confidence within some candidates, leading to lower standard of performance than required.

The web-based system will be supported by a question bank with a variety of tasks per assessment module for all trades that would support computerised random generation of a trade test through selection of task combinations. A skilled and capable workforce is produced in order to give industry the resources it needs to be efficient and competitive. It is industry that ultimately uses the artisan skills in their operations. It is industry that drives the development of technologies and new skills to enable it to continually improve. It is therefore logical that industry be key to the development of trade test tasks as it is in the development of occupational qualifications and assessment specifications. The assessment specifications TWG would then assess if the trade test tasks submitted by employers cover the scope of the trade as far as the QCTO Curriculum and assessment specifications. This process could greatly expedite the increase in trade test data bank to. This would have the effect of increasing the quality of trade testing and eventual certified artisans more rapidly.

A further benefit of the system would be that it would be secure and have a range of security measures such as thumb print recognition for administrators, candidates and assessors to limit fraud and corruption in assessment processes.

The trade test regulations have been in development and processing for the last few years. The purpose of the regulations is to replace all prevailing industry and sector-based trade testing system. The trade test regulations provide a harmonisation mechanism for trade testing by setting criteria for certification, trade testing, minimum entry for trade testing and quality considerations. The trade test regulations will set the legal basis for trade testing and close the gap currently dealt with through the transitional arrangements.

7.1. Key Implications

There is a need to improve the quality of trade testing nationally. The introduction of a web-based national trade testing system will bring back the integrity that the trade testing system requires. It will have an impact on the quality of artisans who eventually come out of the artisan development system.

The trade testing system belongs to employers as they are the recipients of the qualified artisans coming out of the system. Employers are in tune with the latest technologies and developments in the workplace. By having employers develop and submit trade test tasks for approval and inclusion in the tasks data bank will ensure apprentices are tested on the latest systems. This will also stretch SDPs to ensure that they are constantly abreast of the latest developments within a particular trade.

8. Artisan Recognition of Prior Learning

It is close to twenty years since South Africa discarded the apartheid regime and replaced it with a democratically elected government. Much has been achieved since then, but much remains to be done to rid our country of the injustices of its colonial and apartheid past. Deep seated inequalities are rooted in our past; it is not by accident that the remaining disparities of wealth, educational access and attainment, health status and access to opportunities are still based on gender. A growing black middleclass has been empowered by the new conditions created by the arrival of democracy, and its members have managed to transform their lives in many ways. However the majority of South Africans have still to attain a decent standard of living. Most black people are still poor; they are still served by lower quality public services and institutions (including public educational institutions) than the well off. Patriarchy, also a legacy of our past, ensures that women and girls continue to experience a subordinate position in many areas of life, including in much of the education and training system.

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The RPL system is born out of a system where black people were not afforded the opportunities to appropriately acquire education and the opportunities it came with. In the artisan development system artisan aides were the result of prevention by the Apartheid system to access educational opportunities which would lead to trade certification. The DHET has piloted an ARPL model with the aim of developing an ARPL system that will effectively address the gaps existing in artisan aides and those in informal artisan trade sector of the economy. Many of these ARPL candidates have accumulated years of trade experience, but never got the opportunity to formalise this learning experience gained.

Route A: A candidate who is recommended for this route will get a recommendation to NAMB for NAMB to recommend the candidate for QCTO certification. Candidates who may qualify for this recommendation are those with legacy sector and bantu-stand trade certificates.

Route B: A candidate who is recommended for this route will be recommended to go for a trade test. Should they not be found competent in a trade test they will then be referred for gap training, the completion of which will lead to recommendation for trade testing again.

Route C: This route consists of candidates who after a self-evaluation interview are found to have specific gaps. They will then be referred for gap training based on the identified gaps. The completion of the gap training will result in the compilation of a technical PoE which will be used for recommendation of the candidate to trade testing.

Route D: A candidate who goes through this route is one whom the technical evaluation panel assesses to have serious gaps and is therefore recommended for direct gap closure processes. The completion of the gap training will result in the compilation of a technical PoE which will be used for recommendation of the candidate to trade testing.

It must be noted that as much as this process aims to open up certification opportunities for those who have historically been educationally marginalised, quality is at the centre of this process. The web-based trade testing system will filter out any apprentices and ARPL candidates who do not meet the competency levels required for certification. The development of part qualifications will in the long run ensure that candidates are recognised for a part(s) of the qualification they qualify in with the aim of ensuring their contribution to the economy.

8.2. Work Breakdown Structure

The work breakdown structure gives more detail as to the different processes involved in developed ARPL model.

8.2.1. Advocacy And Registration

8.2.1.1. Advocacy

- Advocacy is being done through the Decade of the Artisan (DoA), a ministerial initiative promoted by the Deputy Minister of Higher Education and Training;
- the National Artisan Development Support Centre (NADSC), where prospective ARPL candidates can access the website

(<http://nadsc.dhet.gov.za>) on-line and the call-centre at Ekurhuleni East College provides information;

- Ministerial ARPL Advocacy programme;
- newspaper advertising and advertorials advocates artisan development which includes the opportunities for ARPL;
- radio and TV broadcasts propagate the importance of artisan development inclusive of ARPL;
- posters, brochures and other information sources will be available at Labour Centres and TVET Colleges and accredited trade test centres;
- roadshows to targeted stakeholder groups eg. Organised Labour and Bargaining Councils, SETAs, TVET Colleges, Employer associations; and
- criteria for ARPL must be available.

8.2.1.2. Registration

Registration for ARPL will be done only at Public TVET Colleges and accredited trade test centres while this function is being incrementally moved from Labour Centres. Registration must be based on approved national criteria with minimum age at 19 years.

8.2.2. Orientation

After registration the ARPL candidate will be inducted together with other registered ARPL candidates to inform them of:

- What ARPL is;
- the purpose and process of ARPL;
- the documentation needed for the Evaluatory PoE;
- the legislative framework related to ARPL;
- what expectations are created and how to manage those expectations; and
- use orientation as a filter to remove the chance-takers.

Orientation should as far as possible be combined with registration to reduce candidate costs where possible

8.2.3. Evaluatory Portfolio of Evidence (PoE)

The ARPL candidate must compile a PoE that includes a Curriculum Vitae CV and any other certified supporting documents of qualifications and current and previous employment together with the trade-related duties performed. Where a candidate is self-employed, such a candidate must provide affidavits (signed in the presence of an officer of the law) to support their request for ARPL, which complies with the

Transitional Arrangements as contemplated in the Trade Test Regulations and National Policy for ARPL

8.2.4. Technical Panel Evaluation

The Technical Evaluation panel will evaluate the Evaluatory PoE to determine a candidate's suitability and categorisation according to the following:

- A: Recommendation of Certification
- B: Trade Test
- C: ARPL Toolkit based Assessment
- D: Gap Closure
- E: Non Suitability. The Technical Panel comprises of qualified artisans (2 or more) who are subject matter experts (SMEs). The panel members would be approved and registered on a database as assessors with the National Artisan Moderation Body (NAMB). These panels could also comprise Advisors.

8.2.5. Advisor and Administrator

8.2.5.1. Advisor

The Advisor has the central role in the ARPL process. The Advisor is a qualified artisan and a subject matter expert (SME) registered with NAMB as an assessor to undertake the following functions within the trade registered for or related trade to the one which is being evaluated and assessed against:

- Orientation of candidates;
- conducts interview and confirms and signs off candidate self-evaluation;
- provides feedback on gaps;
- refers for gap closure;
- provides mentoring and coaching where required;
- monitors PoE compilation and update; evaluate gap closure;
- reports to stakeholders; and
- recommends for trade testing.

8.2.5.2. Administrator

The Administration worker, who has preferably studied in an engineering related field will assist with the registration of the ARPL candidate (online or manual) and ensure that the candidate provides the appropriate documentation required for the Evaluatory PoE. Other duties would be:

- Receives PoEs from Panel recommended for Gap Evaluation and closure (route C and D);
- administers phase evaluations (includes logistics and preparations of documents, invite of candidates); and
- updates Portfolio of Evidence (PoE) after phase assessments.

8.2.6. Self- Evaluation/Interview

The candidate evaluates himself/herself whilst simultaneously being interviewed by the Advisor to confirm self-evaluation. The candidate will be given a checklist with the breakdown of the modules of the trade against which the candidate must indicate his/her competence against each module. The candidate would simultaneously be interviewed by the Advisor to confirm the candidate's competence for each of the modules. This would ensure a more objective evaluation and provide a realistic gap indication in order for the gap closure programme to be focussed.

The checklist will be signed by the candidate, Advisor and a witness that is a representative of the employer. This may be a person from organised labour structures.

8.2.7. Feedback And Referrals

8.2.7.1. Feedback

After the candidate's self-evaluation/interview, the Advisor will give feedback to the candidate regarding any gaps which may have been identified. The Advisor will together with the candidate agree on the extent of the gaps and how the gaps could be closed. Feedback will also be given after the phase assessments. Feedback could include feedback on the relevant part qualifications in which the candidate may receive recognition for.

8.2.7.2. Referrals

The Advisor would refer the candidate for gap closure to an accredited SDP or an approved workplace closest to the candidate's workplace or community.

8.2.8. Gap Closure

The deficiencies identified in the knowledge and practical phases and the integration of the two will be identified as gaps. Based on the gaps identified, a programme would be developed by the accredited SDP or an approved workplace. Where possible open learning options can be considered.

Trend analysis on identified gaps must be fed to TVET Colleges for programme development. In addition where mathematics and communication gaps are identified, either AET or FLC should be considered.

8.2.9. Phase Assessments

8.2.9.1. Theory Assessment

When gaps have been plugged at the TVET College or training centre, Assessment of Trade knowledge will be conducted to determine depth of knowledge against a set of questions based on the particular trade.

8.2.9.2. Practical Task Assessment

Where gaps are identified related to trade practice, a candidate will be assessed using Practical tasks related to the particular trade against which a candidate is assessed. These tasks are usually integrated with trade knowledge (theory, mathematics and drawing).

One or more different tasks are assessed to ascertain whether the candidate has the skills and knowledge required by the particular trade. These tasks cover a critical part of the scope of the trade and are usually similar in format to tasks the candidate may receive in the trade test.

8.2.9.3. Workplace Observation

Observation of the candidate in the workplace (employed and self-employed) will be done by the Advisor at the workplace of the candidate. Employed candidates in the workplace would be assigned day- to- day work in the normal performance of their duties. These duties cannot be dictated to the workplace. Where a candidate is self-employed, the candidate would be observed wherever the candidate performs his/her work.

8.2.10. Technical PoE

The Evaluatory PoE will be updated with the phase assessments (documentary proof thereof), to become the Technical PoE. The recommendation of the Advisor for trade testing will be included in the PoE. The Advisor will then become part of the Technical Panel to evaluate the PoE.

8.2.11. Trade Test

On approval of the candidate for the trade test by the Technical Panel/Advisor, a recommendation must be submitted to NAMB that such a candidate must be given approval to attempt a trade test.

8.2.12. NAMB

The National Artisan Moderation Body (NAMB) is a unit within the DHET with statutory functions which is appointed by the QCTO as an AQP to perform Quality Assurance functions on its behalf. NAMB moderates trade tests and recommends certification to the QCTO.

8.2.13. QCTO Certificate

Since 01 October 2013 all trade test certificates issued are non-sector based and bear the logo of the QCTO. It does not discriminate between contracted (Apprenticeship and Learnership) and non-contracted (Artisan RPL) candidates.

9. Quality Assurance

9.1. Regional/Provincial Quality Assurance

There is a need to create a monitoring function in relation to training provision, practical provision and workplaces as a part of the quality assurance value chain. This monitoring function will ensure adherence to policy, accreditation criteria and ensure that apprentices are developed through the highest standards as directed by the DHET.

9.2. Training Provision Development and Monitoring

The NAD (Indlela) in collaboration with the VCET branch and QCTO should constantly monitor the delivery of learning content and its effectiveness as taught at the SDPs.

The delivery of learning content is critical to the success of the SDPs and the artisan development system. A monitoring team should be established focusing on trades as per Gazette 35625 which should do spot visits to SDPs to ensure the adherence to curriculum and pedagogical delivery quality. This monitoring team should ideally be made up of qualified artisans, lecturers, trade-specific DQP members and organised labour. Their work should include post-engagements with lecturers and learners to determine weaknesses in the training provision in order to recommend appropriate interventions. This approach will also assist with lecturer development .

It is highly important that this approach is not seen and used as a stick to punish the SDPs and their lecturers which may not comply with the training provision requirements. The monitoring approach is a developmental support mechanism aimed at assisting SDPs achieve optimal teaching success. The process is aimed at evaluating their adherence to the teaching curriculum and where gaps exist recommend corrective actions.

The DHET has a provincial presence backed up by multiple resources in each province. These resources which include staff are not utilised optimally. The DHET provincial employees are ideally suited to be trained as developmental support monitors.

9.3. Workplace Development and Monitoring

The QCTO workplace curriculum sets out what apprentices need to learn when they are in the workplace. This information is relevant in the development of trade specific log-books which details tasks the apprentice should be performing during their workplace learning.

The current system does not have a workplace monitoring function. This function needs to be set up and operationalised to give a monitoring impetus to the workplace development function. The improvement of trade test pass rates and the related quality of the artisans coming through the apprentice system is highly dependent on adherence to the workplace curriculum (log book) and the quality of the apprentices' learning when they are in the workplace.

As with the SDP monitoring function, this function is an important function in the workplace development process. The DHET is not looking at catching out and punishing those that do not comply but wants to assist those employers with challenges to attain the highest levels of mentorship and workplace learning for apprentices. The operational function will be effected through the DHET provincial structures to ensure closeness to employers.

9.4. Trade Testing QA

The trade testing system needs to be quality assured to ensure the quality of the trade testing itself. The accreditation of trade test centres requires that they sign an SLA agreement with the NAMB. One of the stipulations of the SLA agreement is a requirement for TTCs to allow their assessors to perform at least one moderation per quarter at another TTC within the geographical area of the TTC.

The moderation of trade tests is different from the moderation of tests and exams. This requires that the moderator be present at a trade test to quality assure the actual

trade test taking place. The moderator needs to look at matters like potential bias and adherence to assessment specifications by the assessor and proper undertaking of trade test tasks by the candidate. The SLA with TTCs will give the NAMB the capacity and resources it needs to perform this critical task.

NAMB is currently in the process of registering assessors and moderators in the 125 trades as per Gazette 35625. Only moderators and assessors registered with the NAMB will be able to perform assessments at TTCs and perform moderations. The NADQAC is responsible for the processing and approval of accreditation applications for SDPs and TTCs. This process ensures that all requirements of the SDP, TTC and Assessor Registration policies are met before accreditation can be approved.

9.5. Key Implications

Quality assurance is a vital factor within the artisan training system. The DHET will establish a quality assurance team for the development and support of SDPs and workplaces. The team will work closely with SDPs and employers to ensure they achieve the highest standards of delivery as per the QCTO Curriculum requirements.

The NAMB will have to develop a monitoring process for the moderations conducted through the SLA with TTCs. This quality assurance function in relation to trade testing is imperative in that the trade test will be the only external summative assessment. The quality assurance function at this level has implications for other quality assurance functions performed at the various stages of the apprenticeship learning cycle.

10. Policy Implications

10.1. Innovation

The current skills development landscape has many challenges that still need to be overcome. The DHET through this trade test and quality improvement strategy has identified some of these challenges and tried to come with pragmatic and sometimes innovative solutions to these challenges. The deliberations at the trade test pass rate and quality improvement strategy conference suggested that more innovative policy solutions were possible. Some of these policy solutions seem too outrageous but a closer look at them is required which may result in the development of new ways of looking at some of the policy solutions. These possible solutions are as follows:

10.1.1. Workplace Policy Innovation

10.1.1.1. Combined funding model for norms and standards funding and levy grant funds

The change in the 7 steps (swapping step 3 and 2) would also make the funding of apprentices easier and more meaningful as they would all have a workplace component. The EPR concluded that on average the cost of training an artisan is R400 000. The cost element comprises of the theoretical and workplace training. The changes with step 3 and 2 would allow for the combination of TVET College funding norms and the Generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy. This would ensure that apprentices are funded for their full learning component (knowledge, practical and workplace). This also places an obligation on the DHET and SETAs to ensure that more employers open up their workplaces in order to accommodate apprentices

10.1.1.2. ARPL non contracted learner grant funding model

The developed ARPL model proposes that a funding model is necessary to fund the gap closure that the ARPL candidates may be required. The gap closure will be in the form of theoretical, practical and workplace training. The revised ARPL policy will give more detail on this proposal.

10.1.1.3. Review of LRA S200D

The status of learners needs to be changed to reflect the learning aspect of their workplace component. The proposal is to change s200d of the LRA to exclude learners in the workplace. This would necessitate the formation of structures for management of learners including disciplinary procedures.

10.1.1.4. New legislative workplace policies

The NAD will investigate the possibility of a creating legal foundation that may lead to the increase in workplaces. These proposals must not be looked at in isolation. These policies would be applicable in an ideal world where we do have more than enough mentors. These policy proposals involve:

- Investigating the possibility of legislating that employers should take apprentices based on the number of employees in their employ;
- investigating the possibility of legislating that employers take apprentices based on percentage of payroll of unemployed learners as percentage of

total payroll. The total payroll would be taken as the main factor in determining the number of employees an employer should take; and

- investigating the possibility of legislating that employers take apprentices based on the minimum of one apprentice or ARPL candidate per artisan mentor.

10.1.2. Recruitment and Selection

A very important aspect of artisan development is the career guidance required to create awareness of artisan careers as viable career choices. Policy interventions are required in association with all stakeholders to look into:

- Improving competence levels of career advisors; and
- strengthening implementation of career advisory services from grade 7.

10.2. Current Policy Revision

10.2.1. Workplace Development, Support and Approval Criteria and Guidelines

The NAD Standardised Artisan Learner Workplace and or Site Approval Policy will be revised to accommodate the work of NAWDSAF. The new policy will incorporate a developmental approach to workplaces. Where workplaces do not meet certain criteria, they should be assisted to attain compliance.

10.2.2. Learnership Regulations (2007) replaced by WPBLPA Regulations

The WPBLPA are in the process of development and finalisation. The regulations look at all qualifications requiring a workplace component as part of the qualification. These will include trade, engineering and WIL components.

11. Implementation Plan

This trade test and quality improvement strategy will be implemented through a phased approach over the MTSF period. This will allow the NAD CD time to gradually build up processes to effectively achieve the MTSF goals.

Year 1: 2015/16

- NADSC to develop National Trade Test Database in conjunction with NAMB;
- generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy;
- recommend amendments to LRA to NEDLAC;
- implementation of Trade Test Regulations;
- DoA invited learners to begin at Grade 7;
- investigate current recruitment practices in industry and educational institutions;
- investigate relevance of the NCAP in relation to trades;
- post-intervention strategies developed in conjunction with CDS regarding trained life orientation teachers, CDWs and Ward Councillors at DoA events;
- finalise criteria and guidelines for creation of Artisan Professional Body;
- NAWDSAF to review National Standardised Artisan Learner Workplace and or Site Approval policy;
- develop Workplace Development Advocacy Programmes;
- develop database of employers; and
- Engage with SARS on Section 12h of Income Tax Act and Employment Tax Incentive.

Year 2: 2016/17

- Develop clear artisan career pathways (including articulation into other programmes);
- communicate developed artisan career pathways;
- develop recruitment and Selection tool minimum standards in conjunction with CDS and other social partners;
- roll out GTPP nationally;
- develop standard log-books per trade;
- develop guidelines on competency assessments for A21 inclusive of peer review(moderation) mechanism;
- National/Provincial TVET College workshops with employers on latest technological trends and developing skills sets;
- implement transitional arrangements for mentors;
- develop database of mentors;
- implement ARPL Policy;

- investigate the possibility of legislating that employers should take apprentices based on the number of employees in their employ;
- investigate the possibility of legislating that employers take apprentices based on percentage of payroll of unemployed learners as percentage of total payroll; and
- investigate the possibility of legislating that employers take apprentices based on the minimum of one apprentice or ARPL candidate per artisan mentor.

Year 3: 2017/18

- Combine Norms and Standards funding with Generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy;
- implement new 7 steps methodology in line with new A21;
- implement use of recruitment and selection tool at TVET Open Week;
- operationalise Artisan Professional Body;
- develop mentor development programme inclusive of CPD mechanism per trade;
- operationalise Training and Workplace Development monitoring functions;
- implement ARPL Model inclusive of funding model; and
- implement ARPL Advocacy Programme

Year 4: 2018/19

- Implement Mentor Development Programme inclusive of CDP per trade;
- web-based Trade Testing System operationalised;
- industry Developed Trade Test Task mechanism initiated; and
- implement WPBLPA Regulations.

Year 5: 2019/20

- National Trade Test pass rate at 65% ; and
- 24000 artisans qualified.

12. Acronyms

A21 – 21st Century Apprenticeships
AD TTT – Artisan Development Technical Task Team
AET – Adult Education and Training
AQP – Assessment Quality Partner
ARPL – Artisan Recognition of Prior Learning
CD – Chief Directorate
CDO – Community Development Organisations
CDS – Career Development Services
CDW – Community Development Workers
COMET – Competence Measurement in Education and Training
CV – Curriculum Vitae
DBE – Department of Basic Education
DHET – Department of Higher Education and Training
DQP – Development Quality Partner
EPR – Expenditure Performance Review
FLC – Foundational Learning Competence
GTPP – Generic Trade Preparation Programme
HRDC – Human Resource Development Council
ILO – International Labour Organisation
LRA – Labour Relations Act
MES - Modules of Employable Skills
MTSF – Medium Term Strategic Framework
N - Nated
NAD – National Artisan Development
NADSC – National Artisan Development Support Centre
NAMB – National Artisan Moderation Body
NADQAC – National Artisan Development Quality Assurance Committee
NAWDSAF – National Artisan Workplace Development, Support and Approval Forum
NCAP – National Career Advisory Portal
NCV – National Certificate Vocational
NEETS – Not in Employment Education and Training
NGO – Non Governmental Organisations
NQF – National Qualifications Framework
NSC – National Senior Certificate
NTCS – National Trade Curriculum Statement
OFO – Organising Framework for Occupations
OQ ID – Occupational Qualifications Identification
PAYE – Pay As You Earn
PISA - Programme for International Student Assessment
PoE – Portfolio of Evidence

QA – Quality Assurance
QCTO – Quality Council for Trades and Occupations
SARS – South African Revenue Services
SDA – Skills Development Act
SDF – Skills Development Forum
SDP – Skills Development Provider
SETA – Sector Education and Training Authority
SLA – Service Level Agreement
SME – Subject Matter Expert
SOC – State Owned Company
SSP – Sector Skills Plan
SSS – Sector Skills Plans
TTC – Trade Test Centre
TVET – Technical Vocational Education and Training
VCET – Vocational and Continuing Education and Training
WIL – Work Integrated Learning
WPBLPA – Workplace Based Learnership Programme Agreement
WSSA – World Skills South Africa

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7. Labour Relations Act 66 of 1995
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9. Skills Development Amendment Act 37 of 2008

14. Appendix A

Factors that would improve the trade test pass rate can be grouped according to different criteria in key impact areas . Please consider your personal view on the criteria listed below and the extent to which they would contribute to the national achievement of an improved trade test pass rate.	No impact anticipated	Not sure	Some impact anticipated	Significant impact anticipated
<u>Impact Area 1 - RECRUITMENT & SELECTION OF APPRENTICE CANDIDATES</u>				
1.1. Compulsory pre-apprenticeship career advice				
1.2. Minimum qualifications set on entry into apprenticeship (i.e., according to new occupational trade qualifications)				
1.3. Apprenticeship occupations limited to those listed in the Government Gazette 35625 dated 31 August 2012.				
1.4. 'Seven Steps Guide' to becoming an apprentice easily available to candidate apprentices				
<u>Impact Area 2 - TRAINING PROVISION</u>				
2.1. All training Providers (Public TVET and private) must have SETA/QCTO/NAMB Programme Approval for the occupation being taught - <i>(this includes approved courseware, practical simulation equipment suitable to the occupation, supporting practical instructors qualified through trade test and qualified technology teachers)</i>				
2.2. Problem solving task based teaching must be maintained as an important learning component <i>(i.e., critical cross field outcomes)</i>				
2.3. All training providers must sign-off knowledge components and practical simulation tasks completed in the apprentice's log-book				
2.4. All Training providers must be monitored and required to correct deviations.				
2.5. All apprentices must be administratively linked to an approved training provider on registration of the apprenticeship				
2.6. National Apprenticeship Guide for Training Providers must be used by all training providers as a more comprehensive guide to their obligations in the teaching and learning associated with apprenticeships				
<u>Impact Area 3 - WORKPLACE EXPOSURE/EXPERIENCE</u>				
3.1. All workplaces that host apprentices must have SETA/QCTO/NAMB Workplace Approval for the occupation of the apprentice being hosted - <i>(this includes equipment for the trade and qualified artisans available to host each apprentice)</i>				
3.2. Workplaces should seek to build training partnerships with their sectoral counterparts in an effort to expand the range of workplace exposure available to the apprentice				
3.3. Workplaces should be encouraged to support Dual System Apprenticeships in partnership with public TVET Colleges, in an effort to build work integrated learning linkages at public colleges				
3.4. Workplaces must ensure continuous professional development of their nominated apprentice mentors				
3.5. All workplaces must sign-off each component of workplace exposure in the apprentice log-book				
3.6. Workplace appointed mentors must be qualified in the trade of the apprentice				
3.6. Workplace appointed mentors require five years experience as a practising artisan				
3.7. Workplace mentors must be the only criteria for Workplace Approval				
3.8. Workplaces must be held accountable for the monitoring of the entire scope of training and workplace exposure covered over the period of the apprenticeship as a means of ensuring that learning is consistent and developmental				
3.9. National Apprenticeship Guide for Companies must be used by companies as a more comprehensive guide to their obligations associated with apprenticeships				
3.10. Workplace appointed mentors must sign a Code of Conduct				
3.11. Block release must be supported by employers at least once per annum for apprentices to attend formal training at the appointed Training Provider				

3.12. Rotational release must be supported by employers (<i>i.e., two day to two week modules/courses spread through each calendar year</i>) until the full institutional learning program has been completed				
Impact area 4 - APPRENTICESHIP LEARNING PERFORMANCE				
4.1. Apprentices must be held accountable for the maintenance of their own log-books				
4.2. Apprentice log-books are converted to a single National Workplace Log-book system				
4.3. Apprentice log-books are converted to a national online log-book with access by each signoff party - i.e., mentor, training provider instructor, training provider teacher (<i>for knowledge component</i>) and the apprentice - (<i>access to the log-book profile is managed through the learning agreement reference number</i>)				
4.4. Apprentices must complete a compulsory online self assessment on completion of each twelve month period of the apprenticeship - to be administered by NAMB				
4.5. Apprentices must sign a generic national code of conduct that clarifies their obligations to stakeholders supporting their learning and development				
Impact area 5 - RPL SUPPORT				
5.1. Feedback on Artisan RPL Training Gaps must be completed immediately after the RPL assessment or within a period of four weeks from date of completion				
5.2. RPL Toolkits should be immediately available on formal request to NAMB				
5.3. RPL Assessors must be qualified in the trade to be assessed and registered as a trained RPL Advisor				
5.4. RPL Assessors must sign a code of conduct that binds them to a performance standard set by NAMB and industry				
Impact area 6 - TRADE TESTING				
6.1. NAMB must implement an automated sms system that notifies the apprentice and the employer's appointed mentor/SDF of any administrative status change of the apprentice - <i>e.g., such administrative milestones would be registration on national database, completion of a self assessments, trade test application processed and trade test date, trade test result.</i>				
6.2. Single national automated trade test system across sectors				
6.3. Trade test assessors and moderators sign a code of conduct				
6.4. Trade test assessors and moderators must earn continuous professional development points each year that are designed to keep them abreast of firstly, technology innovations within the trade and secondly, modern assessment practices				
6.5. Compulsory pre-trade test revision implemented as a requirement before the trade test application				
6.6. NAMB(Government) only conducts trade testing - i.e., without a supporting network of accredited decentralised testing centres				

ADDITIONAL QUESTIONS	
7. Which single Impact Area would in your view generally add most value to an improved trade test pass rate? (Give the Impact Area Number between 1 and 6)	
8. In your view, which are the three most important criteria that would add value to an improved trade test pass rate? (Please bear in mind that these criteria may or may not be in your selected impact area). (List three Numbers only e.g 2.2+4.3+6.2)	

15. Appendix B

Artisan Trade Occupational Qualification Implementation Milestone Plan:
Electrician

OFO Code	Trade Title	TT Sites	
671101	Electrician	No	+
Start Date	DQP AQP	Trad e Test	RPL Toolkit
	1 July 2013	Date	Date
	NQF Registration	OQ ID	
	7 Nov 2013	91761	
		NTC	
		Date	
	MES	Learner Materials	Lecturer/Trainer Support
	Date ?	Date	Date
	NCAP	TVE T Sites (K + P)	Work Places (Mentors)
	Date	No + GPS	No + GPS
		END Date	

Each of the milestone blocks is explained in the legend on the next page using the following colour coding system:

Yellow = Standardised /Codified Processes

Green = Completed Processes

Blue Blocks = Work in Progress

Pink Blocks = Work still to Start

Legend for Artisan Trade Occupational Qualification Implementation Milestone Plan

Milestone Plan Element	Description
OFO Code	Occupational Code as per Organising Framework for Occupations
Trade Title	Occupational Title as per Organising Framework for Occupations
DQP - AQP	This is the date that the Development Quality Partner (DQP) is appointed by the QCTO to coordinate and fund the development of an occupational qualification that includes an Assessment Quality Partner (AQP) for each occupation or groups of occupations such as trades where the NAMB is the AQP for 125 trade occupations.
NQF Registration	This is the date the occupational qualification is registered on the National Qualifications Framework by the South African Qualifications Authority
OQ ID	This is the ID Number allocated to the occupational qualification when it is registered on the National Qualifications Framework by the South African Qualifications Authority
Trade Test	This is the date that the occupationally based national trade test (also known as the external integrated summative assessment) is completed and registered with NAMB
RPL Toolkit	This is the date that the occupationally based national recognition of prior learning (RPL) toolkit is completed and registered by NAMB and will allow for a single national standard and process for RPL of persons who developed artisanal competencies both in informal and formal sectors of the economy.
Trade Test (TT) Sites	This is the number of accredited trade test centres and sites across the country linked to a listed trade. At present there 630 of these centres / sites. Each centre / site is being located with GPS coordinates and will be linked in collaboration with Google to an interactive map for Trade Test Centres
National Trade Curriculum Content (NTCC)	This is the date that the National Trade Curriculum Content (NTCC) is completed for the occupational trade qualification. The NTCC is a detailed syllabus that is based on detailed CAPS curriculum utilised by Technical High Schools in the DBE, but adjusted to accommodate occupational trade qualifications. The NTCC details the learning for each module and set of topics per module for all three components of the occupational qualification. It forms the basis for balance of the milestone delivery plan. The trade test and the NTCC must be developed in tandem to ensure that formative assessments detailed in the NTCC is aligned to and supports the summative assessment or trade test.
Modules of Employable Skills (MES)	This is the date that all the modules of employable skills (MES) and relevant part qualifications for applicable occupational trade qualifications are completed and registered with NAMB. An MES is workplace-based skills programme that leads to a part qualification of at least 25 credits (two months) that articulates to a full artisan trade qualification. These shorter programmes are designed to allow persons to gain enough competence to be employable for jobs available in the labour market. A person will be

	given credit accumulation for each MES that is successfully completed.
National Career Advice Portal (NCAP)	This is the date that the National Career Advisory Portal (NCAP) is updated and fully aligned to the occupationally based qualification route to become a qualified artisan in the relevant trade. The occupationally route will become the standardised route, although all previous "historic" routes will be kept on the NCAP for record purposes.
Learner Materials	This the date that learner materials that are fully aligned to the occupationally based qualification route to become a qualified artisan in the relevant trade are completed. The learner materials will include standard text books but an open learning policy is also being implemented through a partnership with Google to allow for e-based learning materials to facilitate a range of leaning methodologies over and above face to face learning processes.
Lecturer/ Trainer Support	This is the date that lecturer and/or trainer support materials that are fully aligned to the occupationally based qualification route to become a qualified artisan in the relevant trade are completed. The materials will include standard text books but an open learning policy is also being implemented through a partnership with Google to allow for e-based learning materials to facilitate a range of leaning methodologies over and above face to face learning processes. The process must be followed by lecturer / trainer training which can include placement in industry for workplace experience.
TVET Sites	This is the number of accredited learning sites that will offer knowledge and/or practical leaning components of the occupational qualification. A site may deliver only knowledge (classrooms) or only practical (workshops) or both. However an integrated approach where learners are rotated between knowledge and practical training processes will be preferred. Each site is being located with GPS coordinates and will be linked in collaboration with Google to an interactive map for Learning Centres.
Work Places (Mentors)	This is the number of approved workplaces that will offer the workplace learning components of the occupational qualification. A workplace may be approved for range of trades subject to the workplace having qualified artisans in relevant trades that act as mentors for the artisan learners. . Each site is being located with GPS coordinates and will be linked in collaboration with Google to an interactive map for Learning Centres.