



REPORT

ACCESS TRUST – SSACI

SUPPORTING COLLEGE

ENGINEERING GRADUATES INTO

EMPLOYMENT

MAY 2013

Research Report prepared by the FET Institute, UWC

TABLE OF CONTENTS

INTRODUCTION	3
RESEARCH OBJECTIVES.....	4
METHODOLOGY	9
FINDINGS FROM THE DATA.....	11
Findings on Research Question 1: How relevant was the college curricula to the workplaces in which students were placed?	11
Findings on Research Question 2: How did students perceive the relevance of the theory component with regard to practical application in the workplace?	17
Findings on Research Question 3: How important was the support provided by the Access Trust project?	21
DISCUSSION AND CONCLUSIONS FROM THE DATA	30
LIST OF REFERENCES	35

INTRODUCTION

In 2012 the Access Trust commissioned the Further Education and Training Institute of the University of the Western Cape to conduct research into a project funded by the Swiss-South Africa Cooperation Initiative (SSACI). In terms of the project, students enrolled at FET colleges in engineering programmes that potentially lead to employment are afforded funding, additional training, and job placement support in order to improve their chances of employment. The project provides bursaries and support as well as establishing links with employment opportunities for graduates.

The Access Trust project ends in December 2013, during which time four student cohorts would have been recruited into FET college engineering courses in staggered intakes. By the end of the project graduates would have completed N1-N3 theoretical training, and CBMT practical Phases 1-3. This report is the output of research into the employment outcomes of the first three cohorts, and a second report will serve to consolidate findings after the fourth cohort has entered employment. Emerging trends and recommendations made in this initial report will therefore be re-examined in the second report due in 2014.

A key objective of this research as elucidated by the Access Trust is to “test the extent to which supplementary training increases the employability of FET College engineering graduates”. Areas of research focus are: the features and relevance of the curriculum used to train engineering students; the design of the education and training intervention used to support them to obtain employment; the extent to which industry accords relevance to the NATED 191 (N1-N6) curriculum offered by FET Colleges; and the additional curricula interventions implemented by the Access Trust in addressing industry needs.

RESEARCH OBJECTIVES

Research Question and Sub-Questions

The main research question could be stated as follows: *What has been the impact of the SSACI funded intervention on engineering students exiting from FET Colleges into employment, and how relevant are college curricula to the demands of the workplace?*

A key focus of this research is to ascertain the extent to which industry needs have been met through the provision of NATED engineering programmes and the perceived value of additional support by the Access Trust. Therefore sub-questions arising are the following:

1. How relevant was the NATED curricula to the workplaces in which students were placed?
2. How did students perceive the relevance of their NATED theory component with regard to practical application in the workplace?
3. How important was the additional support provided by Access Trust for personal/social challenges and for placement in employment?

Before attempting to answer these questions, it would be illuminating to examine the field of literature which has a bearing on the issue of college curricula and transition to the workplace, more particularly literature on the field of Engineering training in South Africa and abroad. This brief literature review is intended to sketch a backdrop against which the findings in this study can be posited.

LITERATURE REVIEW

This brief review examines the limited South African literature on college to work transitions. The section first identifies tracer studies which measure the extent to which college graduates find work. It then details available literature on the interface between the Engineering labour market and the FET college sector, including studies that examine employment practices.

Background

The National Skills Accord (DTI, 2011) commits South African social partners to placing 70% of students at FET colleges in the workplace for work experience during their studies. Moreover, the Minister: DHET's performance agreement includes tracking graduate employment (DHET, 2010). While some data is available on student participation and completion rates, there is a critical lack of data tracking FET College graduate progression into the workplace. Cosser et al report that only 18 out of 50 FET colleges reported short-term tracking of their graduates (Cosser, Kraak, & Winaar, 2012), and currently even that information is not available in the public domain.

There are very few empirical studies on the link between FET college training and work, but it is not entirely absent. Some examples of empirical work include graduate tracer studies (Cosser, 2003a; Gewer, 2010a; Kruss, Wildschut, Janse van Rensburg, Visser, Haupt, & Roodt, 2011; Wildshcut, Kruss, Janse van Rensburg, Haupt, & Visser, 2011; Mukora, Visser, Roodt, Arends, Molefe, & Letseka, 2008), studies on employer/employment practices (Badroodien, 2003; Kraak, 2009; Kraak, 2004; FET Institute, 2013), FET college-industry partnerships (Duncan; Marock, 2011; NBI, 2003; Taylor & Parrera, 2004), company surveys on employer satisfaction/views (Maja & McGrath, 2003; FET Institute, 2013) and a study on FET college practices to enhance employability (McGrath, et al., 2010). Little is known in the literature about performance in the labour market, though there is some evidence from FET college-industry partnership research that work experience during studies has enhanced student employability.

Employment rates

An early and comprehensive survey of FET college graduates was conducted by the HSRC (Cosser, 2003a). Cosser noted that 34% of the graduates were being employed, while another 35% reported being in further study. 58% of whites and 21% of Africans found employment after graduation. 31% of males were employed by companies as opposed to 20% of females. Self-employment was found to be low. 65% of the respondents in employment worked in the private sector, while 15% and 19% found work in the state and non-governmental organisation (NGO) sector respectively. Graduates were employed mainly as technicians and associate professionals (21%), craft and related trades workers (26%), service workers (16%), plant and machine operators and assemblers (16%) and clerks (12%). The majority of graduates (81%) were found to earn either less than R1000 (36%) or between 1000 and 3000 (45%) per month.

Employment practices

A different perspective to establishing the rate of progression from FET colleges to workplaces has been to examine employment practices, or labour market practices. The MERSETA conducted a survey of its companies in 2009/10 (Akoojee, 2010). This survey (n=308) on employment practices suggested that companies hired employees with work experience. Only 25% of the employees were hired from higher education and only 15% were hired from FET colleges. The remaining 60% were recruited from other companies.

The HSRC *Skills Shortages Project* attributes skills shortages in the trades (i.e. artisans) to the decline in the apprenticeship system, and the failure of substitute interventions (like learnerships and FET colleges) to address the backlog (Breier, 2009, p. 1). They note that students with some form of artisan training are unable to find jobs after graduation due to lack of sufficient or appropriate work experience.

Employment practices are themselves worthy of study in understanding college to work transitions, and there is an increasing sense that more attention needs to be paid to demand side factors (Allais, 2012).

It has been suggested that employability can be considered through five dimensions: policy, student, staff, institution, and employer (McGrath, Needham, & Wedekind, 2010) containing both supply *and* demand side accounts of the employability process. The argument here is that there are a range of perspectives and ideologies on 'employability' as concept and practice. A useful typology includes individual factors (employability skills and attributes, demographic characteristics); personal circumstances (household circumstances, work cultures); and external factors (demand factors and enabling support factors) (McGrath, Needham, & Wedekind, 2010, pp. 7-9). Preliminary research shows positive signs of a student, staff and institutional pro-employability orientation beginning to surface, however employer engagement and policy understanding are lacking (McGrath, Needham, & Wedekind, 2010).

College to work transitions

The empirical data raises a number of issues for FET colleges to work transitions. For example, the level at which students terminate their FET college career appears to impact on the employer's perception of FET college graduates. The minimum required exit qualification appears to be too low for some industries. Furthermore, work experience contributes significantly to increasing students' subsequent employment suggesting that work based education routes are still relevant.

However, FET college to industry research suggests that FET college-industry partnerships still need to be built, (NBI, 2003) (Taylor & Parrera, 2004). More importantly, where they do exist, finding sufficient workplaces for students is difficult (SSACI, 2010) (Marock, 2011) (Marock, 2006). The unemployment issue may not be a crisis of a skills mismatch, but rather one of there being no jobs. There may thus be a limit to the absorption rate from the 'demand' side.

Employer perceptions of the FET college sector, or of what the FET college sector should do is not yet clear, nor is it clear to what extent these perceptions are justified. Evidence on these matters is contradictory with low absorption rates for college graduates in areas that are reportedly areas of skills shortage, and with employer

surveys expressing high levels of satisfaction with college graduates that they had employed, but public platforms denouncing the quality of FET colleges.

On the positive side, the limited available research in South Africa provides emerging evidence that certain initiatives can enhance FET college to work transitions. Firstly, access to work experience programmes or work exposure is positively correlated to future employment. Secondly, employment preferences appear to include higher marks and higher levels of education than the college minimum for certain sectors. Thirdly, employers tend to be favourably disposed toward particular programmes (in the Western Cape engineering employers appear to be favourably disposed to the NATED N-programmes). Fourth, soft skills such as students' personal characteristics in terms of tenacity in finding work, and their attitude on the job (e.g. initiative, work ethics) appear to play a role in recruitment and retention. Fifth, students' are more likely to find employment via family and friends, but this is less likely to lead to relevant employment (i.e. in line with their training) than college linkages.

Colleges face capacity and other constraints in terms of creating the conditions for enhancing college to work transitions, particularly in the Engineering fields where there are high levels of 'stop out' (opting to leave at lower exit points) and dropping out (not completing) or failing for a range of reasons. The N-programmes lack a life skills programme or a practical component, both important for the workplace.

Thus the limited available literature suggests that college to work transitions in South Africa are fraught. On the one hand there are signs of increased college commitment to linkages with workplaces. On the other hand colleges operate in an environment which potentially involves an uncertain, fluctuating and sometimes hostile labour market, low labour absorption rates, high unemployment, and weak labour market outcomes. The kind of support offered by external agencies like the Access Trust are therefore critical to facilitating the college to workplace transitions which college graduates so urgently need.

The following section outlines the methodology employed in respect of the data gathering and analysis for this research report.

METHODOLOGY

The research consists of two phases: Phase 1 in 2013 was undertaken in respect of about 40 FET college Engineering students who had been part of the first three cohorts, while Phase 2 will be undertaken in respect of the fourth cohort in 2014. The rationale for the two-phased approach was that the Access Trust will implement a new methodological approach for the 4th cohort of students and the impact of this approach can only be gauged in 2014. This report therefore deals with Phase 1.

The research employed mixed methods: Focus group interviews were conducted with students in the Cape Town area, while those who were living and working further afield were contacted for telephone interviews. Phone and email interviews were conducted with employers and former Access Trust staff, while individual face-to-face interviews were conducted with College staff.

Targeted Respondents

The following respondents were targeted:

- Students from the two project colleges who had been assisted by the project and had since entered workplaces: A list of 32 students was provided to FETI by the Access Trust, but not all students could be contacted as some contact details were obsolete. 22 students were contactable of which some were interviewed in two focus groups and others held telephonic interviews. All of the students contacted are currently in employment. *Appendix A herein details the Access Trust student respondents in this study.*
- 10 x employers where students from the first three cohorts were employed.
- 4 x FET College engineering staff involved in teaching of the Access project students.
- 5 x Access Trust (former or current) staff/associates involved in delivery of the project.

Data Analysis

Data analysis consisted of codifying the quantitative and qualitative research data received from stakeholders, and identifying key themes arising out of the interviews conducted with students, employers, college staff and Access Trust staff. While the emphasis was on the qualitative data that spoke to the relevance of college curricula and the added value of the Access Trust project from the perspective of the participants, there was also additional descriptive data which would be useful for future research.

FINDINGS FROM THE DATA

The findings from the data cover two main areas: the relevance of the curriculum and the impact of the Access Trust project. Students in the programme were NATED N2 to N6 students studying mainly Electrical Engineering, with some Motor Mechanics, Mechanical and Refrigeration technicians.

Findings on Research Question 1: How relevant was the college curricula to the workplaces in which students were placed?

The constituent target groups were able to comment substantively on this question but it may be illuminating to begin with what the expectations of employers were of college graduates.

What did Employers expect of college graduates in the workplace?

This question was asked in order to lay the groundwork for eliciting the views of the employers on the training of college students, and then to see if their expectations were met in the students that they employed subsequently. The employers interviewed were in agreement that students were expected to have the basic theoretical knowledge and be able to put that into practice, and the rest 'they pick up with experience'. However, some employers also mentioned the 'softer skills' that were needed. The extracts below are illustrative of this sentiment across the board, where employers expected students to:

- *Use the theory and understand the practice.*
- *To be a good worker and be reliable.*
- *Good personal grooming.*
- *Have the technical knowledge.*
- *Have a good knowledge and be willing to learn: "A student might have done a bit of practical at college but it is very different in the workplace".*

An employer stated that he was not expecting the student to do the work of a qualified artisan as it was not allowed, but he was 'expected to work with artisans'. In

commenting on a very good student, the employer said: *“When he started we expected him not to know about the company. We expected him not to be on the same level but to grow. He is so co-operative and has earned my trust. It’s a responsible job and he is responsible”*.

Employers were asked whether in their opinion the college graduates possessed sufficient knowledge and skills to do the work required by the workplace.

Most of the employers were familiar with the college N courses as some of them had themselves graduated from N courses. Without exception the employers interviewed were extremely positive about the training that had been provided by the colleges through the N courses, even though they qualified this by acknowledging that they would need help in the workplace to apply their knowledge. Their experiences of the students though, were that all of them were enthusiastic and willing to learn. Some extracts from interviews in relation to this question provide ample evidence of the high regard in which college graduates were held and the positive views on the training they had received prior to entering the workplace:

- *Yes...they have done theory at college and it takes a while to apply it. They are assisted with on-the-job training. This adaptation can be tricky with Electrical Engineering but is smoother with Mechanical Engineering.*
- *Different workplaces have different systems, for example schematics, but the more repetition a student does the easier the job becomes.*
- *Yes. But we still send them on courses.*
- *Yes. He was also willing to work and learn ... He can phone different mentors if he needs help*
- *The N courses are excellent. They help a lot when students get to the work environment.*

Employers interviewed in this research did not note any specific differences among or preference for N3 or N4 qualifications. Employers hired Access Trust graduates with both qualifications as apprentices or trainees and some provided

the graduates with training in the workplace subsequently. In FETI research on engineering artisans in the Western Cape conducted in 2013 for the Provincial Department of Economic Development and Tourism, engineering employers specifically noted the need for FET College graduates to have a minimum of an N4 qualification in order to be productive in the workplace.

Employers were equally positive about college graduates' *positive attitudes* towards work, as extracts from the data indicate below:

- *X is a person who doesn't sit down, he likes progress. Sometimes a person can reach their scope easily but he walks the extra mile.*
- *He was a 'MacGyver'. He needed very little guidance. He was very good at repairing stuff but he was not tidy.*
- *...he asks questions if he is stuck whereas others don't. He asks how, when, why. If he is stuck he will come to me and explain what the problem is and what he had done to try and solve it. Not everyone knows everything.*
- *He is excellent.*
- *He is very eager and will climb Mount Everest if asked. Also, if we explain something to him he can do it.*
- *He was also willing to learn and quickly caught up with the systems of the company. He is one of our best workers.*

According to employers how could Colleges improve their training of the engineering students?

Employers in this study felt that the basic theoretical training given in the NATED courses was sufficient for students to access entry-level employment positions, although FETI's research on engineering artisans and apprentices in the Western Cape (2013) did reveal that engineering employers supported the NATED programmes, although some felt the N courses were out-dated and had not kept up with technological developments. Engineering employers also stressed the need for 'soft skills' such as costing, administrative and business ethics. This was reflected to

a lesser extent in this research, as employers felt the combination of N course and practical training was sufficient for entrance to the workplace.

Even though employers were extremely complimentary about the training that the students had received at their colleges and thought that it was adequate for entry into the workplace, they were keen to suggest how college training could be enhanced for the benefit of the student and the workplace. In this regard employers expressed some recommendations which are explained in their responses below:

- *A lot of colleges have their own practical area. However we would like to see them being more involved with companies. It would promote on-the-job training. It will help the students in the sense that when they start working with the company there will be no transition period. Also, when they come back to the college from on-the-job training, the college could give them assignments based on their experience. Colleges and companies need to work together a little more.*
- *Industry doesn't use all the theory that students learn at college. For example in the motor industry employees only have to change bearings and put them back together again. In the electrical field they don't use all that they have learned. College teaches them much more than they need and therefore they don't retain everything they learn. The extent of their theory is not needed unless they want to become engineers. However, this doesn't mean that colleges should water down what they are doing.*
- *If a company has production lines the theory helps more. However, the colleges cover all the bases.*
- *The colleges must focus on what brings in the money for technicians.*
- *Two technicians can do 40 cars in a day but then the CSI (Customer Service Index) is dropping; costing is not done correctly and, because of the volume, service is not effective.*
- *Work is not only about the practical part. Ethics and business practice are important. Employees need to deliver quality service to the dealership and to the customers.*

- *At the moment the electrical engineering courses do not have anything on fork lifts. Currently the training is done on engines, not on transmissions and controllers. It would be perfect if the course was more fork lift oriented.*
- *It's one thing to be a technician but employees also need product training.*
- *In Electrical Engineering there's always a new thing coming. Colleges must stay on top of the flow. They must be clued up about new stuff, new equipment. They must be on the ball.*
- *By providing career guidance and career pathing.*
- *On-the-job training is needed. They need 3 months in the workshop and 3 months theory...When students only do theory they move from college and know nothing.*
- *It would help to have a balance between theory and practice, for example with winding. It will prepare a guy to be ready when he goes to the field.*
- *If, during his training he had got workplace exposure it would have made a big difference...If students have exposure to the workplace then they will know what is expected of them in the industry.*
- *Workers who left school in Std 6 lack the basic language and Maths skills. They have all the capabilities but need training in Maths and language.*
- *Colleges need to train students in the basic use of hand tools and safety but this can also be done by industry for apprentices BUT industry needs guidelines like manuals and an instructor's handbook. These are almost impossible to find...they need a training manual which starts at Std 5 level.*

Although employers were highly complimentary about the Access Trust students employed in their workplaces and the preparation of these students for work, most employers were unaware of the work of the Access Trust. Employer comments were aimed at FET College students and did not reflect much knowledge of Access Trust interventions in this regard.

Colleges' views on NATED Courses and workplace preparation

College lecturers generally felt that students should try to complete an N4 qualification but acknowledged that N3 provided an adequate entrance into

apprenticeships. They supported the re-introduction of the N1-N3 courses after a moratorium was declared on these courses between 2007 and 2009.

On the issue of whether the 'N' courses prepared students sufficiently for their workplaces, college staff had serious reservations about N courses being 'too theoretical and not practical enough for the workplace'. They said in regard to this:

- *The N- course by itself is not enough "as you only fill the bag with theory". One needs the N course and the phases (CBMT), as students stood a better chance of getting a job if they got the practical and theory. It would also allow them to be more competent.*
- *The workplace wants the student to be productive immediately. N students have academic knowledge and thinking/problem-solving skills but not the practical. They need more.*
- *The theoretical (N) part is only one part of preparing students for the workplace. The practical component is crucial. If a student has completed the theoretical component AND the complementary practical component, then one has a more rounded individual who can immediately make a contribution to the workplace...but the simulated practical experience done at the college does help.*
- *They need the N course PLUS practical phases. N courses on their own do not prepare students for the workplace but if you combine the two (N + phases) then they are prepared. If students do the practical first then the theory makes more sense and they learn it quicker...*
- *The Phase (practical) is essential for work placement. When companies are looking to employ students they ask for N1 + Phase 1 or N2 + Phase 2. Not one company has asked for an NCV student. They don't want students who have sat in classrooms for three years.*
- *It is brilliant that the State has brought back the N courses. They are what industry requires.*

College staff felt that the Access Trust policy of funding both theoretical and practical components of training made a critical difference to the employability of these graduates.

In the opinion of college staff, how could the N courses be improved in order to prepare students better for the workplace?

College staff acknowledged that the N courses were good theoretical foundations for the students to move into the practical application but wanted practical exposure to be given to students while they were at the college. Lecturers also noted that the course syllabus has long been out-dated and needs review to bring it up to speed with developments in the field. For example a lecturer said:

At the moment they have a watered-down theory component. This is because it has not been reviewed and therefore no additions have been brought to the qualification. It also needs an integrated approach, for example, 6 months of integrated theory and practical...rather than separate theory and practical component... if their theory and practice is integrated they will understand better.
(The practice component being a CBMT course or a learnership)

Findings on Research Question 2: How did students perceive the relevance of the theory component with regard to practical application in the workplace?

Responses of students to this question were in agreement on the following. Direct quotes are italicised:

- *The theory preparation was 100% and the skills preparation was enough, however there are aspects that college training can't prepare one for, for example the pressure to meet targets; the processes and procedures in the workplace; the legislation and the importance of playing by the rules.*
- It was a very good foundation but in some areas it was a bit out-dated. Although some knowledge could be updated it was generally good enough across the board. In the workplace they were “updated on the latest products”.

Some of what we learned, such as working on points and condensers, is not used in the workplace.

- The theory gave her the background she needed. Compared to other apprentices – who had not been to college, she had “extra knowledge”.
- The practical at college was mostly about motors which a student said,

I didn't really need (that) in the workplace. However the hand skills helped.

- *Not all theory works with practical. Sometimes it's different. It's a new world and one needs full practical so that you know what is going on. One needs to see and ask questions and be willing to learn. It's all about attitude. If you have a positive attitude i.e. I am here to learn and to work it will help you.*
- The N6 enables workers to apply for higher positions. Eskom sends them on training courses and this makes them “self-confident”.

The student reported that he was confused at the outset, but as time went on he pushed himself to know what was going on. For example, he did research on the mechanical side of his job (on the electrical side, he had done light current at college and had done heavy current as part of his training with the company). In order to research the mechanical side he went to a public library. *The library had a computer and it was on the computer that I found information about how mechanical constructions work.*

The vast majority of students in the three cohorts were trained in Nated qualifications, but one student noted that the NCV engineering programmes provided much more theoretical knowledge. Even though the NCV combined theoretical and practical training in college workshops however, the student felt the practical training received was not sufficient for the workplace.

What additional knowledge or skills do you think would have assisted you in your job?

Although students were generally positive about the courses they had done at the College, they shared some ideas about what additional skills would have assisted them in the workplace:

- *Getting to know the work environment, for example by going to visit actual workplaces and spending a day or a couple of hours there. This would give students a feel for the workshop. They could listen to what mechanics say and see what kind of challenges they meet and how they address them.*
- Exposure to the workplace would also enable students to see how different products use different tools. They would become aware that for a company, the bottom line is profit and, for example, it might not be feasible at the time to buy tools – so they have to make their own tools.
- Visits to the workplace could provide a spark for students. It could motivate them, for example, if their dream is to work with cars, seeing an actual workshop could inspire them to learn.
- Sometimes students might wonder if they are on the right track or not. On a visit to a workshop they might see people doing what they enjoy. On the other hand, a visit to a workshop might make them realise that they are on the wrong track.
- It would help if the college could keep up with technology. The market is growing and things are change rapidly:
There is more auto technology these days for example, there are machines which one plugs in to diagnose faults.
- Do electronics in addition to refrigeration:
You can do anything if you have light current and heavy current
- *More skills in showing us how to adapt to the working world. At school and college we were always asking for help but at work we have to stand on our own two feet, for example, when a driver is on the road, he is responsible. When some people have to take responsibility they become scared of doing*

wrong things, that they won't do it right. They lose confidence. However, if the driver has skills he is likely to be more confident. The college could prepare students for the workplace by giving them more responsibility.

- A respondent said that if he had had some practical experience he would have felt more confident. He was scared in the beginning as he was expected to know how things worked in practice. However, he picked it up quickly.
- Agreements between universities are necessary so that if a student wants to study further, he can. One of the students had experienced many blockages in wanting to further his studies in Engineering at university.
- *It also depends on the person – how you conduct yourself at college and in the workplace. For example, if you study at college or are at the worksite but are not hard working it will impact on how you see things. Your attitude is important.*
- A student said that most things one learns with experience:
While working I realised why lecturers had said certain things.
- *At college we need a course on designing circuits.*
- *Knowing how to use the tools.* Some tools a student saw for the first time at work e.g. a lasering gun and a cable length meter.
- *Practicals, for example soldering, knowing the components, being able to use oscilloscopes, multimeters and so on.*
- *More fault finding skills*
- *Some admin skills and computer skills would have been of a great help as well.*

What else do you think the College could have done to prepare you for the workplace?

Though students were generally positive about their programme of study, they had some suggestions for the programmes as a whole. These included core skills like problem solving, additional support, curriculum adjustments in some courses, a gender component, a practical component and career exposure. Some of the recommendations are expressed below:

- The college could teach students how to research for information, for example, how to find a job, how to browse the Internet. He said: *a lot of mechanics is about finding information, particularly in the context of problem solving.*
- *Students who do refrigeration without electrical will struggle because 90% of the refrigeration problems are electrical.*
- *Extra classes would be a big help. The slower kids don't ask for help in the workplace either because they don't want to look like the weak link.*
- A student said that he likes work and he likes to study but he doesn't want to make a mistake. He tried to ask teachers for help after classes but often they were not available.
- *There could have been a bit more practical. The theory people could get the basics in practical.*
- *The college could give young students advice/guidance on what goes on in the workplace and what they can do about it.*
- *Human resources. There are lots of rules. We need to know how to do contracts. Students need to know this is what the law states*
- *Maybe job preparation skills.*
- *Perhaps prepare women students for sexism in the workplace*
- *Organise tours to the working stations just to familiarise one's mind with things.*

Findings on Research Question 3: How important was the support provided by the Access Trust project?

Access Trust staff views on the Project

Former staff members of the Access Trust provided valuable information on their experiences of the project, and the support given to college students by the project. Former staff members reported that support to students had included:

- Open lines of communication at all times – regular telephone contact with students
- Visits to colleges

- Assisting students to purchase their equipment
- 3 monthly visits to students
- Through the job readiness workshops offered by Access Trust graduates were prepared, through mock interviews, CV preparations, as well as where to look for jobs.
- Follow up of students in the workplace
- Support and guidance to student support officers through campus visits to give them an opportunity to discuss any academic, social or personal issues affecting the project students.
- Life-skills workshops for students.

A respondent reported that she had understood the college environment well and kept close communication with colleges. Advocacy of the project was done in schools and colleges. Lecturers usually recommended students for the Access Trust bursaries. Initially Access Trust had not done placements in the workplace as colleges mostly had people employed to do this, however, Access Trust later took on the placements role to a limited extent. Due to the good track record of students placed in employment by the Access Trust, employers began to take the initiative to call and ask about students for placement as they were reluctant to undertake a long recruitment process. In the opinion of the respondent, Access Trust should not undertake placements as this role could be duplicating the work of others (e.g. SETAs or colleges) and students were in the first instance 'college students'.

A Board member noted that the Access Trust has an uncomplicated model that builds relationships with young people from their specific contexts. She noted that the Access Trust had been required to appoint tutors, from within the colleges, for the 2002-2003 project to work with students but that this had been a 'disaster'. Technically, the lecturers were doing this on a voluntary basis, which made it difficult to monitor and the Access Trust had minimal recourse in the case of poor tutoring.

The Board member noted the critical importance of the SSACI Project and the impact this had on the Access Trust. The SACCI Project enabled the Access Trust to pilot a

student support model, which was then broadened to include all Access Trust students. A key intervention emanating from the SSACI Project was the establishment of a student helpline. Evaluations of this project conducted in 2008 and a subsequent larger evaluation also enabled the Access Trust to learn from the interventions and use this knowledge to improve their interventions with students. The Board member noted that at times donor driven agendas could be detrimental to a project, and cited a case where a donor sponsored a student for one year, but insisted that the selected individual was already in his/her final year, and that s/he required to be “available” to for employment in the event that there was a vacancy. Frequently this was not the case, and the student’s expectations had to be sensitively managed. She contrasted that scenario with the SSACI projects, where SSACI is viewed as a critical long term partner in the development of the Access Trust support interventions. The Access Trust now has a full time Student Placement and Support officer who deals with a range of problems experienced by bursars such as mediation of medical solutions, domestic violence issues and administrative problems. She noted “We find ourselves playing a parent role in many ways and students appreciate that.”

FET College staff views on the impact of the Access Trust project

Some college staff interviewed had experienced the Access Trust involvement in funding students when the organisation was known as Tecsat. A lecturer remembered a long association with Tecsat, and mentioned graduates who had been funded by Tecsat who were now successfully employed in their fields.

A staff member noted the critical role the subsequent Access Trust had played in funding students to complete their studies, and assisting with transport costs and safety gear. The role of employment assistance was particularly valued. Through the Access project they could also afford to do practicals which were very expensive. Colleges viewed the financial support for the CBMT phases as essential since this practical component was a valuable part of the training. Comments in this regard were:

- *Access Trust students have the opportunity of access into the practical phase and an exit to the workplace. Companies want students with hands-on experience and this is what Access Trust students will have.*
- *Without Access Trust many students would never have had the opportunity to study. At one time the only bursaries available to FET College students were Access Trust bursaries.*
- *With the Access Trust one could “go to the limit” by having both practical and theory...with this option it is better for the companies.*
- *With Access students companies are more eager to take them because, from the company point of view, it is short-term and no salary is involved. With long-term placement, companies are often reluctant as there is a cost to the company. As soon as companies have more responsibility it becomes more difficult to place students.*
- *Funded students are often a better type of student. Companies were more willing to take them on as Access Trust students had done a practical course and this gave them better options.*
- *The project managed to assist those who could not...and their lives have been improved.*
- *It's important that the Access Trust continue to support students. Although there has been a flood of money from the State for bursaries, not every student gets one. The Access Trust therefore plays an important role.*

Student views on how the Access Trust Project impacted their lives

This section of the data provided rich and textured feedback from the recipients of the Access Trust support. Students were emphatic and heartfelt in their responses to how their involvement in the Access Trust project had changed/impacted on their lives and their families. The stories below speak volumes (direct quotes in italics):

- *They (Access Trust) did a wonderful job and I wish they could help other poor people*

- A student reported that he had been raised by his grandmother on a pension of R528. She had four dependents and couldn't afford to send him to college. The Access Trust came to his rescue. Access Trust took a huge burden off his grandmother's shoulders and the bursary gave him a chance in life he never thought he would have. He had always wanted to be a mechanic whatever it took. He attended an Alumni ceremony in Johannesburg and was runner-up. He said that the Minister Blade Nzimande was there and he has a photo of himself with the Minister, a memory he cherishes. He is presently studying further doing Logistics and Supply Chain Management through Intec. He would *“like to give back to the community one day and share what I have learned with other students”*.
- *It has been a great part of my life. They started me from scratch. When I finished N6 I wanted to do the practical but it is SO expensive. My mother said I must work.*
- *One person at Access Trust bursary... if there was anything I needed I could give her a call. Access Trust gave us stationery, a uniform and books. They were amazing. Sometimes students don't appreciate the opportunities they get and they fail.*
- *Access Trust were so great. There was a woman (at Access Trust) who 'chose' this career for me...she asked if I wanted to study refrigeration and got me a bursary.*
- *Access Trust knew all the students and had a workshop for us which prepared us for interviews. It was fantastic.*
- *I never thought I would have the opportunity to study, I never thought I would see the workplace in such a different way. I got some experience of being a student.*
- *If it wasn't for them I wouldn't be here. They were willing to help and I needed their help. (He was determined to study further but his parents could not afford to educate him further. The financial support of Access Trust made this possible).*

- Another student said the support from Access Trust made him feel as if he were part of something bigger. He felt like part of a family. *"They were people who cared about you...that you met and loved. They were awesome. They still contact you to find out how you are doing."*
- A student reported that he had to get 50% per subject to retain the bursary and this inspired him to work hard. He ended up getting the highest mark in the country, 90%
- If he had any problems he could phone them and they would listen. *"Knowing that they worry about you motivates you – it keeps you on your toes."*
- A student said he is very grateful to the Access Trust. Before the Access Trust bursary he had been struggling to pay his fees and became discouraged when the college wouldn't release his results because he couldn't pay his fees.
- One young man said he didn't want to be like his parents, who were uneducated. He wanted to be successful and get a job after studying. Someone at Access Trust used to phone him after every quarter and find out how he was. He never met her but he appreciated the phone calls.
- If it wasn't for them he wouldn't be where he is. When he sees his former classmates from school they are either unemployed or working at places like call centres or in retail stores. They only have matric. The Access Trust gave him something that no-one can take away. He is always studying and has also started his own business (a security company).
- A female student said Access Trust had helped her chances – she was chosen for permanent employment. The practical at college was pricey and she saw that she couldn't fund it on her own. It was in the practical class at college that she had found out about the ACSA job. If she hadn't done the practical course she wouldn't have seen the ad and if she wouldn't have worked for ACSA. She said to tell the Access Trust *"thank you"*!
- *It opened opportunities for me. I can now stand for myself. I can say I know this.*
- *I have skills now that speak for me, on my CV. Employers can see that this is a guy we can call. When Access Trust called me I was working as a packer.*

- *I was staying with my sister, who is a domestic worker. I only had N1. My sister paid for N1. If I hadn't got the bursary I wouldn't have got to N6. I would have had to drop out at N2 or N3. Access Trust gave me support. They did me a very big favour. In my family I am the only one who went to college. Access Trust helped a lot. If I had no bursary I would have had to look for a job. I would have had to take anything.*
- *I am inspiration to younger students because of you (Access Trust).*
- *I am planning to finish my diploma next year.*
- *Thank you Access Trust!*
- *A student had a college loan but at the end of N5 was having difficulties with the loan and knew that he couldn't continue to N6. He reached a point where he had given up hope as it was only two days before applications closed. One of his classmates, an Access Trust bursary student, heard about this and gave him a card with the details of the Access Trust. He told him that he deserved help and told him to phone the number, which he did. Two days later he found himself registering for N6, with an Access Trust bursary. He said he would like to make a trip to Cape Town to personally say Thank You. As a result of his experience he is vocal with the youth in the Eastern Cape when they just sit around - he tells them that they don't know what they're missing out on. He said one of the problems is that information doesn't reach them.*
- *If it was not for Access Trust I wouldn't be where I am today. I did not have the money to go to school and Access Trust was there to help. I am so grateful for their support and funding me for my fee because one day I am going to be an electrician and be a better person.*
- *I believe I wouldn't be where I am right now if it wasn't for Access Trust. When I finished my N3, I had to sit at home because there were no funds for me to go further. I was then introduced to Access Trust by a friend of mine. That's when my situation changed. I got the bursary and was able to study further. Access Trust Project helped me not to give up on my career because the situation was forcing me to just give up. In everything I'm doing now I always*

remember where I come from and because of the Access Trust Project, I've grown in terms of success. For that I'm forever grateful.

- *When I came to the college I did not have money to carry on with my studies and after I passed my N2 I was advised by one of the lecturers to go to the Student Support room. I asked about financial assistance and I was told about Tecsat and I applied and the bursary helped me to finish my N6 level and I am very thankful to Access Trust Project.*
- *Mainly to know that your efforts are noticeable...showing that someone believes in you. [Access Trust] boosted my faith in me.*
- *It has certainly been a benefit to me. Firstly, giving me the ability to complete my theoretical part of my qualification and then the practical part too. The practical part has brought understanding to all that I have been taught in my theory. When I started my apprenticeship, I was at a great advantage compared to my fellow trainees because I understood so much already. All that was needed then was to build on those skills that I had already been taught. Thank you for that.*
- *Without them I wouldn't have been here. They gave me support when I needed it the most and I'm proud of myself not to let them down. Thank you.*

Challenges of the Access Trust project

Former staff interviewees mentioned that the project had experienced challenges initially in respect of finding workplaces for students, as the stipend was an issue for companies and Access Trust had identified the need for donor funding in this regard. While many companies were interested and supportive a former employee said, few had apprenticeship or internship opportunities given the current economic climate.

Another challenge was the need to provide mentors for students. Changes within FET college management also led to frustrations, as Access Trust spent considerable time re-building relationships with colleges where there was no institutional memory of past interventions. Long lasting relationships have been built with two FET Colleges in the Western Cape, but other colleges showed wavering levels of support to the Access Trust.

Initially the Access Trust relied strongly on FET College preparation and placement systems for students to access work but this is now being complemented by the Access Trust's own networks. This research did not specifically ask students how they had accessed their jobs. In the focus group research however, students indicated that the college noticeboards and lecturer networks were a major source of information for potential jobs and the Access Trust staff had also alerted them to jobs. There were some graduates who had found their own jobs through advertisements and/or accessing family networks. Despite this, it appeared that most employers of Access Trust graduates had little awareness of the roles played by Access Trust in securing employment for the students.

Positive aspects of the project according to Access Trust staff

With regard to the impact of the project, the former placement officer was of the view that:

- *The one-to-one relationship between Access Trust and students worked well. Often students won't talk to you if they are in a crowd, which is why it's best to meet one-to-one.*
- *There is evidence that students have benefited from the project.*
- *The college does not find itself in bad debt due to non-payment of fees.*
- *The employers benefit by getting good trainees.*
- *The pilot project attracted good students, a number of whom were girls.*

Another employee stated that "the project was not solely about giving money but walking alongside students on their journey".

Overall, said an employee, the project had successful outcomes in providing individual academic and social support to students, as well as a playing supportive and complementary role to colleges.

One of the Access Trust's significant successes is the fact that Access Trust graduates are a significant referral base, in that they refer fellow students to the Access Trust and encourage employers to employ Access Trust graduates.

DISCUSSION AND CONCLUSIONS FROM THE DATA

The relevance of college curricula for the workplace

This report has covered three areas of data viewed from different vantage points: the relevance of the NATED curricula to industry; students' experiences of the college programme in relation to their current employment; and the role played by the Access Trust programme.

Employers and colleges had slightly different views on the relevance of the NATED Engineering programmes for industry, with industry being more positive about the training that the students had gained at the college. Colleges were critical of the lack of practical experience and the out-dated curricula arguing that this would not be acceptable to industry. Colleges did however believe that the NATED programmes provided a strong theoretical foundation for students entering the workplace. Employers agreed with the sound knowledge base students had gained but were supportive of additional practical learning, work exposure and, in some cases, more job specific skills. The views of employers in the survey, in contrast with those of the college, operated on the understanding that the college provided the theoretical base and that students would then learn further on the job.

Some employers did however mention that more 'soft skills' were needed and proposed changes to the curriculum that entailed more work exposure, more updated or job specific knowledge, and career guidance. Employers generally appeared to regard these suggestions as improvements to the curriculum rather than fundamental flaws. Employers were in fact extremely complimentary not only of the training that students had received in the NATED programmes but also of the attitudes of college graduates themselves as enthusiastic and willing to learn. An insightful suggestion from employers was that college students should be exposed to the industry during the course of their college training and not only at the end. The logistics of this should be explored in the light of this willingness to accommodate students.

Students' views of the NATED programme were likewise positive. Students felt that the NATED programme provided a good theoretical foundation, but could not prepare them for all eventualities in the workplace, and students would need to continue to learn at the workplace. As with the other stakeholders, students felt that the programme could benefit from increased workplace exposure during the course of their college programme, updated content knowledge, support for the 'soft skills' (e.g. being responsible), and in some cases additional content. However this did not seem to deter their confidence in the value of the programme.

Appendix A, a quantitative analysis of the Access Trust graduate interviews, shows that the majority of graduates had received practical training in addition to the NATED programmes. The analysis of student qualifications and practical training also shows that students with lower technical qualifications and practical training did not always obtain jobs in areas that they had been trained in. Of further interest is that graduates with no practical training who obtained jobs generally had higher levels of theoretical training (e.g. N5-N6). This data therefore supports the importance of N-3-N4 qualifications **with** practical training for entrance into jobs relating to the training which graduates had received.

The role of the Access Trust project

There was overwhelming and sincere support for the role that the Access Trust had played, not only of the financial support for the student, but also of the model, including endorsement of aspects of the model that the Access Trust respondents considered duplication of the college role. Students appreciated that the project went beyond simply covering education fees, to taking an interest in the students' completion and connecting students to the workplace or further study. Many students pointed out that their lives would have taken very different trajectories were it not for the Access Trust as they could not have afforded the fees. Students were extremely grateful for this.

Moreover, students appreciated the personal attention and follow up support that they received from the Access Trust. In spite of a view expressed by an Access Trust

respondent that their work placement role might duplicate efforts by the college in that regard, Colleges indicated that the Access Trust 'brand' had assisted students in obtaining work post-studies because of the connections that the Trust had made, and because funded students had already shown themselves to be a 'better type' of student. Access Trust students were also supported to obtain practical training through funding of the CBMT practical phases, which lecturers regarded as invaluable for providing the practical training that was not part of the Nated programmes. This was strongly echoed by employers.

The findings in this research dovetail with that of other research projects on completion and transitions to the workplace or further studies from FET colleges. The Access Trust model has addressed some of the shortcomings referred to in the literature where it has been shown that, without support, students have not been able to connect with jobs (Cosser, 2003a; Gewer, 2010b) and have generally done so through family and friends (Cosser, 2003; Gewer, 2010). Access Trust provided vital social capital to students who had minimal resources and networks to draw on for employment.

In the cases of the graduates in this study, the Access Trust model appears to have addressed both issues raised in the literature. First, it connected students strongly to the workplace through enabling students to find work in areas relevant to their training. Second, through rigorous selection processes, holistic financial support, guidance and training in the 'soft skills' (job preparation, CV writing), follow up of the person beyond providing funding, the provision of practical training and work exposure - students were successful in their studies and later proved to be employees worthy of respect and admiration in their places of work.

Conclusion

This research has focused on the impact of the SSACI funded intervention for Access Trust graduates in obtaining employment and the relevance of college curricula for employment. A unique feature of this funding intervention is the funding of both theoretical and practical training, which enabled graduates to find employment.

Mainstream National Student Financial Aids Scheme (NSFAS) to FET Colleges for Nated programmes does not fund practical training. While employers were glowing about the quality of the graduates, they for the most part did not seem aware that external funding had allowed the N course graduates to get supplementary practical training through the CBMT.

The relevance of the college curricula for employment was generally seen as positive by engineering employers. Key suggestions for improvement however noted the need for increased industry-college interface, as graduates were not seen as 'work ready' even though employers were generally happy with the quality of their college training. Curricula mismatches were also noted, where outdated theoretical training and processes (e.g. condensers in electrical engineering) were provided that were no longer relevant within industry. Some employers and graduates expressed concern that colleges were not keeping up to speed with technological change. College staff echoed this and cited the lack of revision of Nated programmes over time as a problem. Comments were also made on the sequencing of learning, with some graduates advocating practical training should be implemented before theoretical training was done as this would help students to apply theory to practice. The integration of theoretical and practical training at one FET College was widely acknowledged as an excellent form of training by Access graduates, and appeared to be reinforced by some employers' wanting to see closer contact between the student and the workplace before graduation.

The introduction of 'soft' skills, such as basic accounting, ICT, attitudinal skills and career guidance was noted as additional competences needed by apprentices and artisans. Concerns with levels of Maths and Language skills were noted for progression to higher technical qualifications.

Emerging recommendations from the Phase 1 research

1. The need for sufficient practical training and workplace exposure was echoed by employers, college staff and students. In particular, the addition of CBMT phase training supported by the SSACI funding was seen by

college staff as a crucial addition to the theoretical NATED courses and which greatly enhanced the work-readiness of the SSACI funded students. Employers clearly felt the benefits of this model, hence their positive impressions of the college training received by the students.

2. Engineering employers were impressed with the theoretical basis provided by the 'N' programmes as a qualification route into employment. However, the need for modernisation of the curricula to bring it into line with advances in technology was noted. Current curricula reform processes should take account of the credibility that the NATED courses still have in the workplace.
3. The inclusion in the theory-practice model of actual workplace exposure during the course of the college training programme has been put forward by employers, and the possible logistics of including 'on-the job' training' will need to be explored. In this regard, the recent incentives for PIVOTAL funding involving public-private education and training partnerships should be investigated as a potential mechanism to integrate theoretical and practical training.
4. The personal and interpersonal 'softer' skills should continue to be given attention in college training – employers were quick to notice where graduates demonstrated such positive attributes, and the inclusion of soft skills training should be given on-going support as they do not necessarily form part of NATED or CBMT training courses.

Access Trust's support in providing work placement and the identification of jobs also had a major impact. FET College staff showed strong support for the Access Trust, not least because it improved their throughput rates and that the Access Trust contributed to building the esteem of the FET Colleges. College staff noted that the funding of theoretical and practical training made these graduates much more employable and staff were able to use their networks with business and industry to place students. Employers were highly complimentary about the quality of the Access Trust graduates and their attitudes to work, but were largely unaware of the Access Trust's interventions with these students. In sum, it could be positively stated that the

intervention of the SSACI-funded model through supplementary practical training enhanced the employment outcomes for FET college graduates in the project.

These findings will be further analysed in the final research report that includes the 4th cohort of students in 2014.

LIST OF REFERENCES

- Akoojee, S. (2010). Skills development and disempowerment: workplace skills transfer in trying economic times. In J. Hofmeyer (Ed.), *Vision or Vacuum - Governing the South African economy* (pp. 88-96). Cape Town: Institute for Justice and Reconciliation.
- Allais, S. M. (2012). Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. *International Journal of Educational Development*, 32(5), 632–642.
- Badroodien, A. (2003). Local labour environments and FET colleges: Three case studies. In M. Cosser, S. McGrath, A. Badroodien, & B. Maja (Eds.), *Technical college responsiveness - learner destinations and labour market environments in South Africa*. Cape Town: HSRC Press.
- Breier, M. (2009). Introduction. In J. Erasmus, & M. Breier (Eds.), *Skills shortages in South Africa*. Cape Town: HSRC Press.
- Cosser, M. (2003). Graduate tracer study. In M. Cosser, S. McGrath, A. Badroodien, & B. Maja (Eds.), *Technical college responsiveness - learner destinations and labour market environments in South Africa*. Cape Town: HSRC Press.
- Cosser, M. (2003a). Graduate tracer study. In M. Cosser, S. McGrath, A. Badroodien, & B. Maja (Eds.), *Technical college responsiveness - learner destinations and labour market environments in South Africa*. Cape Town: HSRC Press.
- Cosser, M., Kraak, A., & Winaar, L. (2012). *FET colleges audit May to June 2010*. Cape Town: HSRC Press.

- DHET. (2010). Outcome 5 - A skilled and capable workforce to support an inclusive growth path. *Measurable performance and accountable delivery: Outputs and measures*. Pretoria: Government Printers.
- DTI. (2011). *National Skills Accord*. National Accord signed 11 July 2011.
- Duncan, K. (n.d.). *Making a Success of a "Cross-Cultural Marriage": Lessons for Colleges, Industry & Government In Implementing Workplace-Based Training at FET Colleges*. Slide Presentation made to Conference.
- FET Institute. (2013). *Supply and demand for artisans in the Western Cape: Final Report*. Study conducted for the Department of Economic Development and Tourism (DEDAT).
- Gewer, A. (2009). *Features of social capital that enhance the employment outcomes of FET college learners*. D Phil Thesis, Wits University, Faculty of Humanities.
- Gewer, A. (2010a). *Choices and chances: FET colleges and the transitions from school to work*. Report on FET research study for NBI.
- Kraak, A. (2004). Rethinking the high skills thesis in South Africa. In A. Badroodien, S. McGrath, A. Kraak, & L. Unwin (Eds.), *Shifting understandings of skill*. Cape Town: HSRC Press.
- Kraak, A. (2009). *Understanding differentiated demand for skills in the South African economy: The relevance of segmented labour market theory*. ECSECC Working Paper Series No. 7.
- Kruss, G., Wildschut, A., Janse van Rensburg, D., Visser, M., Haupt, G., & Roodt, J. (2011). *Developing skills and capabilities through the learnership and apprenticeship pathway systems*. (Department of Labour (DoL), October). Cape Town: HSRC Press.
- Maja, B., & McGrath, S. (2003). Employer satisfaction. In M. Cosser, S. McGrath, A. Badroodien, & B. Maja (Eds.), *Technical college responsiveness - learner*

destinations and labour market environments in South Africa. Cape Town: HSRC Press.

Marock, C. (2006). *Case study 6 - The College Industry Program.* Report commissioned by GTZ and NBI.

Marock, C. (2011). *A review of FET college partnerships and linkages.* Report prepared for the Swiss South African Co-operation Initiative (SSACI), Singizi Consulting.

McGrath, S., Needham, S., Papier, J., Wedekind, V., Attwal, H., Calitz, M., et al. (2010). *Employability in the college sector: a comparative study of England and South Africa.* London: British Council.

Mukora, J. (2008). *Scarce and critical skills research project: Artisans/Trades.* HSRC. Pretoria: DoL.

Mukora, J., Visser, M., Roodt, J., Arends, F., Molefe, M., & Letseka, M. (2008). *Impact assessment of learnerships and apprenticeships.* Report commissioned by MERSETA.

NBI. (2003). *Further education and training colleges linkages and partnerships: An audit 2003.* Pretoria: Department of Education.

SSACI. (2010). *Providing workplace-based experience for FET college students: a manual for college managers and lecturers.* Houghton: SSACI.

Taylor, N., & Parrera, C. (2004). *The role of college-industry partnerships in ensuring graduate employability.* Project Commissioned by the Gauteng Provincial Legislature.

Wildschut, A., Kruss, G., Janse van Rensburg, D., Haupt, G., & Visser, M. (2011). *Learnerships and apprenticeships survey 2010: technical report: identifying transitions and trajectories through the learnership and apprenticeship systems.* Cape Town: HSRC Press.

APPENDIX A - Quantitative data on Access Trust graduates for Phase 1 of FETI research

(Note that the students and the companies have not been named in order to protect confidentiality)

Graduates	Exit Education level	Number of employed graduates	Company	Type of employment	Nature of employment (permanent, temporary etc.)	How did get graduates obtain jobs	Grade 12 or Grade 9	Other qualifications
1.	N4 P1 Electrical	Yes	Defence company	Electrical apprentice	Permanent (4 year contract)	-	Gr 12	N/A
2.	N6 P1 Electrical	Yes	Transport parastatal	Electrical maintenance	Temporary	-	Gr 12	N/A
3.	N3 P2 Electrical	Yes	Internet company	Electrical test technician	Permanent	-	Gr 12	N/A
4.	N6 P1 (Level 3 practicals in employment) Electrical	Yes	Electrical parastatal	Electrical apprentice	Permanent (3 year contract)	-	Gr 12	N/A
5.	N5 P1 Electrical	Yes	Electrical parastatal	Electrician	Permanent	-	Gr 12	N/A
6.	N6 Level 2 Electrical	Yes	Electrical parastatal	Engineering assistant	Permanent	Saw a job advertised as college notice board	Gr 12	N/A
7.	N3 P2 2011 Electrical	Yes	Electrical parastatal	Electrical maintenance	Permanent - Trainee		Gr 12	NCV level 2-4 2008-2010

8.	N3 Level 3 Electrical	Yes	Government Dept Social*	Grant administrator	Permanent	-	Gr 12	N/A
9.	N3 P3 Automotive	Yes	Government Dept	Garage workshop manager	Permanent	-	Gr 12	N/A
10.	N6 Level 3 Electrical N2 L3 Refrigeration	Yes	Refrigeration company	Semi-skilled technician	Permanent	College lecturer notified him of job	Gr 12	N/A
11.	N1 level 2 Electrical	Yes	Transport company	Driver**	Permanent	-	Gr 12	N/A
12.	N 3 Automotive (Practicals obtained in employment)	Yes	Automotive company	Senior mechanic	Permanent	-	Gr 12	N/A
13.	N6 Electrical	Yes	Electrical parastatal	Technician*** Light current	Permanent	-	Gr 12	N/A
14.	N5 P2 Electrical	Yes	Automotive company	Forklift technician*** *	Permanent	-	Gr 12	N/A
15.	N6 Level 3 Electrical	Yes	Electrical parastatal	Apprentice electrician	Temporary - apprentice	-	Gr 12	N/A
16.	N4 level 3 Electrical	Yes	Airport	Electrical assistant	Permanent	Saw advert at college and applied	Gr 12	N/A
17.	N4 Level 3 Electrical	Yes	Local government	General electrical worker	Permanent	-	Gr 12	N/A
18.	N5 Electrical	Yes	Local government	Electrical apprentice	Permanent	-	Gr 12	N/A
19.	N6	Yes	Electrical	Technical	Permanent	-	Gr 12	N/A

	Electrical		parastatal	official				
20.	N6 P3 Electrical	Yes	Electrical company	Electrician	Permanent?	-	Gr 12	N/A
21.	N5 Electrical	Yes	Transport parastatal	Diesel electrical fitter	Permanent	-	Gr 12	N/A
22.	N3 level 1 Electrical	Yes	Transport parastatal	Shunting official*****	Permanent	-	Gr 12	N/A

* She explained that she couldn't find a job in electrical engineering which is why she took the SSASA job. She is still trying to get a job in electrical engineering. Last year she got a learnership at Transnet but because she is the breadwinner she couldn't take it – especially as it was a 3 year learnership. Her mother is on her medical aid and her brother and nephew are still studying. The learnership paid R1600 per month which wasn't enough.

** Would like to come back to college but struggled academically.

*** Trained in heavy current but got a job in light current

**** Always wanted to work in electrical but company channelled him into mechanical. He is now being offered an electrical opportunity within the company

***** She took the shunting job as this was the first job she was offered and now feels she has been out of the electrical field for too long.