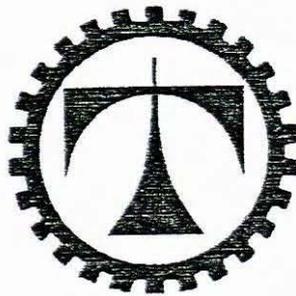


**CAREER AWARENESS FOR GRADE NINE LEARNERS
WITH REGARD TO ENGINEERING TRADE CAREER
CHOICES AT PREVIOUSLY DISADVANTAGED
ACADEMIC SCHOOLS.**

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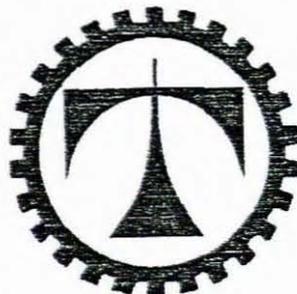
**Thesis submitted in part-fulfillment of the requirements of the degree of M-Tech
(Education Management) in the Faculty of Science at Peninsula Technikon**

Title: Career awareness for grade nine learners with regard to engineering trade career choices at previously disadvantaged academic schools.

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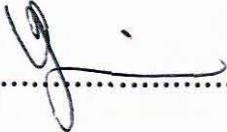
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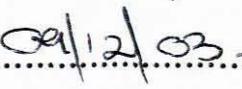
Date of submission: 10 December 2003



STATEMENT OF ORIGINALITY

**The contents of this thesis represents my own work and the opinions contained
therein are my own and not those of Peninsula Technikon**

Signature:.....

Date:.....

Acknowledgements

December 2003

When I look back over the years from the time when I started high school in 1969 to this present moment, I see my career and the many problems I faced trying to make the right choices. It took me nearly 15 years to finally choose a career that suited me. When I compare the problems that I had in choosing a career at that time to the problems that learner's face today in choosing their careers, nothing much has changed. It is precisely this reason that inspired me to do this research.

I would firstly like to thank Jeremy Koeberg who encouraged me to do this degree and Dr. Beatie Thuysma for her encouragement and support. If it wasn't for Jeremy's nagging I most probably would not be writing this acknowledgement. I would also like to thank Phumla Kese who inspired me to complete my proposal. A special thanks goes out to Janine Joseph and Joy Powrie who encouraged me from time to time to stay on track. Thanks also goes to Peninsula Technikon and the NRF for the financial support I enjoyed. I must also thank my wife Daphne Winn who had to tolerate my endless discussions about career awareness. She supported and encouraged me to the end. Finally I would like to thank my supervisor Dr. Chris Winberg who was always there when I needed advice and support. Her response time to my many emails and the encouraging way that she dealt with my work inspired me to work even harder.

Abstract

Currently in South Africa most learners attend academic schools that offer general subjects such as History, Geography, Biology, Accountancy and so on. There are considerably fewer technical schools that can absorb those individuals who want to pursue an engineering trade career path. Academic schools are not equipped to provide for learners who want to pursue engineering trade careers. These learners either fall by the wayside by leaving school prematurely, or they continue at the school through to matric with subjects that are not linked to engineering careers. This study attempts to determine the knowledge, understanding, attitude and perception of the learners, parents, educators, principal, and the WCED with regard to this problem. It is intended through this study to make recommendations that will lead to meaningful interventions in an attempt to rectify the current situation.

The findings indicate that learners do not have an understanding of engineering careers and are more inclined to choose the more traditional careers such as teacher, doctor, lawyer, nurse etc. Because their career options are limited, many learners are unsure of what careers to choose while others end up choosing careers that are not suited for them. The parents are not knowledgeable enough and do not possess the necessary skills to assist their children with their career choices. Teachers at academic schools themselves had an academic education. As a result they are not aware of engineering careers and are not empowered to advise the learners. The principal, who is also an academic, has to consider the implication of making learners aware of engineering careers, because this could lead

to an exodus of students from the school. He is under pressure from the WCED to maintain the required teacher – student ratios. The findings indicate that the WCED has initiated various programs around careers, but nothing specific with regard to career awareness. It is evident that these programs have not filtered through to this school.

The methodology for this research incorporated a multi-method approach with both quantitative and qualitative instruments used. Questionnaires were directed at learners, educators and the parents. Focus group sessions were conducted with the learners and educators and interviews were directed at the principal and the WCED official. The study concludes with recommendations drawn from international models.

TABLE OF CONTENTS

Statement of originality	I	
Acknowledgements	II	
Abstract	III	
List of graphs	XX	
Appendices	XXI	
1	Introduction	1
1.1	Background	2
1.2	Problem statement	3
1.3	Rationale	4
1.4	Hypothesis	4
1.5	Research questions	4
1.6	Research objectives	5
2	Literature review	6
2.1	Definition	6
2.2	Career awareness as a National Economic need	6
2.3	Seeing career awareness as a process	7
2.4	High cost of inadequate or no career awareness	8
2.5	Barriers to career awareness	9
2.6	Successful career interventions	10
2.7	Career awareness as part of the school curriculum	11

2.8	NQF (National Qualifications Framework)	13
3	Research methodology	14
3.1	Introduction	14
3.2	Research design	14
3.3	Data production methods	15
3.3.1	Data sources	15
3.3.2	Sampling	16
3.3.3	Questionnaires	17
3.3.4	Interviews	18
3.3.5	Policy documents	20
3.3.6	Delimitation	20
3.3.7	Data collection procedure	20
3.4	Data analysis methods	21
3.4.1	Questionnaires	21
3.4.2	Interviews	21
3.4.3	Synthesis	21
3.5	Ethical issues	22
4	Research findings (Introduction)	23
4.1	Findings from learner questionnaires	23
4.1.1	Career awareness programs running at the school	23
4.1.2	The frequency of career awareness occurring at the school	24
4.1.2.1	People coming to the school to talk about their careers	24
4.1.2.2	Learners approaching teachers about career awareness issues	24

4.1.2.3	Learners attending career exhibitions	25
4.1.2.4	Learners working on projects about jobs	25
4.1.2.5	Learners going on field trips to see people doing different jobs	26
4.1.2.6	Learners job shadowing	26
4.1.2.7	Learners using computers for career purposes	27
4.1.2.8	Learners doing career research	27
4.1.2.9	Teacher talking to learners individually about careers	28
4.1.2.10	Parents talking to learners about career issues	28
4.1.2.11	Learners talking to school friends about career issues	29
4.1.3	The learner's knowledge of the engineering field	29
4.1.4	The learner's opinion as to whether people in engineering can earn more than people in other professions	29
4.1.5	The learner's general awareness of career issues	30
4.1.6	Career awareness initiatives that could be implemented at the school	30
4.1.7	The learner's interest in a career in the engineering field	31
4.2	The findings from the learner focus group session	31
4.2.1	Learners knowing what they want to be when finishing school	32
4.2.2	Learners talking to their parents about what they want to be	32
4.2.3	The type of work the learner's parents do	33
4.2.4	Learners talking to their parents about careers	33
4.2.5	People coming to the school to talk about their careers	33
4.2.6	The best job in the world	34

4.2.7	The learner's knowledge of the engineering trades	34
4.2.8	<i>Interest in trades in the engineering field</i>	34
4.2.9	Seeing engineering trades as inferior to other professions	35
4.2.10	The learner's knowledge of technical colleges	35
4.3	Findings from parent questionnaires	36
4.3.1	<i>Involvement in career awareness issues</i>	36
4.3.2	What their children want to become	36
4.3.3	<i>Engineering field versus the academic field with regard to earnings</i>	36
4.3.4	Parent's knowledge of engineering trades	36
4.3.5	Careers that parents wanted for their children and some of the reasons for their choices	37
4.3.6	Degree of parent's awareness	38
4.3.7	Parent's opinion about career awareness initiatives that could be implemented at schools	39
4.4	Findings from educator questionnaires	39
4.4.1	Technical career awareness programs currently running at the school	39
4.4.2	Attending of career exhibitions	40
4.4.3	Academic schools preparing learners for technical careers	40
4.4.4	Artisans such as welders, fitters etc, earning more than doctors and lawyers	40

4.4.5	Technical career awareness initiatives implemented by the educators	40
4.4.6	Career awareness initiatives that could be implemented at the school	41
4.4.7	Frequency of career awareness interaction at disadvantaged schools	42
4.4.7.1	People talking about their careers	42
4.4.7.2	Students approaching educators about career issues	43
4.4.7.3	Educators freely giving career advice	43
4.4.7.4	Parents approaching educators about career issues	43
4.4.7.5	Educators discussing career issues with their colleagues	44
4.4.8	The educator's knowledge of the engineering field	44
4.4.9	Degree of educator's awareness	44
4.4.10	Educator's opinion about career awareness	45
4.5	Findings from educator's focus group	46
4.5.1	Career awareness programs running at the school	47
4.5.2	Whose responsibility is it to provide for career issues	47
4.5.3	When should career awareness start	48
4.5.4	Career awareness as an on going process	48
4.5.5	Educators attending career exhibitions	48
4.5.6	The school preparing learners for the engineering field	48
4.5.7	Educators implementing career awareness initiatives at the school	49
4.5.8	Educators encouraging learners to pursue an engineering career	49

4.5.9	Artisans earning more than people in other professions	49
4.5.10	Career awareness as a priority at all schools	49
4.5.11	Educators as career guidance counselors	50
4.5.12	Educator job shadowing	50
4.5.13	Learners job shadowing	50
4.5.14	Career awareness as part of the school curriculum	51
4.5.15	Learners being channeled to a technical college	51
4.5.16	People coming to the school to talk about their careers	51
4.5.17	Students approaching educators about career issues	52
4.5.18	Parents approaching educators about career issues	52
4.5.19	Career issues discussed in the staff room	52
4.5.20	Career issues as part of a meeting agenda	52
4.5.21	Learners who are not able to make it to matric	53
4.5.22	The educator's general awareness of career issues	53
4.5.23	The role of WCED	53
4.5.24	The educators general opinion about career awareness	54
4.6	Findings from principal's interview	55
4.6.1	Career awareness programs offered at the school	55
4.6.2	Attending career exhibitions	56
4.6.3	The school preparing learners for the engineering field	56
4.6.4	Artisans earning more than people in other professions	57
4.6.5	Career awareness as a priority at all schools	57
4.6.6	Educators as career guidance counselors	57

4.6.7	Teachers job shadowing	58
4.6.8	Career awareness as part of the school curriculum	58
4.6.9	Learners wanting to pursue an engineering career being channeled to a technical college	58
4.6.10	Academic schools making provision for learners who want to pursue an engineering career	59
4.6.11	Who should be responsible for the provision of career awareness	59
4.6.12	The frequency of career awareness occurring at the school	59
4.6.13	The principal's knowledge of the engineering field	60
4.6.14	The principal's general awareness of engineering careers	61
4.6.15	The principal's general opinion of career awareness	61
4.7	Findings from WCED official's interview	61
4.7.1	Introduction	61
4.7.2	Career awareness programs running at previously disadvantaged schools	62
4.7.3	The role of WCED with regard to career awareness	62
4.7.4	Policy documents that deal with career awareness	62
4.7.5	Whose responsibility is it to ensure that the learners are made aware of the multitude of career opportunities available to them	62
4.7.6	When should career awareness begin	63
4.7.7	Should career awareness be an on going process	63
4.7.8	WCED's involvement with career exhibitions	63
4.7.9	Do academic schools prepare learners for the engineering field	64

4.7.10	Artisans earning more than people in other professions	64
4.7.11	Career awareness as a priority at all schools	64
4.7.12	Educators as career guidance counselors	64
4.7.13	Educators job shadowing	65
4.7.14	Learners job shadowing	65
4.7.15	Learners wanting to pursue an engineering career being channeled to a technical college	65
4.7.16	Academic schools providing for learners who want to pursue an engineering career	65
4.7.17	The frequency of career awareness issues being discussed at WCED	66
4.7.18	A general awareness of career issues	66
4.7.19	GET (General Education and Training) linking up with FET (Further Education and Training)	66
4.7.20	Filtering of career awareness information to all stakeholders	67
4.8	Conclusion: Trends emerging from the findings	67
5.	Analysis of the data	70
5.1	Introduction	70
5.2	Analysis of the findings from the learner questionnaires	70
5.2.1	Career awareness running at the school	70
5.2.2	The frequency of career awareness interaction occurring at the school	71
5.2.2.1	People coming to the school to talk about their careers	71

5.2.2.2	Learner approaching their teachers about career issues	71
5.2.2.3	Learners attending career exhibitions	72
5.2.2.4	Learners working on projects about jobs	72
5.2.2.5	Learners going on field trips	72
5.2.2.6	Learners job shadowing	73
5.2.2.7	Learners using computers for career purposes	73
5.2.2.8	Learners doing career research	74
5.2.2.9	Teacher talking to learners individually about careers	74
5.2.2.10	Parents talking to learners	74
5.2.2.11	Learners talking to school friends about careers	75
5.2.2.12	The learner's knowledge of the engineering field	75
5.2.2.13	The learner's opinion as to whether people in engineering can earn more than people in other professions	75
5.2.2.14	The learner's general awareness about technical career issues	76
5.2.2.15	Career awareness initiatives that could be implemented at the school	76
5.2.2.16	The learner's interest in a career in the engineering field	77
5.3	Analysis of the findings from the learner's focus group	78
5.3.1	Learners knowing what they want to be when finishing school	78
5.3.2	Learners talking to their parents about what they want to be	78
5.3.3	The type of work learner's parents do	78
5.3.4	Learners talking to their teachers about careers	79
5.3.5	People coming to the school to talk about their careers	79

5.3.6	The best job in the world	80
5.3.7	The learner's knowledge and interest about engineering trades	80
5.3.8	Learners seeing engineering trades as inferior to other professions	81
5.3.9	The learner's knowledge of technical colleges	81
5.4	Analysis of the findings from the parent questionnaires	81
5.4.1	Parent involvement in career awareness issues	82
5.4.2	What their children want to become	83
5.4.3	Parent's opinion of whether people in the engineering field can earn more than people in other professions	83
5.4.4	Parent's knowledge of engineering trades	83
5.4.5	Careers that parents wanted for their children	84
5.4.6	The degree of parent's awareness about technical career issues	84
5.4.7	Parent's opinion about career awareness initiatives that could be implemented at schools	85
5.5	Analysis of the findings from the educator questionnaires	85
5.5.1	Technical career awareness programs currently running at the school	86
5.5.2	Educators attending of career exhibitions	86
5.5.3	Academic schools preparing learners for technical careers	86
5.5.4	The educator's opinion as to whether people in engineering could earn more than people in other professions	87
5.5.5	Technical career awareness initiatives implemented by educators at the school.	87

5.5.6	Career awareness initiatives that could be implemented at the school	88
5.5.7	The frequency of career awareness interaction occurring at the school	88
5.5.7.1	People talking about their careers	88
5.5.7.2	Students approaching educators about career issues	89
5.5.7.3	Educators freely giving advice	89
5.5.7.4	Parents approaching educators about career issues	89
5.5.7.5	Educators discussing career issues with their colleagues	90
5.5.7.6	The educator's knowledge of the engineering field	90
5.5.7.7	The degree of educator's awareness of general technical career issues	90
5.5.7.8	The educator's opinion about the issue of career awareness	91
5.6	Analysis of findings from educator's focus group	91
5.6.1	Career awareness programs running at the school	91
5.6.2	Whose responsibility is it to provide for career awareness	92
5.6.3	When should career awareness start	92
5.6.4	Educators attending career exhibitions	92
5.6.5	The school preparing learners for the engineering field	93
5.6.6	Teachers implementing career awareness initiatives at the school	93
5.6.7	Educators encouraging learners to pursue engineering career paths	93
5.6.8	Artisans earning more than people in other professions	94
5.6.9	Career awareness as a priority at all schools	94

5.6.10	Educators as career guidance counselors	95
5.6.11	Educators job shadowing	95
5.6.12	Learners job shadowing	95
5.6.13	Career awareness as part of the curriculum	96
5.6.14	Learners being channeled to a technical college	96
5.6.15	People coming to the school to talk about their careers	97
5.6.16	Students approaching educators about their careers	97
5.6.17	Parents approaching educators about career issues	97
5.6.18	Career issues as a discussion topic at school	98
5.6.19	Learners who are not able to make it to matric	98
5.6.20	The educator's general knowledge about career issues	98
5.6.21	The role of WCED	99
5.6.22	The educator's general opinion about career awareness	99
5.7	Analysis of the findings from the principal's interview	100
5.7.1	Career awareness programs offered at the school	100
5.7.2	Attending career exhibitions	101
5.7.3	The school preparing learners for the engineering field	101
5.7.4	Artisans earning more than people in other trades	102
5.7.5	Career awareness initiatives being implemented at the school	102
5.7.5.1	Career awareness as a priority at all schools	102
5.7.5.2	Teachers as career guidance counselors	103
5.7.5.3	Teachers job shadowing	103
5.7.5.4	Career awareness as part of the curriculum	104

5.7.5.5	Learners wanting to pursue an engineering career being channeled to a technical college	104
5.7.5.6	Academic schools making provision for learners who want to pursue an engineering career	105
5.7.6	Who should be responsible for the provision of career awareness?	105
5.7.7	The frequency of career awareness occurring at the school	106
5.7.7.1	People talking about their careers	106
5.7.7.2	Learners approaching the principal about career issues	106
5.7.7.3	Parents approaching the principal about career advice for their children	107
5.7.7.4	Getting together with his staff to discuss career issues	107
5.7.8	The principal's knowledge of the engineering field	108
5.7.9	The principal's general awareness of engineering career issues	108
5.7.10	The principal's general opinion about career awareness	108
5.8	Analysis of the findings from the WCED official's interview	109
5.8.1	Career awareness programs running at previously disadvantaged schools	109
5.8.2	The role of WCED with regard to career awareness	110
5.8.3	Policy documents that deal with career awareness	111
5.8.4	The responsibility of ensuring that learners are made aware of career opportunities	111
5.8.5	When should career awareness begin	111
5.8.6	Career awareness as an on going process	112

5.8.7	WCED's involvement with career exhibitions	112
5.8.8	Academic schools preparing learners for the engineering field	113
5.8.9	<i>Artisan earning more than people in other professions</i>	113
5.8.10	Career awareness as a priority at all schools	113
5.8.11	Educators as career guidance counselors	114
5.8.12	Educators and learners job shadowing	114
5.8.13	Learners being channeled to a technical college	114
5.8.14	Academic schools providing for learners who want to pursue an engineering career	115
5.8.15	The frequency of career awareness being discussed at WCED	115
5.8.16	A general awareness of career issues	115
5.8.17	GET (General Education and Training) linking up with FET (Further Education and Training)	116
5.8.18	How career awareness information is filtered to all stake holders	116
5.9	Conclusion: Comparison of the analysis of the findings (synthesis)	116
5.9.1	Educators and learners	117
5.9.2	Educators and parents	117
5.9.3	Parents and learners	118
5.9.4	WCED and the school	118
6	Conclusion	120
6.1	General conclusions	120
6.2	Recommendations	121

6.2.1	WCED	121
6.2.2	Principals	121
6.2.3	Teachers	122
6.2.4	Parents	123
6.2.5	Learners	125
7	References	126

ABBREVIATIONS

NRF	National Research Foundation
WCED	Western Cape Education Department
FET	Further Education And Training
MTN	Mobile telephone Network
NQF	National Qualifications Frame work
CRIC	Careers Research and Information Centre
OBE	Outcomes Base Education
NGO	Non Governmental Organisation
N3	NTC 3 (National Technical Certificate Part 3)
GET	General Education and Training
IT	Information Technology
IOES	Illinois Office of Educational Services

LIST OF GRAPHS

The following graphs were used for displaying data from the Learner questionnaires.

Fig. 4.1.1 People talking about their careers

Fig. 4.1.2 Learners approaching teachers about career issues.

Fig. 4.1.3 Learners attending career exhibitions.

Fig. 4.1.4 Learners working on projects about jobs.

Fig. 4.1.5 Learners going on field trips.

Fig. 4.1.6 Learners job shadowing.

Fig. 4.1.7 Learners using computers for career purposes.

Fig. 4.1.8 Learners doing career research.

Fig 4.1.9 Teachers talking to learners about careers.

Fig 4.1.10 Parents talking to learners about careers.

Fig. 4.1.11 Learners talking to school friends about careers.

The following graph was used to display information from the parent questionnaires.

Fig 4.3.1 Knowledge of engineering trades

The following graphs were used to display information from the educator questionnaires.

Fig. 4.4.1 People talking about their careers.

Fig. 4.4.2 Students approaching educators about career issues.

Fig. 4.4.3 Educator's engineering knowledge.

APPENDICES

- A Learner questionnaire.
- B Parent questionnaire
- C Educator questionnaire.
- D Principal interview schedule.
- E WCED official interview schedule.
- F Learner focus group schedule.
- G Educator focus group schedule.
- H Letter of application to WCED.
- I Letter of approval from WCED.
- J Parent covering letter requesting their participation.
- K Learner covering letter requesting their participation.
- L Educator covering letter requesting their participation.
- M Principal covering letter requesting his participation.
- N WCED official's covering letter requesting his participation.
- O Consent form for participants.
- P Letter of confirmation from supervisor to WCED
- Q Parent covering letter requesting permission for their children to participate in the study

CHAPTER 1

1 INTRODUCTION

The apartheid system prior to 1994 has had a devastating effect on education for disadvantaged communities in South Africa. On the heels of its 1994 “miracle,” the political transformation, South Africa must brace itself for the more difficult task of social reconstruction. Policy-makers will be asked to engineer similar “miracles” to repair the damages of apartheid and disinvestment. In the education sector, South Africa’s problems are particularly acute (Christopher, 1998). Christopher goes on further to say that the focus on the student-teacher ratios and the resultant rationalisations and retrenchments have set off a chain of demoralisation and disorganisation within the schools. The few guidance counsellors and vocational teachers available are usually shifted from school to school to meet the demands of the ratios, and are not integrated as a useful part of the school organisation.

Christopher adds that in addition to their duties within the classroom the counsellors and teachers must also deal with the myriad of social problems that affect their students such as broken homes, gangsterism, violence, drugs etc. According to him, the system of the past bred failure and dissatisfaction and held little promise for the majority of South Africa’s children.

Currently in South Africa most children attend academic schools that offer general subjects such as history, geography, biology, accountancy and so on. There are considerably fewer technical schools that can absorb those individuals who want to pursue an engineering trade career path. Many of the teachers at academic schools

themselves had an academic education. As a result they are not aware of engineering trade careers.

South Africa, as a developing country, has a great need for artisans and is not producing enough technically trained people to contribute to the development of our technology dependent economy. One way to address this problem is to ensure that learners, parents and teachers are informed about career opportunities open to people who enter the engineering trade.

1.1 Background

My current job description at Northlink College involves giving career guidance to prospective candidates. Northlink is a technical college providing theoretical as well as practical training for the engineering trade. Since 2002 it has become apparent that there are many individuals who experience difficulty when choosing a career path, especially those coming from academic schools. Those who have been fortunate to matriculate enroll in subjects that do not support them when entering a technical college. Those who pass grade 9 but are not academically inclined, in many cases have to settle for subjects that do not benefit them in a technical environment.

Currently there is no link between academic schools and technical colleges and it is evident that very little or no career guidance is taking place. Consequently learners either find themselves having to do an academic matric or leaving school prematurely with a grade 9, grade 10 or grade 11 certificate. In both cases these learners risk the danger of unemployment, or moving from one job to another. A link between technical colleges and schools in general has to be forged. Proper career awareness

interventions at an early stage are likely to benefit the learner. A North Carolina Department of Public Instruction report (N.C, 1999) indicates, that individuals who receive early career training and counseling services:

- Improve school involvement and performance.
- Increase personal and interpersonal skills.
- Improve preparation for careers.
- Increase career awareness exploration and planning skills.

With early intervention, students will be helped to make the best possible learning and career choices (N.C, 1999) so that they may have a full life and be contributing members of society. Such citizens are likely to have a positive impact on the economy as a whole. The Arizona survey results for 1998 with regard to the state's School To Work system suggests that participation in career related activities can significantly influence a student's ability to identify a career interest (Larson & Vandegrift, 1998).

1.2 Problem statement: The focus of this research is on the current status of career awareness on engineering trade career choices among grade nine learners at formerly disadvantaged academic schools. The perceptions and opinions of learners, academic staff and education authorities will be examined with a view to implementing or improving career awareness interventions for learners.

1.3 Rationale:

The need for proper career awareness is a National imperative. If one were to equate the time lost due to improper or no career awareness in terms of rands and cents, the figure would be astronomical. According to Brown (1998), the National School-To-Work learning and Information Centre estimates that American business spends nearly R30 billion training and retraining its workforce. Early interventions are likely to lead to a huge cost saving for the country as a whole with many learners being able to contribute positively to the economy upon graduation. Early and meaningful career awareness interventions have the potential to ensure that learners enter a satisfactory career at an early stage. This has potential benefits for the individual and the economy as a whole.

1.4 Hypothesis:

It is hypothesized that learners at disadvantaged academic schools do not have an awareness of engineering trade careers.

1.5 Research questions:

- ❖ Is career awareness evident at the school and if so, to what extent?
- ❖ What are the learners, perceptions of engineering careers?
- ❖ What are teacher's perceptions of engineering careers?
- ❖ What are parent's perceptions of engineering careers?
- ❖ To what extent is the WCED involved with career awareness?
- ❖ What skills do students possess in order to help them make career choices?

1.6 Research objectives:

- 1.6.1** To find out what is currently happening at schools and the immediate communities with regard to career awareness.
- 1.6.2** To establish what strategies are being employed by educators and parents to assist learners with career choices.
- 1.6.3** To formulate guide lines and strategies to assist educators and parents when dealing with career awareness issues.

CHAPTER 2

LITERATURE REVIEW

2.1 DEFINITION:

Career awareness differs from career guidance in the sense that the latter is more specialized, that is, it involves specialized skills, such as psychometric and aptitude testing. Career awareness is a much broader concept encompassing a general knowledge of different careers, as well as pathways toward these careers. Career awareness opens the eyes of learners to new possibilities for their future, showing them the many different kinds of jobs people do, and sparking new dreams of what they can achieve in life (White, 1998)

2.2 CAREER AWARENESS AS A NATIONAL ECONOMIC NEED

According to Gerber, Nel and Van Dyk (1998) the country's human resources hold the key to many of its problems. It is the country's human resources that will eventually make the difference rather than material resources. Peterson (2002) states that effective career guidance is important not only to all stakeholders, but also for the economic prosperity of the country as a whole. Zozo Siyengo (in Peterson 2002) comments that South Africa faces a paradox of shocking unemployment and a massive skills shortage. There are jobs in South Africa, but we do not have people with the right skills to be able to do them. This has to be addressed. A number of writers have commented on the economic value of career guidance (Patton, 1999). Krumboltz (1996), claimed that "The economic welfare of a nation depends on its citizens learning career relevant skills and characteristics and learning to adapt to a constantly changing work environment".

McCowan & Hyndman (1998), state that career activity is being seen as a high national priority in many countries. According to Patton (1999), Australia is conspicuous for its lack of focus on career activity as a major national priority. There is no formalized government or statutory authority or system in place to oversee the provision of career guidance and counseling services to the population. Career work has been undervalued in Australia and the existing infrastructure is lacking. Similarly in South Africa (Gerber, et al, 1998), the school-to-work transition is not up to the standard of its trade partners. There is very little linkage between school-based vocational training and in-company training.

2.3 SEEING CAREER AWARENESS AS A PROCESS

According to Herr (1992), career services must be available to the individual throughout their lives. Traditionally much of the available career guidance has been restricted to a single event at school exit points. Such a restricted service provision is no longer adequate. Career counseling may best be thought of as a continuum of intervention processes. McCowan (1996), observed that career guidance is alive and well but is delivered in bursts of disjointed activity at major crises points rather than developmentally. Patton, (1999) states that the task of career counselors often involves other activities which reduce the time available for career counseling. Pennington (1996) states that high school education needs to prepare students for the world of work. On the other hand according to the Canadian Summary report (1999), career awareness should commence at primary school level and continue into high school. Peyser (1999) agrees and states that career development is a life long journey that begins when a young child

chooses to play with building blocks, a tea set or a truck. Studies have shown that individuals who receive early career training and counseling services:

- Improve school involvement and performance.
- Increase personal and interpersonal skills.
- Improve preparation for careers.
- Increase career awareness exploration and planning skills.

According to White (1998), young children should be shown what they could choose to become at elementary school level because they begin to think about their future at an early stage in their lives.

2.4 HIGH COST OF INADEQUATE OR NO CAREER AWARENESS

According to Brown (1998), young entrants to the American workforce do not meet the requirements of the high – skill job market. It is estimated by the National School-To-Work learning and Information Centre that American business spends nearly R30 billion training and retraining its workforce. The South African school system, especially at academic schools does not meet the needs of industry. According to Gibson (2003), for school leavers who plan careers in the direct entry occupations of for example: medicine, engineering, computers, agriculture, etc, career decision making is comparatively straightforward and the outcomes fairly visible. For those students wishing to follow a career in the technical direction, such as, Fitter, Turner, Electrician, etc, there is very little an academic school can offer. As a direct result of this, these students either leave school prematurely or struggle through to matric ending up as shelf packers at a supermarket or in some other unsuitable position. The amount of money spent on transport, clothing,

school fees, books, etc, during the three years it takes to reach matric has not been estimated. Should this exercise be carried out it would definitely amount to a significant figure. This loss can largely be apportioned to the lack of career awareness.

2.5 BARRIERS TO CAREER AWARENESS

According to Swan (1998), career awareness should involve all relevant stakeholders. If there is a disconnection between family, school, community, business and agencies. This disconnection can lead to failure for young people in the system. The greatest obstacle to education is that many students have little incentive to learn. They see no future reward in the form of a good job.

The following table indicates some of the main barriers to career awareness:

- Family barriers
 - lack of role models
 - Unemployment
 - low academic levels
 - poverty
 - stigma attached to becoming a tradesman
- School barriers
 - over-crowding
 - lack of resources
 - gangsterism
 - absence of a culture of learning
- Business barriers
 - very few businesses partake in career awareness activities.

- Perception barriers- a negative perception towards technical careers exists in South Africa. According to Christopher (1998) there is a belief that work orientated programs are somehow irregular or not part of an academic education.

2.6 SUCCESSFUL CAREER INTERVENTIONS

According to Pariser (2000), “Relational Education” works – This type of educational approach involves all stakeholders, that is, parents, teachers, business, the learner and the community. Students who have chosen to leave conventional education for a wide variety of reasons embark on a different learning experience, which makes sense to them and will help them achieve their goals.

Tech Prep which is another name for School-To-Work, is another successful intervention in the American schooling system (Brown, 1998). According to Owens (1996), tech prep has helped educate and influence the attitude of many students and parents about the need for workplace preparation.

The Project Career Awareness Program (Project Cap) complements the basic skills curriculum of the school and introduces the student to the wide variety of ways in which people work. Students participating in the program are significantly more aware of careers than non-participating students. (Sparkman, 1995)

The Arizona School To Work program which is supported and funded by the state – STW Opportunities Act of 1994- is another successful intervention (Larson & Vandegrift, 1998). Data for 1997 and 1998 suggest that overall student participation has increased.

Business Ventures is a successful career awareness intervention initiative in the Western Cape. It was introduced in March 1997 and comprises entrepreneurial education, which culminates into the practical running of a business. Interest in the program has caught on fast with over 300 schools across South Africa participating. (Christopher, 1998)

JobReady, which is North Carolina's school-to-work system, is another career awareness initiative in America. JobReady brings learning to life by connecting students to the world around them. The career choices students make now-in and outside the classroom-teach them valuable skills, provide helpful insights, and make the learning process more meaningful and exciting with hands-on experience. JobReady shows students why their education is important to the rest of their lives and their careers. Participating in JobReady activities helps students make wise choices while preparing for college and a career. (N.C. n/d)

2.7 CAREER AWARENESS AS PART OF THE SCHOOL CURRICULUM

The integration of career awareness into the school curriculum should be seen as an imperative. It should also be of a high quality and potency (Peterson, 2002), because

it is one of the primary sources of information that a student needs in order to make a career choice. Career guidance at schools should be forward – looking and innovative. (Peterson, 2000). The Tennessee Department of Education’s goal for 2001 was to have career awareness activities integrated into their curricula in 100 percent of its elementary schools. (White, 1998). The CAP PROJECT infuses career awareness into the school curriculum (Sparkman, 1995).

White (1998), is of the opinion that schools and teachers should be encouraged to change curricula and instruction to include career awareness activities, real – world projects, and hands – on learning. Educators should get out of the classroom and into the workplace so that they may have a better understanding of other professions. According to Gibson (2003), a wise realistic choice of a career is only possible after careful self-analysis and a thorough knowledge of occupations.

According to Gerber et al, (1999), vocational guidance, which is just another name for career awareness should be revised to include practical applications of school subjects as an examinable part of the syllabus for that subject. This is important because if no examination of career applications of a subject takes place, teachers may not do justice to it and treat it lightly or in fact largely ignore it. They go on further to say that vocational guidance should instil an attitude of hope an self responsibility in disadvantaged communities as well as a sense of practical, hands on social responsibility and commitment in advantaged communities. Furthermore, vocational guidance should attempt to combat the tendency of young people to

choose tertiary, white-collar careers in preference to primary and secondary occupations, by making them aware that prosperity depends on primary and secondary production.

2.8 NQF [NATIONAL QUALIFICATIONS FRAMEWORK]

The National Qualifications Framework is a mechanism upon which all qualifications will be registered. It consists of registered qualifications at eight levels of learning and provides an opportunity to move from the technical college to the technikons or universities. These qualifications are obtained through learnerships. A learnership is a tripartite contractual agreement between the learner, employer and a service provider (educational institution). It endeavours to bring together theory and practice. The establishment of Learnerships makes technical careers more accessible to learners who might not be able to afford studying at a technical college. Learnerships are funded by the various SETAs (Sector Education Training Authorities). A SETA is a statutory body that administers education and training within a particular sector of industry. Schools will now have to align themselves with the NQF, and by so doing, form the link between schools and colleges. This paradigm shift will then give meaning to the schooling phase.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction:

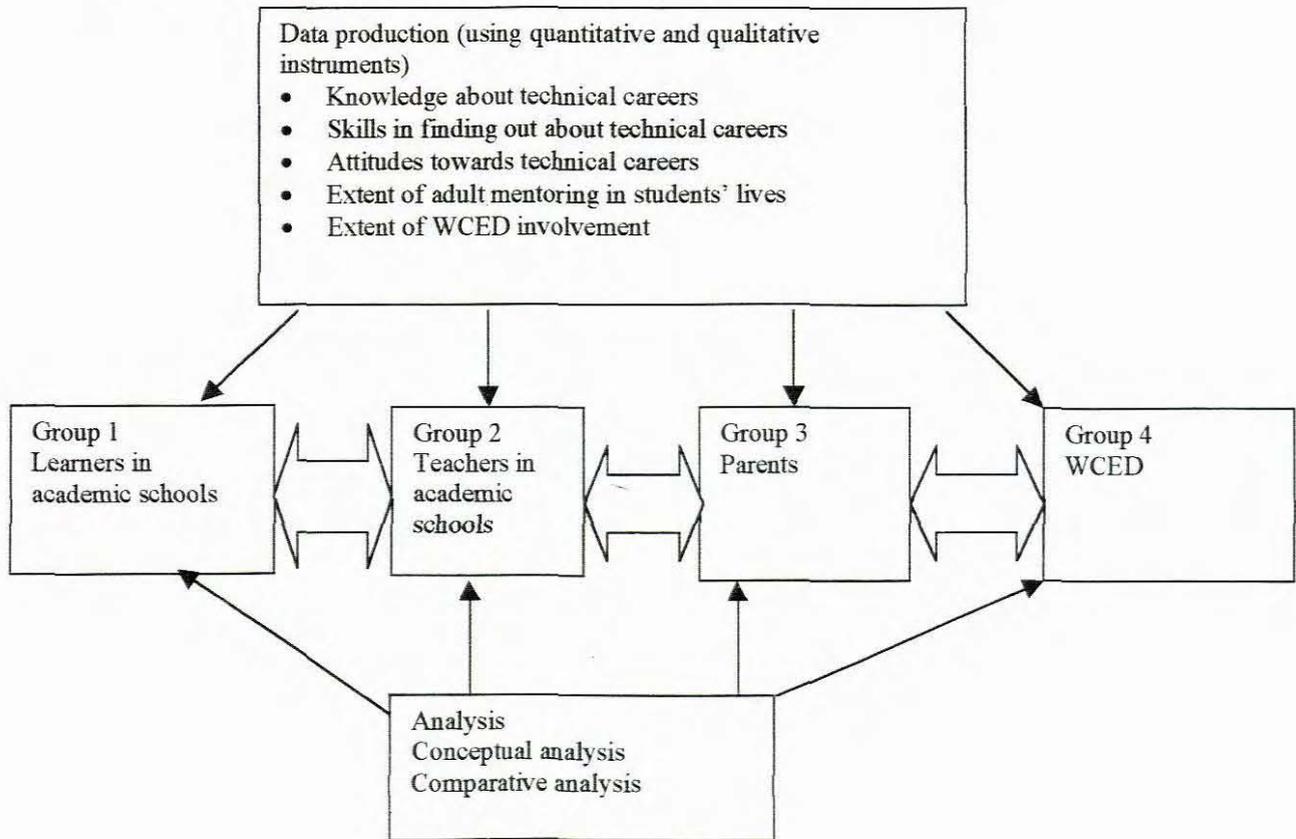
According to Gillham (2000), a multi-method approach to research has the potential of enriching as well as cross-validating research findings. A combination of both quantitative and qualitative instruments was incorporated. Questionnaires were directed at parents, learners, educators of grade 9 learners as well as the WCED. Focus groups were implemented for learners and grade 9 educators. The stance of the WCED with regard to career guidance was also investigated by means of an interview. The principal of the school was also interviewed. All interviews and focus groups were video taped. According to Gillham (2000), videotaping the interviews enhances the potency of the data.

3.2 Research design:

According to Opperman (1966:6), the term research design refers to the basic plan or strategy of the research, and the logic behind it, which will make it possible and valid to draw more general conclusions from it. Research design is concerned with making our problem researchable by setting up our study in a way that will produce specific answers to specific questions. Opperman (1966:8), states that it is the research design which must hold all the parts and phases of the enquiry together. The design must aim at precision, logic-tightness and efficient use of resources. A poorly designed survey will fail to provide accurate answers to the questions under investigation; it will leave too many

loopholes in the conclusions; it will permit little generalizations; and it will produce much irrelevant information, thereby wasting case material and resources.

The following diagram indicates the research design for this study:



3.3 Data production methods:

There are many methods by means of which data can be produced and according to Babbie and Mouton (2001), the idea is not to freeze a method into a certain frame but rather to have as many creative ways to study our world as possible.

3.3.1 Data sources

- **Learners:** Their understanding of career awareness was accessed through both questionnaires and focus group interviews (see appedices A & P)

- **Educators:** Their understanding, perception and attitude towards career awareness was accessed through questionnaires and a focus group session (see appendices C & Q)
- **Principal:** The principal of the school was interviewed to determine his understanding, attitude and perception of career awareness (see appendix D)
- **Parents:** Their understanding, attitude and perception of career awareness was accessed through questionnaires (see appendix B)
- **Policy documents:** The existence of WCED policy documents pertaining to career awareness was pursued while interviewing the WCED official.
- **Academic literature:** The views of previous writers on the subject of career awareness were sourced at libraries and on the Internet.
- **Reports on career awareness interventions:** These reports were sourced locally and internationally in order to initiate and implement career awareness programs.
- **WCED:** An official at WCED was interviewed in order to determine their involvement with career awareness issues (see appendix G)

3.3.2 Sampling

School A was chosen because of the following reasons:

- it is set in a historically disadvantaged community
- there is a lack of resources
- over-crowded classrooms are the norm

- teacher morale is low
- student discipline is problematic
- gangsterism is a problem
- a culture of learning is not evident
- there are +/- 20 grade 9 educators
- there are +/- 200 learners
- there are +/- 200 households

Purposeful sampling was used for focus group interviewing comprising learners with different academic capabilities. According to Cohen and Manion (1986), in purposive sampling, the researcher handpicks the cases to be included in his sample on the basis of his judgement of their typicality. In this way, he builds up a sample that is satisfactory to his specific needs. Grade 9 learners were selected for this study due to the fact that after completing grade nine they have to make subject choices that will impact on their careers. Academic schools do not support those learners who want to pursue an engineering trade career path. All grade nine learners were asked to complete questionnaires. All grade 9 educators as well as the parents of the learners were asked to complete questionnaires. The principal and WCED official was interviewed.

3.3.3) Questionnaires:

The literature review was used to design the various questionnaires. This mode of research was chosen because as Gillham (2000) notes, it is easy to analyse.

Gillham however cautions against the use of too many open-ended questions because they are difficult to analyse. These questionnaires were used to determine

the perceptions, knowledge and attitudes of the respondents. A variety of question formats was used namely; open and closed, ranking, scaling etc. All questionnaires were piloted before distribution. According to Gillham (2000), it cannot be emphasized too strongly that until you have done this you do not know how well your questionnaires will work.

- questionnaires for learners (appendix A) was administered with the help of grade 9 teachers.
- questionnaires for teachers and parents were administered by the researcher.

3.3.4 Interviews: All interviews were recorded on videotape. According to Gillham (2000), videotaping the interviews enhances the potency of the data. It adds to the vividness of the verbal content of the interview by providing the non-verbal dimension of communication. According to Bless & Higson-Smith (1997), an interview involves direct contact with the participant who is asked to answer questions. The most structured way of getting information directly from the respondent is by means of a scheduled structured interview. This method is based on an established questionnaire – a set of questions with fixed wording and sequence of presentation. According to Bell, Bush, Fox, Cooley and Goulding (1987:189), interviews should also be piloted because what may seem straightforward to the researcher may be baffling to another person not fully in the picture.

- The principal of the school was interviewed on a face to face basis to determine his perception, knowledge and attitude with regard to career awareness in order to initiate and implement career awareness interventions that assist him when it comes to career awareness. A structured questionnaire (appendix D) was used for this purpose. The video camera was set up in the principal's office for recording the interview.
- A WCED official was interviewed on a face to face basis to determine their perception, knowledge and attitude towards career awareness in order to highlight the importance of career awareness as a National Imperative. A structured questionnaire (appendix G) was used for this purpose. The interview was recorded at Northlink College.
- Most of the grade 9 educators participated in the focus group session, which was video taped in the staff room. The purpose of the focus group was to allow the educators to express themselves more fully as apposed to the questionnaires, which limited their expression.
- Fifteen learners participated in the learner focus group, which was also video taped in the staff room. The purpose of the focus group was to allow the learners to further debate the questions that were posed in the learner questionnaires and to allow the researcher to probe for more depth in the answers.

3.3.5 Policy documents

It was investigated whether any policy documents pertaining to career awareness exists and whether these policies were being implemented.

According to Gerber et al (1999), the Guidance and Placement Act (Act 62 of 1981) has not been sufficiently updated and needs a major overhaul. This Act must include career awareness and be used as a vehicle to reinstate career awareness activities back into the schools.

3.3.6 Delimitation

While there are many academic schools with learners who have problems with career awareness in general, this study is limited only to career awareness from a technical perspective for grade nine learners at one previously disadvantaged academic school.

3.3.7 Data collection procedure

The principal of only one target school was approached for an initial meeting in order to hand over the permission letter from the WCED and to discuss the nature of the research. Time frames for administering and collection of the relevant documentation and the scheduling of interview sessions were discussed. The WCED was contacted in order to arrange for the interview of the WCED official.

3.4 Data analysis methods

All data collected, whether by questionnaires or interviews was subjected to a descriptive method of analyses (Goulding, 1987). Gillham (2000) agrees that the first stage of analyses is essentially a descriptive one. Goulding (1987) goes on further to say that data collected by means of questionnaires, interviews, dairies, or any other method means very little until the data is analysed and assessed.

3.4.1 Questionnaires

Questionnaires were analysed thematically and statistically. A system of coding and scoring was utilized.

3.4.2 Interviews

All interviews were put through a process of transcription, logging of data and analysis of data. Powney and Watts (1987), take analysis to be the detailed examination of the database that ensues from single or multiple interviews. It also involves interpretation and is thus a creative process. Part of this creative process is to impose a structure on the accumulated material.

3.4.3 Synthesis

Once all the data was collected and put through various processes of analysis, the report writing and interpretation began. This is where the content of the data collected was aligned for differences and similarities so that conclusions could be drawn and recommendations made. According to Babbie & Mouton (2001:568),

the presentation of data, the manipulations of that data and the researchers' interpretations should be integrated into a logical whole.

3.5 Ethical issues

High ethical standards were adhered to. Confidentiality was guaranteed. The consent of all stakeholders was sought. Permission to conduct this research was attained from all stakeholders.

- Letter to WCED requesting permission to conduct the research – appendix I
- Covering letter to parents requesting their participation in the research – appendix J
- Covering letter to learners requesting their participation in the research – appendix K
- Covering letter to parents requesting permission for their child/ren to participate in the research – appendix Q
- Covering letter to the principal requesting his participation in the research – appendix M
- Covering letter to the WCED official requesting his/her participation in the research – appendix N
- Consent letter for all participants – appendix O

CHAPTER 4

RESEARCH FINDINGS

Introduction

This chapter deals with the reporting of all data collected. Special data capturing tools were designed for this purpose. Special codes were assigned to the responses in order to facilitate the interpretation of the data. Special formulas were designed to calculate various totals, which were used to obtain the necessary percentages. Formulas were also designed to calculate the modes. Totals and modes were mostly used for the interpretation of the data. Special graphs were designed to enhance the interpreted data. Once all the data has been reported, chapter 5 will deal with the analysis of the data.

4.1 FINDINGS FROM LEARNER QUESTIONNAIRES

(Refer to appendix A)

Of the 171 questionnaires that were distributed, 147 learners responded which resulted in an 86% return. The gender split was 39% male and 52% female. The remaining 9% of learners did not complete this part of the questionnaire.

4.1.1 Career awareness programs running at the school.

This data refers to question 1 of appendix A

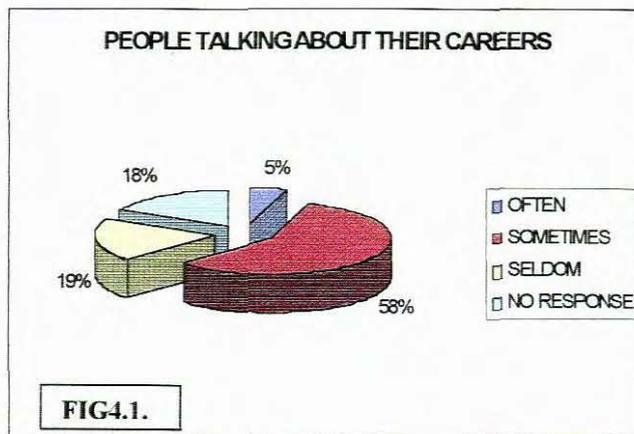
Only 3% [4 out of 147] of the learners indicated that there was some form of career awareness programs running at the school. The remainder of learners were either not sure or indicated that there were no career awareness programs running at the school.

4.1.2 The frequency of career awareness interaction occurring at the school.

This data refers to question 2 of appendix A

4.1.2.1 People coming to the school to talk about their careers.

[Question 2a of appendix A]

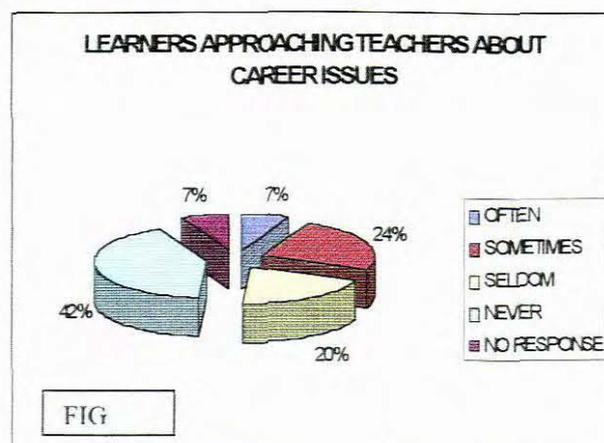


With reference to fig 4.1.1, more than 58% of the learners indicated that people sometimes came to the school to talk about their careers.

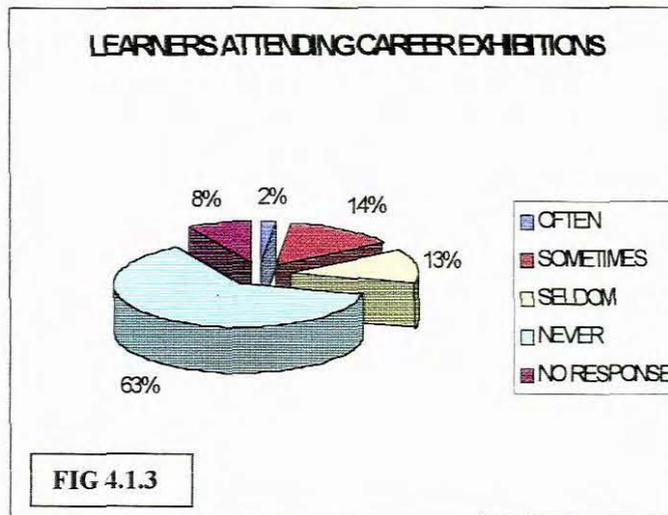
4.1.2.2 Learners approaching their teachers about career awareness issues.

[Question 2b of appendix A]

With reference to fig 4.1.2, about 31% percentage of learners often or sometimes approached their teachers about career issues while just over 60% never or seldom did this.

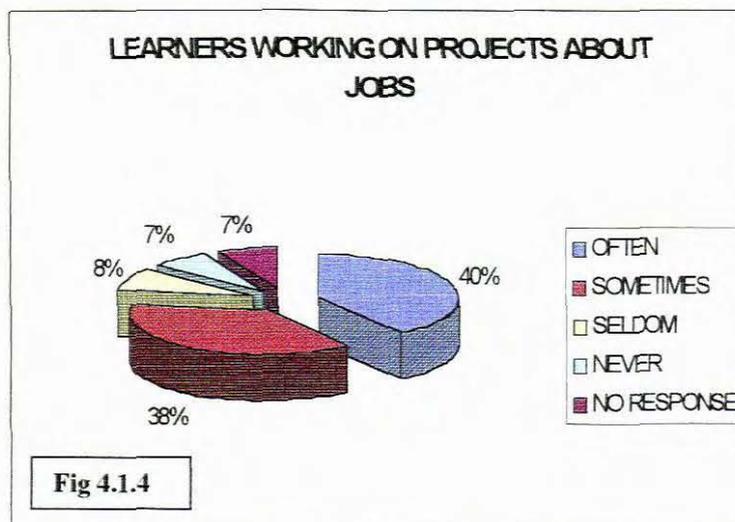


4.1.2.3 Learners attending career exhibitions. [Question 2c of appendix A]



With reference to fig 4.1.3, almost 2 thirds of the learners indicated that they never attended career exhibitions.

4.1.2.4 Learners working on projects about jobs. [Question 2d of appendix A]



With reference to fig 4.1.4, nearly 80% of learners indicated that they often or sometimes worked on projects to help them understand jobs.

4.1.2.5 Learners going on field trips to see people doing different jobs.

[Question 2e of appendix A]

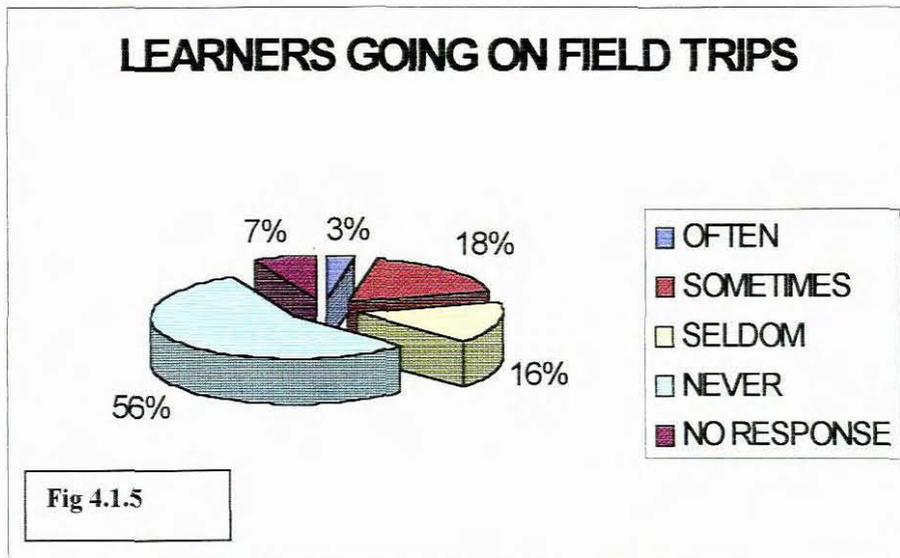
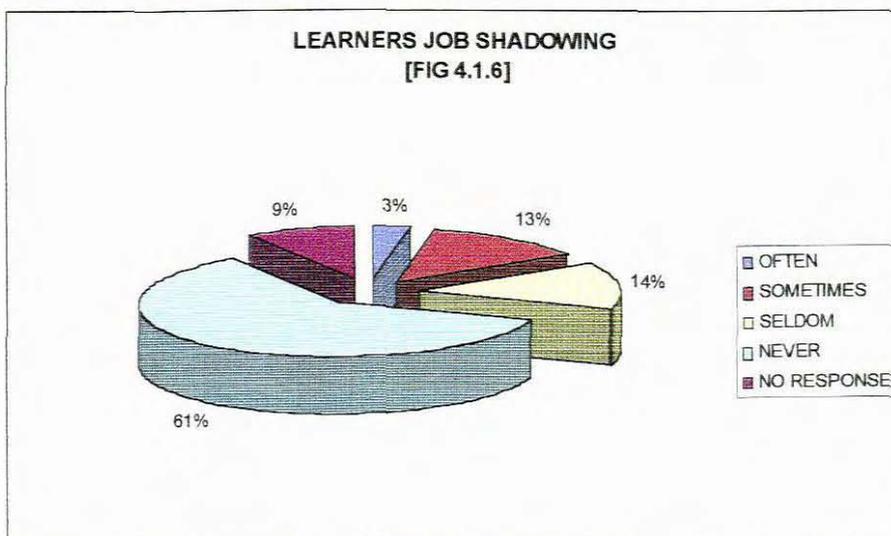


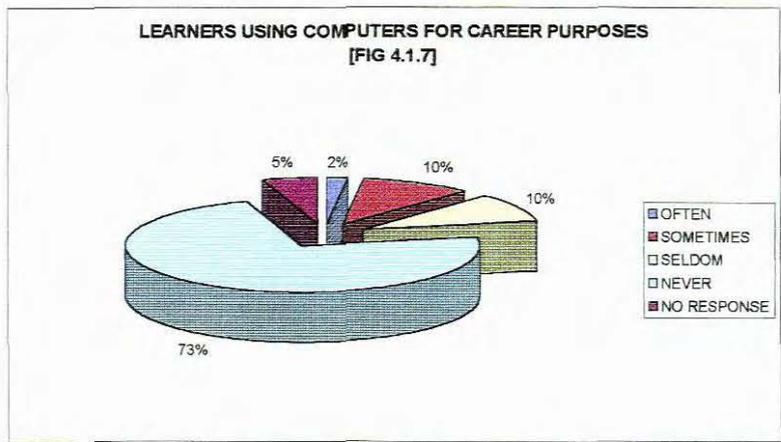
Figure 4.1.5 indicates that 56% of learners never went on field trips to see people doing different jobs.

4.1.2.6 Learners job shadowing. [Question 2f of appendix A]



With reference to the pie graph fig 4.4.6, only 13% of the learners sometimes job shadowed while 14% seldom did. An overwhelming 61% of learners indicated that they never job shadowed.

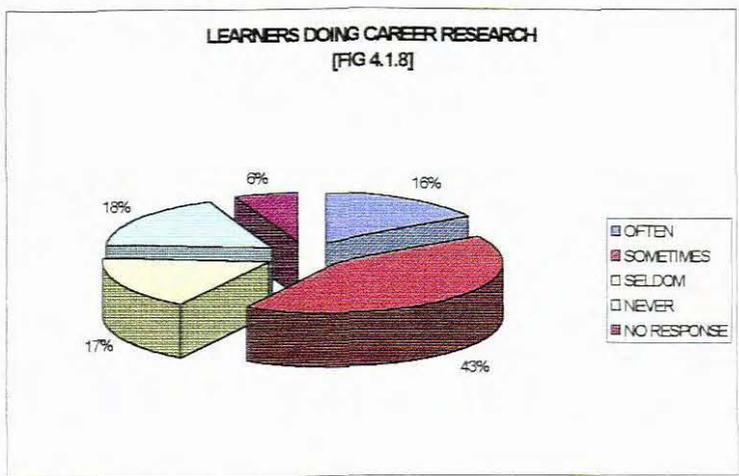
4.1.2.7 Learners using computers for career issues. [Question 2g of appendix A]



With reference to fig 4.1.7, an overwhelming 73% of learners indicated that they never used computers for career research.

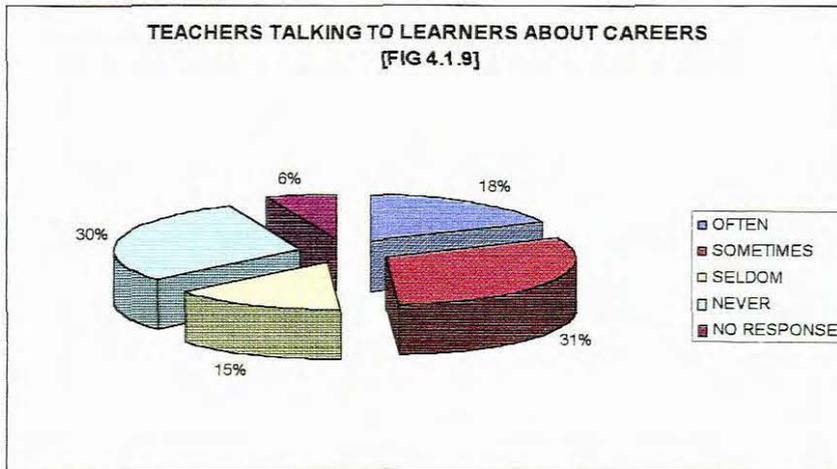
4.1.2.8 Learners doing career research. [Question 2h of appendix A]

Fig 4.1.8 indicates that only 18% of learners never did career research while the vast majority did it in varying degrees.



4.1.2.9 Teachers talking to learners individually about careers.

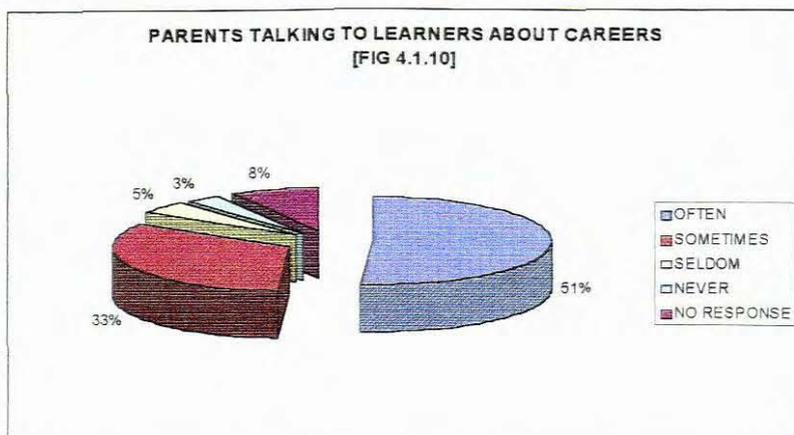
[Question 2i of appendix A]



With reference to fig 4.1.9, 30% of the learners indicated that teachers never spoke to them about career issues while 15% indicated that this seldom happened. Just under 50% of the learners indicated that teachers often or sometimes spoke to them about career issues.

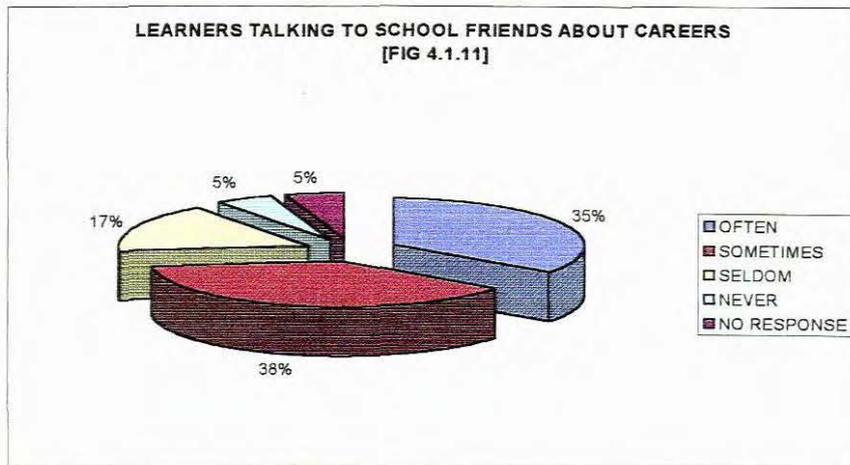
4.1.2.10 Parents talking to learners about career issues. [Question 2j of appendix A]

51% of parents often spoke to their children about career issues as indicate by fig 4.1.10. 33% sometimes did this while only 8% never or seldom spoke to their children about career issues.



4.1.2.11 Learners talking to school friends about career issues. [Question 2k of appendix A]

Fig 4.1.11 indicates that just over 70% of learners often or sometimes spoke to their school friends about career issues while a minority of 22% never or seldom did.



4.1.3 The learners knowledge of the engineering field.

The data collected refers to question 3 of appendix A

- 82% of the learners did not know what a Fitter was.
- 93% of the learners did not know what a Turner was.
- 56% of the learners had a vague idea what a Welder was.
- 62% of the learners had a vague idea what an Electrician was.
- 59% of the learners had a vague idea what a Mechanic was.

4.1.4 The learners opinion as to whether people in engineering can earn more than people in other professions.

The data collected for this question [question 4 of appendix A] indicates that:

- ❖ 37% of the learners were not sure.

- ❖ 29% of the learners were of the opinion that people in engineering could earn more.
- ❖ 24% of the learners indicated that people in engineering could not earn more than people in other professions.

4.1.5 The learner's general awareness about career issues.

These findings refer to question 5 of appendix A.

- ❖ When asked whether they had heard of Northlink college, 63% of the learners indicated that they had not.
- ❖ 78% of the learners were aware that they could go to a technical college after completing grade 9.
- ❖ 36% of the learners knew that they could do technical subjects towards a matric while the rest were either unsure or did not know this.
- ❖ 35% of the learners were not aware that they could obtain a technical matric.
- ❖ 51% of the learners knew that they could study at a university or technikon via the engineering field.
- ❖ 61% of the learners were aware that they could start their own businesses after qualifying in the engineering field.

4.1.6 Career awareness initiatives that could be implemented at the school.

This data collected refers to question 6 of appendix A.

An average of 45% of the learners were strongly in favour these initiatives.

An average of 26% of the learners were in favour of these initiatives.

An average of 10% of the learners were not in favour of or against these initiatives.

An average of 4% of the learners were against these initiatives.

An average of 3% of the learners were strongly against these initiatives.

The outstanding percentage is due to no responses by some learners.

4.1.7 The learner's interest in a career in the engineering field.

The data collected refers to question 7 of appendix A.

From the data collected the yes, no and not sure responses were roughly split into thirds with most learners indicating that they were not interested in a career in engineering.

Some of the reasons given by learners who said no or were not sure are as follows:

- ❖ [LO1] – Do not know anything about the engineering field.
- ❖ [LO3] – Do not know anybody in the engineering field / People in the engineering field do not earn as much money as doctors and lawyers etc. / Engineering trades are seen as hard work.
- ❖ [LO9] – My friends and family will not think much of me if I become a Fitter, Welder etc. / Engineering trades are for individuals with a poor education.
- ❖ [L14] – Engineering trades are a dead end street.
- ❖ [L18] – engineering trades are seen as being inferior to other professions.
- ❖ [L25] – “I don't want to become an engineer because I don't think it is for girls”.

4.2 THE FINDINGS FROM THE LEARNER FOCUS GROUP SESSION.

(Refer to appendix F)

Permission was obtained from the principal for the learner focus group session to be conducted in the staff room. This led to some interruptions with the educators coming

in and out. The deputy principal assisted in selecting the sample group for the session. The criteria for the selection was that only learners who were interested in the engineering field or those who were unsure had to be selected. The group also had to have a possible split of 50/50 males and females. The group that arrived had 3 males and 10 females. This scenario seemed problematic at first and threatened the success of the focus group, but turned out to be rather successful in the end.

4.2.1 Learners knowing what they wanted to be when finishing school.

There was a mixed response to this question. The gender coding for the learners are, L8F - learner 8 female, and L5M - learner 5 male. The question was posed to each learner in turn, and the following are some of the responses:

Learner [L8F] responded by saying that, " I want to be a psychiatrist. Our community suffers with the street kids and abandoned kids, so I want to help them grow up".

Other careers mentioned were, lawyer, air - hostess, mechanic, accountant, dress designer and news anchor. Some learners were not sure what they wanted to be while others did not know what their chosen careers entailed. When [L12F] was asked what an accountant did she replied, " Not really". None of the females chose engineering careers, but when ask whether anyone of them were interested in this field, learners [L6F / L8F / L9F / L1F/ L2F] all indicated yes. Learner [L4F] indicated that she was not sure what her options were or what was required enter the engineering field.

4.2.2 Learners talking to their parents about what they want to be.

Learner [L9F] indicated that she sometimes spoke to her parents about careers. Learner [L4F] said, " They talk to us about what they think we should be. They talk, we listen.

They say what we must be". When asked whether this was good or bad, learner [LF7] replied, " It's not a bad thing. It's their perception of what they think we should be". Learner [L13M] felt that one could choose the job that one wanted. " If you want to become a mechanic, it's up to you". Learner [L7F] indicated that there had to be a balance.

4.2.3 The type of work the learner's parents did.

Only a few learners responded to this question. Some of the occupations mentioned were: factory worker, council worker, working for a security company, looking after children, working in a chemist and an electrician. When asked whether anybody visited their parents at work, the following learners indicated that they did – [L1F / L4F / L5M / L6F / L7F / L9F / L10M / L13M]

4.2.4 Learners talking to their teachers about careers.

The findings indicated that generally learners did not talk to their teachers about careers. Learner [L1F] indicated that their teacher did however show them how to write out a CV.

4.2.5 People coming to the school to talk about their careers.

The learners indicated that this activity did not happen often enough. They indicated that they would like this activity to happen more often so that they could become more aware of other careers. The learners also felt that teachers should talk more about the jobs other people do.

4.2.6 The best job in the world.

Learner [L4F] felt that being the state president was the best job in the world because it was like owning a country. Learner [L11F] was of the opinion that any job could be the best job in the world. As she put it, “It is what you make of it. If you like what you are doing, then that is the best job”.

4.2.7 The learner’s knowledge of the engineering trades.

The findings indicate that most learners are not aware of the various engineering trades. One learner indicated that a Mechanical Fitter fits different parts to a car, which is not entirely correct. None of the learners have seen or know somebody who is a Mechanical Fitter. Learners did not know what the following people did, namely: Turner, Boiler-maker, Electronics Equipment Mechanician and Toolmaker.

4.2.8 Interest in trades in the engineering field.

The learners were asked whether any of them would be interested in the engineering trades previously mentioned. The responses were as follows:

[L3F] – “Not sure”.

[L4F] – “I am not sure what to do”.

[L5M] – “Diesel mechanic”.

[L7F] – “Marine Fitter”.

[L9F] – “Motor mechanic”.

[L10M] – “Motor mechanic”.

[L11] – “Still in the dark”.

[L13M] – “Motor Mechanic”.

4.2.9 Seeing engineering trades as inferior to other professions.

Learner [L7F] responded as follows, “ I normally think that. Most people think that you can earn more money being a doctor than being a welder”. Learner [L7F] was of the opinion that money was the factor that drew people away from the engineering sector and more towards the academic careers. Learner [L4F] felt that all the years males followed engineering careers, not females.

4.2.10 The learner’s knowledge of technical colleges.

Learner [L7F] was of the opinion that a technical college is a place where learners could go and study further if they did not make a success of their schooling. Eight learners indicated that they did not really know what a technical college was. When asked to name a few technical colleges, learners were unable to. Learners [L7F and L13F] knew people who were at technical college, but did not really know what they were doing there. Most learners did not really know what happens at a technical college.

4.3 FINDINGS FROM PARENT QUESTIONNAIRES

(Refer to appendix B)

Of the 171 questionnaires that were distributed, 42 parents responded which represents a 25% response.

4.3.1 Involvement in career awareness issues [question 1 of annexure B]

According to the data collected, 55% of the parents often spoke to their children about career awareness issues while 43% never attended any career exhibitions. Thirty six percent of the parents never asked teachers for advice about careers while 45% sometimes spoke to other people about the issue.

4.3.2 What their children want to become [question 2 of annexure B]

The children of 62% of the parents new what they wanted to become, but only 9 of the 42 chose an engineering career which is a representation of 21 %. Forty eight percent chose careers other than engineering while 31% were unsure. Some of the responses were: “ He is not interested in his work”, “She does not really think about it, only goal is to get through high school”, “ She is still too young, she has not been exposed to the opportunities. She keeps changing her mind”, “ He is directionless”.

4.3.3 Engineering field versus the academic field with regard to earnings.

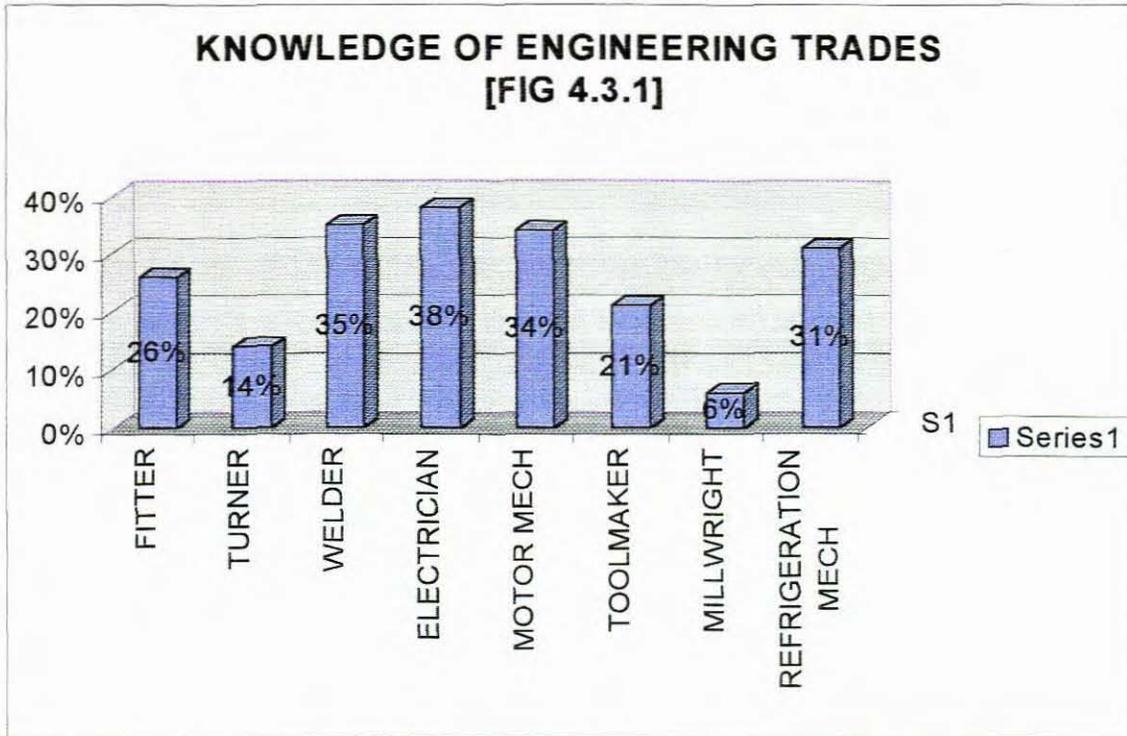
[question 3 of annexure B]

More than 50% of the parents agreed that people in the engineering field were capable of earning more than those in other professions.

4.3.4 Parent’s knowledge of engineering trades [question 4 of annexure B]

The data collected with regard to this issue shows an over-whelming lack of knowledge about engineering trades. When asked what a fitter did, more than 50% did not know or had a vague idea. Only 4 respondents, which is 10 % of the total, had an idea of what a

millwright does. Fig 4.3.1 illustrates the knowledge level among parents with regard to engineering trades.



Some responses with regard to the millwright trade are as follows: “The machine or technique used to make women’s hats” (P11), “ One who works or repairs lines” (P25). When responding to this question, one parents’ response was, “ Have no idea of anything because hasn’t expose to any of these things” (P24).

4.3.5 Careers that parents wanted for their children and some of the reasons for their choices [questions 5 and 6 of annexure B]

Of the 42 parents that responded to these questions, only 2 did not fill in a response. Therefore 40 out of 42 parents (95%) showed varying degrees of concern about their children's’ careers. There was a total of 22 different careers chosen with only 6 from the

engineering field, the remaining 16 being other professions such as, doctor, lawyer, dentist, teacher etc. Some of the reasons given for their choices were as follows:

- ❖ Chartered accountant (PO1), “ She shows great interest in it”
- ❖ Chartered accountant / lawyer (PO2), “Because I believe that my child will someday believe in her dream to what she wants to become”
- ❖ IT (PO4), “Because computers are the future”
- ❖ Teacher (PO9), “To empower the nation”,
- ❖ Welder (P17), “ She would be good at it and will earn a lot of money”
- ❖ Electrician / doctor (P18), “ It is his choice, I cannot make or choose a career for him. He must make his own choice”.

4.3.6 Degree of parents’ awareness [question 7 of annexure B]

The results from data collected with regard to the degree of parents’ awareness indicate that 77% of parents were aware that their children could enter a technical college after completing grade nine. 75% were aware that not all subjects in grade 9 supported learners who wanted to pursue an engineering career. 55% were aware that their children could do engineering subjects like Applied Maths, Applied Science, Trade Theory etc. towards a technical matric. 51% were aware that learners could obtain a technical matric if they passed N3 together with business English and Afrikaans. 70% were aware that learners could obtain a degree via the technical route. Twenty seven percent of parents have heard of the NQF. 51% of parents have heard of Learnerships while 72% of parents have heard of FET.

4.3.7 Parents opinions about career awareness initiatives that could be implemented at schools [question 8 of annexure B]

- ❖ 79% of the parents were strongly in favour of career awareness being a priority at all schools.
- ❖ 52% were strongly in favour of teachers as career guidance counselors.
- ❖ 33% of the parents were in favour of teachers job shadowing.
- ❖ 67% of the parents were strongly in favour of career awareness as part of the curriculum.
- ❖ 76% of the parents were strongly in favour of career awareness as an on going process.
- ❖ 36% of the parents were strongly in favour of learners being channeled to a technical college after grade nine.
- ❖ 79% of the parents were strongly in favour of parents playing an active roll in their children's' careers.

4.4 FINDINGS FROM EDUCATOR'S QUESTIONNAIRES

[Refer to appendix C]

The response from the grade 9 educators was 100%.

4.4.1 Technical career awareness programs currently running at the school.

[question 1 of appendix C]

All of the 14 grade 9 educators either indicated that there were no career awareness programs currently being conducted at the school or they were unsure about whether any

were being conducted. Some of the educators further commented as follows:

- ❖ [EO1] “I haven’t attended any technical programs since arriving at the school in July 2003”.
- ❖ [EO5] “Since in my own field I am not doing technical career awareness programs. I am not sure whether others in their departments do it. I just know that kids are seldom taken to exhibitions of career awareness programs”.
- ❖ [EO6] “Lack of person power, money, initiative and knowledge of this field”.
- ❖ [EO7] “Our career awareness programs are aimed at grade 11 and 12 learners who seldom show an interest in technical careers”.
- ❖ [E10] “Teachers are too busy thinking about their subject matter and other problems”.
- ❖ [E13] “In my learning area of life orientation, there is a brief overview on career awareness and making the right decision, but nothing specific with regard to technical careers”.

4.4.2 Attending of career exhibitions [question 2 of appendix C]

More than 50% of grade 9 educators indicated that they attended career exhibitions while the rest never attended any.

4.4.3 Academic schools preparing learners for technical careers [question 3 of appendix C]

Only 2 of the 14 educators who responded to this question indicated that the school was preparing learners for the engineering field while the overwhelming majority indicated

that this was not so or were unsure.

4.4.4 Artisans such as welders, fitters etc. earning more than doctors and lawyers.

[question 4 of appendix C]

Nine out of the 14 educators were of the opinion that artisans had the potential of earning more than doctors and lawyers etc. Four of the 14 were unsure, while only 1 disagreed.

4.4.5 Technical career awareness initiatives implemented by the educators.

[question 5 of appendix C]

Nine of the 14 educators indicated that they had not implemented any career awareness initiatives at the school, while 3 did not respond to this question. The remaining 2 had however implemented some form of career awareness.

4.4.6 Career awareness initiatives that could be implemented at the school.

[question 6 of appendix C]

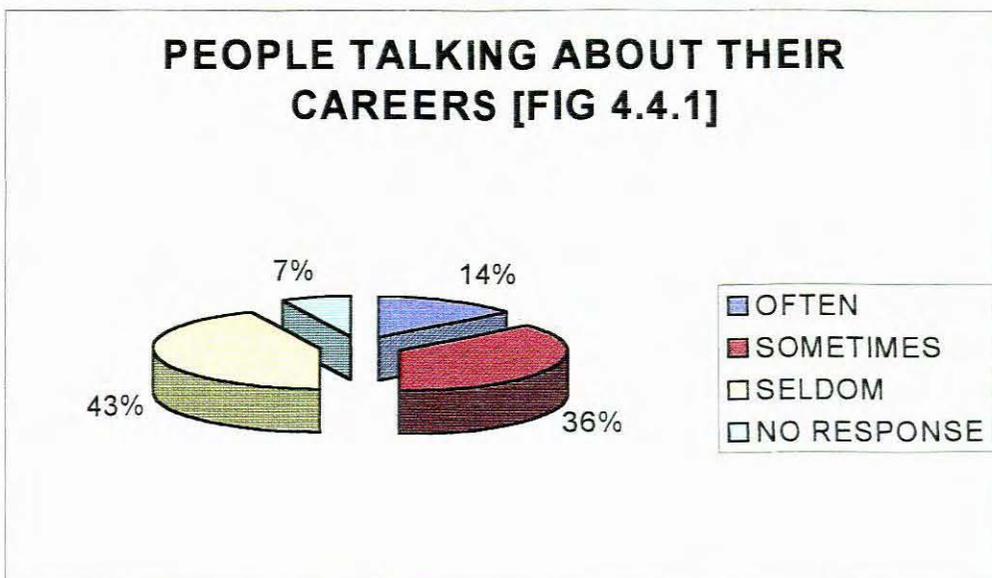
- ❖ 71% of the educators were strongly in favour of career awareness being a priority at all schools.
- ❖ 43% of the educators were strongly in favour of teachers being guidance counselors. Two were against the idea while the rest remained neutral.
- ❖ 36% of the educators were against the idea of teachers job shadowing.
- ❖ Career awareness as part of the school curriculum was supported by 71% of the educators who were strongly in favour of this idea.
- ❖ 74% strongly agreed that career awareness should be an on going process.

- ❖ 36% of the educators were strongly in favour of learners being channeled to a technical college after grade 9 while 36% were against the idea.

4.4.7 Frequency of career awareness interaction at disadvantaged schools.

The data collected for this question refers to question 7 of appendix C.

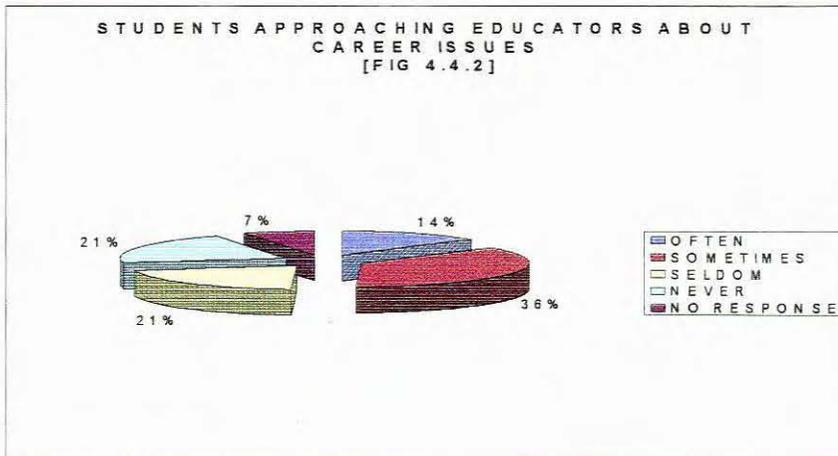
4.4.7.1 People talking about their careers



With reference to fig 4.4.1:

- ❖ Only 14% of the educators indicated that people often came to the school to talk about their careers.
- ❖ 36% of the educators indicated that this only occurred sometimes.
- ❖ 43% of the educators indicated that this seldom occurred.
- ❖ 7% of the educators did not respond to this question.

4.4.7.2 Students approaching educators about career issues



With reference to fig 4.4 2:

- ❖ 14% indicated that students often approached them about career issues.
- ❖ 36% of educators indicated that students sometimes approached them about career issues.
- ❖ 21% of educators indicated that students seldom approached them about career issues.
- ❖ 21% of educators indicated that students never approached them about career issues.
- ❖ There was a 7% non response to this question.

4.4.7.3 Educators freely giving career advice

More than 50% of the educators indicated that they often or sometimes gave career advice to students.

4.4.7.4 Parents approaching educators about career issues

More than 50% of educators indicated the parents never or seldom approached them about career awareness issues.

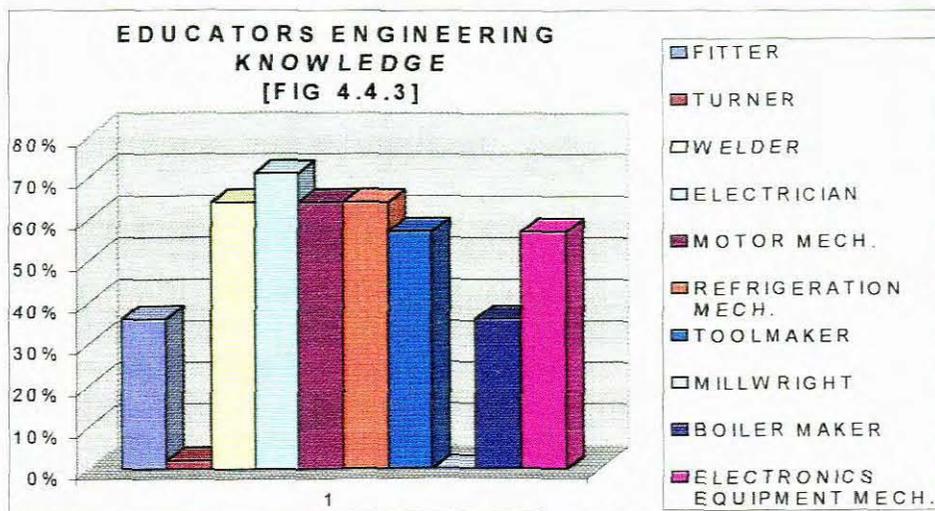
4.4.7.5 Educators discussing career issues with their colleagues

86% of the 14 educators who responded to this question indicated that they sometimes or seldom spoke to their colleagues about career issues.

4.4.8 The educators knowledge of the engineering field

Fig 4.4.3 indicates the level of educators' knowledge about the engineering field. The graph clearly indicates that the educators have some idea of the various trades while nobody knew what a Millwright did and only 2% knew what a Turner did. Some of the responses as to what a Millwright did were as follows:

- ❖ [EO1] Repairs windmills.
- ❖ [EO5] A person that grinds flour or mealie-meal.



4.4.9 Degree of educator's awareness [question 9 of appendix C]

Data collected from this question indicates that:

- ❖ 86% of the educators were aware that students could enter a technical college after completing grade 9.

- ❖ 93% of the educators were aware that not all the subjects in grade nine supported learners who wanted to pursue a technical career path.
- ❖ 71% of the educators were aware that learners could do engineering subjects towards a technical matric.
- ❖ 64% of the educators were aware that learners could obtain a technical matric with N3 and business English and Afrikaans.
- ❖ 57% of the educators were aware that learners could progress via the technical field and eventually obtain a degree.
- ❖ 100% of the educators have heard about FET.
- ❖ 79% of the educators have heard of the NQF.
- ❖ 50% of the educators have heard of Learnerships.

4.4.10 Educators opinions about career awareness [question 10 of appendix C]

The responses to this question are as follows:

- ❖ [EO1] "This is the way to go".
- ❖ [EO2] "I think it is a field that needs thorough research as some grade 9 learners are not necessarily ready for any field specification due to lack of prior exposure".
- ❖ [EO3] "I think it is a good initiative because it addresses issues that are important for the teachers and the learners to be aware of".
- ❖ [EO4] "The education system is not prepared for this. Sufficient planning has not taken place. Colleges are not prepared to cope with learners leaving grade 9. Shortage of money on the part of parents is a problem. Cheap labour for those who cannot go to technical college.

- ❖ [EO6] "Very, very important. Learners must be made aware that there are more careers other than the traditional teaching, nursing, social worker, police officer etc".
- ❖ [EO7] "In the light of the new FET phase, technical career awareness should become an integral part of the school year, at least at grade 9 level".
- ❖ [EO9] "Think it is a very important issue that cannot be avoided. Many times learners want to go into the engineering field but do not have the relevant subjects.
- ❖ [EO10] "This is an eye-opener for me. I believe all teachers, learners and parents should be made aware of careers".
- ❖ [EO11] "I feel there should be more involvement in getting students geared to all opportunities".
- ❖ [EO12] "This is a great approach and it should be a regular routine at all schools".
- ❖ [EO14] "Learners should be encouraged to complete grade 12 with maths and science to enter the engineering field".

4.5 FINDINGS FROM EDUCATOR'S FOCUS GROUP.

(Refer to appendix G)

Permission was obtained from the principal for the educator focus group session to take place in the staff room. All the necessary preparations were made before hand ie: setting up of the video camera and TV and arranging the appropriate seating. Transcribing the tape took approximately 3 hours and was hand written by the researcher. Certain ground rules were agreed upon such as: all cell phones off, only one speaker on the floor at a time, speak clearly and loud enough, make sure that you can see yourself on the TV at all times.

4.5.1 Career awareness programs running at the school.

Educator [E3] responded to this question as follows, “ I don’t know, but I would like to say yes. I’m not saying no, because we have a subject like Technology and things like that. I am sure that the teachers that teach these subjects do mention things about careers”. According to educator [E7], “ I think that all the years there has been the tendency at high schools, specifically this one where we think that passing martric is the way of going to a technical college, technikon or unversity. I think it is just a traditional thing”.

4.5.2 Whose responsibility is it to provide for career awareness.

There we mixed responses to this question. Educator [E7] responded, “ I think each teacher applicable to that specific subject. I teach Geography, so I can elaborate on the Marine Academy in Simonstown”. Educator [E7] further responded, “ I would like to say that it must start in the office at your school and you must make sure that the student gets the correct guidance. I agree that the teacher can sit there, but I would only give the view of my subject and I would be able to market my subject better than someone else. I would suggest then that we get in people, because there are no more guidance counsellors, therefore each teacher must be one”. One educator [E5] was of the opinion that WCED should be more involved with the provision of career awareness at schools. The educator further added that WCED should have a person who has knowledge of career issues so that the learners could go to them for guidance. The educator felt that our schooling system is not geared for this type of thing.

4.5.3 When should career awareness start.

Educator [E11] was of the opinion that career awareness should begin at home where the child sees what the parent, family and friends do. Educator [E2] fully agreed with this, but said that the tendency most of the time is for parents to push the learner towards careers that they failed in. If the parent wanted to become a lawyer, that is what they would want their children to be.

4.5.4 Career awareness as an on going process.

There was not much response to this question with only educator [E5] saying that career awareness should end when one feels fulfilled.

4.5.5 Educators attending career exhibitions.

Educator [E4] indicated that they attended career exhibitions earlier in the year with the grade elevens and twelves. When asked why they only attended exhibitions once a year, educator[E7] responded, " Previously it did happen, but then we had a career guidance counselor, and it was a part of her portfolio. Our time-table does not allow for this, there is not enough time, therefore we are not eager to do it". Educator [E5] indicated that it is a good idea, especially at the lower levels.

4.5.6 The school preparing learners for the engineering field.

Only one educator [E8] responded and said no.

4.5.7 Teachers implementing career awareness initiatives at the school.

Educator [E4] indicated that together with a colleague, they would give worksheets on careers that were taken from the job shop. A wide range of careers would be highlighted. This would apparently take place on a daily basis.

4.5.8 Educators encouraging learners to pursue an engineering career path.

Educator [E4] said that they did not. Educator [E8] said that it was due to the fact that they do not know much about the engineering field. Educator [E7] responded, " I have no idea what a Boiler-maker does. I cannot elaborate on something that I know nothing about. I must admit that the questionnaire has made me more aware".

4.5.9 Artisans earning more than people in other professions.

There wasn't much response to this question with only one educator [E4] saying that an artisan can become his own boss.

4.5.10 Career awareness as a priority at all schools.

Educator [E7] indicated that career awareness should be a priority at all schools while educator [E5 and E7] indicated that it was not a priority at their school. Educator [E5] went on further to say that, " We are mainly academic. We just see that the learners go over to the next grade so that they can finish grade 12. Then we have done our job".

Educator [E7] suggested that they be given the prospectus of a technical college so that they could make the learners aware.

4.5.11 Educators as career guidance counsellors.

Educator [E5] responded no to this question and went on to say that, " I must do what I am supposed to do. I cannot be a counselor in the true sense of the word. I can only advise the learner". Educator [E11] indicated that some of the teachers have limited knowledge of certain careers. " I am just a teacher and that's the knowledge I've got". Educator [E3] indicated that teachers do not have the time. According to educator [E8], teachers had to empower themselves because they have an obligation towards the learners with regard to career awareness.

4.5.12 Educators job shadowing.

The findings indicate that the educators were very positive about job shadowing. Educator [E7] responded that, " Listening to you, it sounds very exciting". They indicated that they would appreciate it if I could arrange for them to job shadow at a company.

4.5.13 Learners job shadowing

The educators agreed that learners should job shadow, and that they had it as a project at the school. When asked about the learner's commitment to job shadowing, educator [E7] indicated that there are those who were committed, but that they were in the minority. Educator [E11] said that, " At the beginning of the year I brought some MTN Science projects for the students. Some of them were interested, but as the weeks went by, nobody pitched up and their interest just died. So I don't know how serious the learners are. Maybe if they knew more about the project or if we had advertised it properly, there might have been more interest".

4.5.14 Career awareness as part of the school curriculum.

The lecturers were in agreement with this suggestion with educator [E8] saying, “Absolutely. A newspaper article indicated that the government realised the skills shortage in South Africa. The Minister of finance indicated that the Education Department should prepare learners for the job market. The emphasis was on entrepreneurship and the creation of self employment”. Educator [E11] was in agreement with this and indicated that, because the minister of Education has made grade 9 the compulsory grade, the department had to ensure that those learners who could not continue had certain skills.

4.5.15 Learners being channeled to a technical college.

The educators were generally in agreement with this idea indicating that there was an arrangement between Athlone Technical College and the principals of Athlone schools. This project was discontinued due to pressure from the WCED for schools to maintain their high student – teacher ratios. According to educator [E8] the survey has now resulted in two students seriously thinking of leaving the school and going to a technical college.

4.5.16 People coming to the school to talk about their careers.

According to the educators, this activity was not taking place from an engineering perspective. Educator [E7] indicated that it used to happen when the school had a guidance teacher. Now it is only the law faculty from a particular university that comes every year to talk about law.

4.5.17 Students approaching educators about career issues.

There was a general consensus among the educators that students do not approach them about career issues. Educator [E11] indicated it could possibly be as a result of the learner's background and a lack of motivation at home. Educator [E7] indicated that the learners were not goal orientated. Educator [E6] felt that learners were just not interested. Educator [E10] felt that it was as a result of a lack of career knowledge that learners were not interested. Educator [E7] added that the learners seem to think that their options are limited.

4.5.18 Parents approaching educators about career issues.

The findings indicate that parents generally do not approach educators about career advice, which confirms the findings from the educator questionnaire [question 4.4.7.4].

4.5.19 Career issues discussed in the staff room.

The findings indicate that discussion about careers only arose when educators discussed the careers of their own children.

4.5.20 Career issues as part of a meeting agenda.

According to the findings, career issues were generally not part of the meeting agenda. As educator [E11] put it, "We only complain about the naughtiness of the learners". Educator [E7] indicated that the only issue that was sometimes discussed at meetings was correspondence pertaining to bursaries.

4.5.21 Learners who are not able to make it to matric.

According to the educators, these learners fall by the way side, because the school has no support system in place for these learners. Some learners do come back for evening classes while others repeat grade 9. Educator [E10] indicated that when he found a learner who was not interested in the academic stream, he would encouraged that learner to pursue what ever interested him or her. Educator [E11] was of the opinion that learners are under so much pressure to complete matric due to their perception that it is a social disgrace not to have this achievement and to leave school at a lower grade.

4.5.22 The educator's general awareness about career issues.

The findings indicate that the educator's who responded to this section lacked a general awareness of career issues. Educator [E7] only became aware that grade 9 learners could enter a technical college when the rector of a college contacted the school in this regard. There were two learners at the college who were coping quite well. Educator [E9] was not aware that grade 9 learners could possibly obtain a degree via the technical route. Educators were generally not aware of the NQF or what a learnership was.

4.5.23 The role of the WCED.

The findings indicate a general consensus among educators that currently WCED is not playing its role with regard to career awareness at this school. Educator [E11] was of the opinion that because WCED has made grade 9 the compulsory schooling grade, they should ensure that there is a backup plan in place to make learners aware of career opportunities.

4.5.24 The educator's general opinion about career awareness.

Each educator was given the opportunity to respond. The findings indicate that all the educators were very positive about career awareness for the learners, and some of their responses are as follows:

[E1] This educator indicated that after grade 9 the learner must have an idea of what he or she wants to become, because the field is so wide. He felt that the parent should also play a role in the process and that after grade 9 the learner should be more streamlined in his career choices.

[E2] This educator expanded on the role of WCED. He indicated that he was at a Comprehensive school that offered practical careers, but because of a lack of equipment, some of the subjects were phased out. WCED apparently clamped down on comprehensive schools and they were changed to ordinary high schools.

[E3] This educator was also of the opinion that WCED should play a bigger role in career awareness at schools. According to this educator, learners should be made aware of the various career opportunities.

[E4] This educator responded as follows, " Career awareness is extremely important. I think that we are still not seen in the board – rooms and sectors where we haven't made our presence felt ie: tourism, entrepreneurship etc. Woman, black woman in particular are not even 1% of top management in big corporations". The educator was also of the opinion that other stakeholders such as Sanlam, CRIC etc, should also come on board to address the career awareness issues at schools.

[E5] This educator was of the opinion that the whole school system should change.

[E6] This educator responded by saying, “ My aim is to see that the students finish school. If I don't empower myself to be more aware, then nothing is going to happen”.

The educator also added that the mindset of all stake-holders must change.

[E7] This educator responded as follows, “ The fact that I am slightly more aware now of technical careers and options that I find exciting at this point does not mean that I will be a good facilitator for these children. It is a fact that not a lot of our children are academics. So for me to be a good facilitator, I need to empower myself. I would like a college or big corporation to give me a comprehensive background knowledge so that I can be a good facilitator at this school”.

[E8] This educator responded as follows, “ This has inspired me to do something”.

[E10] This educator responded as follows, “ Ek dink dit is ‘n goeie ding nou dat ons bewus is van die hele ding. Die kinders moet gehelp word waar hulle hulp nodig het”.

4.6 FINDINGS FROM PRINCIPALS' INTERVIEW.

The interview was done face to face and recorded on video tape. A structured interview schedule [appendix D] was used and the whole process lasted approximately 45 minutes.

4.6.1 Career awareness programs offered at the school

The principal indicated that there were no career awareness programs running at the school and that they do not cater for it. According to him, “It was not the school’s choice, but due to monetary constraints”. The only two technical subjects offered were woodwork and needlework.

4.6.2 Attending career exhibitions.

The principal indicated that he did attend career exhibitions, not only as a principal, but also as a teacher. He would take his learners along to these exhibitions. However, he last attended one in 2000. He indicated that he did find them interesting, and his motivation for saying so was that he wasn't aware of the various career possibilities. He added that during the apartheid system they were not exposed to these opportunities and he was not always aware of them. He also thought that this was the problem with teachers, particularly of his generation. An added problem was that the guidance counselor was no longer a part of the school system, having been done away with after 1996. Because of the teacher pupil ratios and the fact that guidance was not an examinable subject, the guidance counselors were the first to go. The fact that they were not a model C school, or in an affleunt community, the school fees were relatively low, thus they were not able to maintain the status quo due to lack of funds. The principal indicated that there was no follow up done on the exhibitions because he had gone there out of his own interest and that time constraints did not allow for any follow up to take place. He felt that the exhibitions were of benefit to the teachers and learners but that the timing of them was very important. He added that many of the exhibitions only catered for the senior classes. Ideally, exhibitions should be for the grade nines, take place earlier and be goal directed. He could not remember off-hand whether any learners had benefited from the exhibitions.

4.6.3 The school preparing learners for the engineering field.

The principal indicated that he did not think that the school prepared learners for the

engineering field. The only contribution they made was perhaps mathematics and science. The school was mainly academic of nature. For those learners who wanted to pursue an engineering career, the principal indicated that there was not much the school could do but to encourage the learners to do maths and science coupled with woodwork.

When asked about what happens to those learners who do not make it to matric, the principal indicated, “ It is a problem that we have because there is high drop-out rate. These learners have not been catered for”. He added that most students do not do maths at grade 10 level. According to him, OBE maths is not of a high standard, with the result that learners coming from grade 9 to grade 10 have a backlog in maths.

4.6.4 Artisans earning more than people in other professions.

The principal was of the opinion that artisans could earn more than people in other professions, especially if they worked in their private capacity or from home.

4.6.5 Career awareness as a priority at all schools.

The principal agreed that career awareness should be a priority at all schools. He said, “Part of the problem is that children do not know what they want. They lack self esteem and because of this they are prepared to go work in a factory”.

4.6.6 Teachers as career guidance counselors.

The principal did not feel that teachers as career guidance counselors was a good idea at this stage. Currently they are overloaded and he did not think that they could cope. He

felt that it is a specialist job and that teachers might not do justice to it. If they promoted their own field, that would be fine.

4.6.7 Teachers job shadowing.

The principal felt that this was an interesting question, because there was the possibility of teachers wanting to leave the teaching profession once they saw what other people did for a living. Currently most teachers do not see teaching as a viable career option anymore.

4.6.8 Career awareness as part of the school curriculum.

The principal was in total agreement that career awareness should be part of the curriculum. He also felt that it should be an examinable subject and that it should not only be an on going process, but also begin as soon as possible.

4.6.9 Learners wanting to pursue an engineering career, being channeled to a technical college.

The principal indicated that there was two points of view to this question. Firstly, and from a practical point of view, he agreed that learners should be channeled to a technical college because the school does not offer this option. Secondly, and from a survival of the school point of view, he disagreed.

4.6.10 Academic schools making provision for learners who want to pursue an engineering career.

The principal indicated that if he could implement this initiative, he would encourage spray painting and panel beating. What prevents him from doing this is mainly the expertise and lack of funds. He did not think that there would be any constraints from WCED, except finances. If he had the equipment, he would initiate the process.

4.6.11 Who should be responsible for the provision of career awareness.

The principal felt that it is the responsibility of WCED to provide for career awareness. He added that education is more than just learning – it prepares you for life. He also stated that education is not politics – it has nothing to do with politics. He believed that education encompasses all that makes up a child.

4.6.12 The frequency of career awareness occurring at the school.

When asked about people coming to the school to talk about their careers, the principal indicated that maybe one or two people came along who were academics. He did not invite people due to the fact that the school does not have a hall. “ This is what is holding us back – everything depends on the weather – when it rains there is no assembly”. He indicated that there were requests from people to come to the school to talk about their career, but that this would have to take place outside, weather permitting.

When asked whether learners approached him about career awareness issues, he said that it depended upon whether they were juniors or seniors. Some seniors do ask for

assistance because they know more or less where they are going. The junior learners are not aware. He indicated that with his limited expertise, he did give advice freely to the learners.

When asked whether parents approached him about career issues, he indicated that unfortunately, they did not. He was of the opinion the parents lacked the necessary knowledge and said, “ Many of them see the school as a place to tide the children over until they reach a working age. Parents generally don’t get involved. Those who do are of the learners who generally don’t give problems”.

When asked how often he got together with his staff to discuss career awareness issues, the principal replied, “Honestly, I can say that we have not discussed career awareness issues”. He indicated further that, “The school is judged according to matric levels, therefore career planning is more about how many learners we can get into matric, rather than into the workplace”.

4.6.13 The principal’s knowledge of the engineering field.

The principal was not very knowledgeable about the engineering field. He had no idea of what a mechanical fitter did and said that if he were to answer the question, he would be displaying his ignorance. He indicated that he would most probably be able to give learners some advice about engineering careers, but he was not entirely sure whether he could steer them in the right direction.

4.6.14 The principal's general awareness of engineering career issues.

The principal indicated that he was not aware that learners could enter a technical college after completing grade 9. He said that he would not be surprised to know that not all subjects in grade 9 supported learners who wanted to pursue engineering careers.

However, he was aware that learners could obtain a technical matric and go on to obtain a degree via the engineering field. His knowledge of the National Qualifications Framework was however very limited. He did not know what a learnership was or that learners could enter into one after completing grade nine.

4.6.15 The principal's general opinion about career awareness.

When asked about his general opinion about career awareness, the principal replied, “ I think that in the past our communities were hood-winked into thinking that there were only certain areas (careers) that we could go to. I don't think that we were informed enough of the possibilities from a practical point of view. You don't have to be an academic in order to be able to achieve something. Unfortunately, that has been a problem of the past”. He went on further to say that, “ My concern is my survival as a school. If I am going to encourage further Education and Training, what happens to me as a school geared to be academic at the end”.

4.7 FINDINGS FROM WCED OFFICIALS' INTERVIEW.

4.7.1 Introduction

A letter was sent to WCED asking for permission to interview one of their officials on the

career awareness. The rector of Northlink college was approached for permission to conduct the interview at Northlink. Dates and times were arranged before hand with the relevant official. On the day of the interview the venue was prepared. The video camera was set up and checked for proper operation. Once all introductions and paper work was signed the interview commenced and lasted approximately 30 minutes.

4.7.2 Career awareness programs running at previously disadvantaged schools.

The official indicated that they have a broad framework in the GET phase which they call 'World of Work' and that they have a curriculum for it that starts at grade 1 up to grade 9. It hasn't been stipulated exactly what the educators should be doing with this curriculum. He also indicated that teachers were not always aware of this program.

4.7.3 The role of WCED with regard to career awareness.

The official's response to this question was, " At the moment, the only role WCED plays is as curriculum advisors to ensure that the 'World of Work' or careers are included in the curriculum from grade 1 to grade 9".

4.7.4 Policy documents that deal with career awareness.

The official indicated that there were no specific policy documents available.

4.7.5 Whose responsibility is it to ensure that learners are made aware of the multitude of career opportunities available to them.

The WCED official responded to this question by saying, " That is the responsibility of

the educator and obviously the curriculum advisors. We have what we call the focuses or specific outcomes. Outcome number 6 deals specifically with careers or what we call 'World of Work'. After that we call it career guidance". The official went on further to say that, " There are quite a number of schools that call in NGO's to come and speak to the learners".

4.7.6 When should career awareness begin.

The official's response was, " At the moment I am assuming it is done at schools from grade 1 to grade 12". According to the official, career awareness has always been there from grade 10 to grade 12 as it was a part of the guidance at schools. With the advent of OBE, the WCED had it included from grade 1 to grade 9.

4.7.7 Should career awareness be an on going process.

The official felt that career awareness should be an on going process and went on to say that, "Many educators and people in general are not aware of the many careers that exist. In the former dispensation many of us could only become a teacher, doctor, nurse etc. We were restricted by certain laws in the country at the time". He added that, " WCED sees career awareness as an important issue".

4.7.8 WCED's involvement with career exhibitions.

The official indicated that he did get involved with an exhibition organized by CRIC. They had asked him to give input which he did by attending meetings. This exhibition was exclusively for grade 11 and 12 learners. When asked how often this happened, the

official indicated that last year 2002, was the first time he became involved and that CRIC has not approached him in 2003.

4.7.9 Do academic schools prepare learners for the engineering field.

The official responded by saying that, “ I assume some schools do. Others do it through speakers. Normally it is done by the guidance teacher, but because of problems at the schools and lack of staff, specialized guidance teachers left the school”. He added that, “At some schools they do not have a specific period anymore. At the moment it is a once off session at schools or twice a year”.

4.7.10 Artisans earning more than people in other professions.

According to the official it is possible, but depended on the economic situation of the country. He indicated that he knew people who could possibly be earning more, but that they own their own companies.

4.7.11 Career awareness as a priority at all schools.

The official responded by saying, “ The mere fact that it is written into the curriculum, I could easily say that it is a priority in National Education”.

4.7.12 Educators as career guidance counselors.

The official responded by saying that, “ I think they should be. They are the people who have access to the learners”.

4.7.13 Educators job shadowing.

The official indicated that this would be a good idea if the educators had the time. He further explained that the educators could get practical experience of the jobs other people do and through that be able to make the learners more aware of a career path they could follow.

4.7.14 Learners job shadowing.

The official's response to this question was that job shadowing is a part of the curriculum.

4.7.15 Learners wanting to pursue an engineering trade career being channeled to a technical college.

The official indicated that the idea of OBE was to give learners a chance at an early age to go into a specific career discipline. He further mentioned that there are schools who offer engineering up to N3, but that they are very few. The official also indicated that the Minister had previously mentioned that learners should become more technical because they were still very much academically inclined.

4.7.16 Academic schools providing for learners who want to pursue an engineering career.

The official's response was, " Due to the lack of staff and the lack of people teaching in the engineering field, it cannot be done practically, unless the school is of a technical stream". He further added that the issue could only be addressed if the finances were

available to build the necessary structures and to appoint the necessary educators. He also commented that, “ Many a time, people who have the expertise rather go into business”.

4.7.17 The frequency of career awareness issues being discussed at WCED.

The official responded by saying, “ Not specifically. We work out a program for the educators on life orientation. Career awareness is embedded in the program. So in essence, we do discuss career awareness”.

4.7.18 A general awareness of career issues.

The official was not aware that learners could enter a technical college after grade 9. He was also not aware that not all subjects in grade 9 supported learners wanting to follow an engineering stream. The official was aware that learners could obtain a technical matric and that they could obtain a degree via the technical route. The official was knowledgeable about the NQF (National Qualifications Framework) and FET (Further Education and Training). However, he did not know what a learnership was and indicated that this was the first time he had heard about it.

4.7.19 GET (General Education and Training) linking up with FET (Further Education and Training).

The official indicated that many of the learning areas in the GET phase are carried over into the FET phase.

4.7.20 Filtering of career awareness information to all stakeholders.

When asked how career awareness information is filtered to all stakeholders, the official indicated that this is done through the curriculum, advisors, NGOs and workshops with the educators. The educators in turn should filter the information to the learners and hopefully the learners would inform the parents. He indicated that parents are also sometimes invited to talks at the schools, but not all schools did this.

4.8 Conclusion: Trends emerging from the findings.

The general trend seems to be that there is a serious lack of knowledge about career awareness among all the stakeholders and that very little is being done about it.

The principal.

His main concern is for the survival of the school as an academic institution. So the trend here is for him to encourage all the parents to keep sending their children to the school as long as possible. The educators are most probably also instructed not to steer learners away and the learners are most probably encouraged to complete matric. All this is done at the expense of the learner.

The educators

There seems to be a trend for educators to focus mainly on the matric results without considering whether the subjects that the learners are doing will benefit them with their career choices. Very little attention is given to the importance of career awareness and how it impacts on the learner's future. The educators seem to be powerless because they

are governed by the WCED policies. The high student – teacher ratios cause them to be overloaded with little time to focus on career awareness issues.

The learners

The learners are at the mercy of the school, their parents, and the education department, so they find themselves in a precarious position. The findings indicate that all the stakeholders have a very limited knowledge of career awareness issues, so the learners, especially those who want to pursue an engineering career, find themselves in a helpless situation. The trend therefore is for the learner to attend school up to grade 9 because it is compulsory for them to do so. Some of them pass and continue to grade 10 while others fall by the way side. Those who continue through to grade 12, but want to pursue an engineering career do so with the wrong subjects. As a result of these problems, there is a high failure rate at the school.

The parents

The parents are not skilled to deal with career awareness issues concerning their children. They are dependent on the school for guidance. However, the school is not equipped to deal with the situation, so most parents end up with problem children who do not see any value in what they are doing at school. The trend therefore is for most parents to encourage their children to remain at school as long as possible so that they can at least obtain some education that will enable them to find work one day. Our factories and supermarkets are most probably full of these learners.

WCED

The findings indicate that there is not enough interaction between the school and WCED.

The school has to function in the face of adversity in the form of financial constraints, gangsterism, the absence of a culture of learning, high student – teacher ratios, lack of physical resources, vandalism and many more. The trend from WCED seems to be that the school must be proactive and sort its own problems out.

CHAPTER 5

ANALYSIS OF THE DATA

5.1 Introduction

In this chapter quantitative and qualitative data is interpreted and discussed. The literature review will be scanned in order to source backup references. Items discussed in this section will be the learner questionnaire, parent questionnaire, educator questionnaire, learner focus group data, educator focus group data, the principal interview and the WCED interview.

5.2 ANALYSIS OF FINDINGS FROM THE LEARNER'S QUESTIONNAIRES

[Refer to appendix A]

In this section the findings from the learners' questionnaires are analysed. The questions were clustered around similar topics and the learner's responses to these topics are now analysed.

5.2.1 Career awareness programs running at the school [question 1 of appendix A]

Only 3% of the learners who responded to this question indicated that there are career awareness programs running at the school. Career awareness programs help learners to understand why they are at school. Thus, without career awareness, for many learners there could be very little purpose for being at school. While schooling is part of a general education, it is also part of a career process and the choices that learners make with regard to subjects taken or dropped should be based on an awareness of career needs or prerequisites. According to White (1998) career awareness opens the eyes of children to

new possibilities for their future, showing them the many different jobs people do, and sparking new dreams of what they can achieve in life. Noble and McGinn (n/d) agree that it is important for teens to be exposed to a wide range of career options, and to be encouraged to find out as much as possible about the ones that spark the greatest interest.

5.2.2 The frequency of career awareness interaction occurring at the school.

[question 2 of appendix A]

5.2.2.1) People coming to the school to talk about their careers.

[question 2a of appendix A]

The findings reveal that this activity does not occur often. People talking about their careers are a valuable source of information. It also shows the learner the road that has to be walked towards the career objective and the possible pitfalls to be avoided.

5.2.2.2) Learners approaching their teachers about career issues [question 2b of appendix A]

The findings indicate that 60% of learners never or seldom approached their teachers with regard to career awareness issues. Ideally, learners should feel free to approach their teachers about career issues. It is important for counselors and teachers to help students make the best possible learning and career choices so that they may have a full life and be contributing members of society. (N.C., 1999)

5.2.2.3) Learners attending career exhibitions [question 2c of appendix A]

The findings indicate that 63% of the learners have never attended a career exhibition. Career exhibitions tend to occur annually at tertiary institutions and during festivals, such as the recent “Learning Cape Festival”, and are a valuable source of information. The reason why the school does not take the opportunity for its grade 9 learners to visit these exhibitions could have to do with the expense of such visits, which are usually provided to grade 11 and 12 learners. However, for learners at these levels, attendance at career exhibitions is probably too late to enable the learner to make meaningful career choices, as the matriculation subjects have already been chosen.

5.2.2.4) Learners working on projects about jobs [question 2d of appendix A]

Eighty percent of the learners often or sometimes work on projects about jobs. Such projects enable the learner to develop research skills, as well as to find out about career options. However, it is not clear whether such projects are followed up with sound, constructive career advice.

5.2.2.5) Learners going on field trips [question 2e of appendix A]

Seventy two percent of the learners indicated that they never or seldom went on field trips. Field trips can be a valuable learning experience and a source of information, providing the learner with practical experience in different job contexts.

5.2.2.6) Learners job shadowing [question 2f of appendix A]

Job shadowing is probably one of the most important aspects of career awareness, and the findings for this question indicates that 61% of learners never job shadowed. Job shadowing provides the learner with first hand experience about a particular job, and as such is an important learning experience. By participating with their mentors in work place activities, students gain skills and exposure, which may prove valuable in the transition to work. (Christopher, 1998). The staff in schools in Vermont (1998) report that students who participate in job shadowing are excited and often are more motivated learners. Furthermore, integrating job shadowing into a school's program enables the school to enhance their career development curriculum.

5.2.2.7) Learners using computers for career purposes [question 2g of appendix A]

In previously disadvantaged school, money is always a problem. This is clearly evident in the findings of this question where 73% of learners have never used a computer for career purposes. The Internet is a valuable source of information but would probably be beyond the budgetary scope of this school. In the light of the importance of computer skills for contemporary jobs, many schools have embarked on a pro-active fundraising campaign for computers and training for the learners. Such an effort on the part of the principal and teachers would indicate the sense of the importance of computers for learner's development, and particularly, job readiness.

5.2.2.8) Learners doing career research [question 2h of appendix A]

Career research can broaden the knowledge base where learners can share their knowledge. The findings indicate that only 16% of the learners often engaged with this activity. During the learner focus group session, learners were unable to fully elaborate on aspects pertaining to the respective careers they had chosen such as; what subjects to take, where to obtain bursaries, where to do further studies etc. There does not seem to be any structures in place for this activity.

5.2.2.9) Teachers talking to learners individually about career awareness.

[question 2I of appendix A]

The findings indicate that teachers are talking to learners about career issues, but that this activity does not occur frequently and often lacks the kind of ‘follow through’ in the form of specific information about career needs and prerequisites. The educator questionnaires indicate that they do not have a thorough understanding of technical careers and therefore their contribution is limited.

5.2.2.10) Parents talking to learners about career awareness.

[question 2j of appendix A]

The findings indicate that parents are concerned about their children’s careers with 84% often or sometimes talking to their children. It is not clear from the findings whether the learners receive the correct career awareness information, particularly with regard to technical career choices, as the parent questionnaires indicate that they do not have a good understanding of technical careers.

5.2.2.11) Learners talking to their school friends about careers.

[question 2k of appendix A]

The findings indicate that grade nine learners do talk to each other about careers. While discussion of careers among peers is important for raising awareness of different careers, it is not likely, judging from learners' responses, that information provided in this way is accurate.

5.2.2.12) The learner's knowledge of the Engineering field.

[question 3 of appendix A]

Knowledge of the various engineering trades will help the learner to make informed career choices. Most learners seem to have a fair amount of knowledge about the more traditional occupations such as, Social worker, doctor, lawyer etc., but not much knowledge about the engineering trades. Furthermore, it is doubtful whether the parents and educators will be of much assistance, given their limited knowledge of engineering trades.

5.2.2.13) The learner's opinion as to whether people in Engineering can earn more than people in other professions [question 4 of appendix A]

The findings indicate that there are mixed opinions on this issue. Nevertheless, if learners were convinced that people in engineering could earn more than people in other professions, it would encourage them to perhaps consider a career in this direction.

5.2.2.14) The learner's general awareness about technical career issues.

[question 5 of appendix A]

It is important for learners to have a general awareness of technical career issues when they engage with planning for their futures. The findings indicate that most learners have a general awareness of technical education issues, but whether they are able to utilize this information for career planning is not evident. The data also indicates that there is very little or no interaction between schools and technical colleges, with most learners not having heard of Northlink College. Learners need to have a general awareness of technical career issues as an option. Research by Richard Arum and Yossi Shavit demonstrate that vocational training programs reduce the incidence of unemployment among its graduates. They also increase students' chances of finding work as skilled labourers, with better pay and working conditions than they would normally receive. In this way, vocational training acts as a safety net that reduces the risk of falling to the bottom of the labour queue. (Christopher, 1998)

5.2.2.15) Career awareness initiatives that could be implemented at the school.

[question 6 of appendix A]

The findings indicate that there is very little or no career initiatives currently implemented at the school. Most learners indicated that they were strongly in favour of career initiatives being implemented. These initiatives are important and will definitely benefit the learners with their career planning. With these initiative in place, the learners would have ample opportunity to narrow down their career choices as they reach the end of their schooling phase, be it grade 9 or matric. What follows would then be a natural

progression to the career objective. The schooling phase would then have served its purpose.

5.2.2.16) The learner's interest in a career in the engineering field.

[question 7 of appendix A]

The data collected indicate that most learners were not interested in a career in the engineering field. South Africa is a developing nation with a technology dependent economy. However, according to Zozo Siyengo in Peterson (2002), “ We face the paradox of shocking unemployment rates and a massive skills shortage”. The findings indicate that there is not enough meaningful technical career awareness currently happening at the school and as such, many learners do not have the option of making career choices in this direction. Compounding the issue is the negative perception that learners have about the engineering field, as can be seen from some of the comments chosen:

- ❖ Do not know anything about the *Engineering field*. [Learner 01/03/04/07/08/14]
- ❖ Do not know anybody in the engineering field. [Learner 03/09/10]
- ❖ People in engineering do not earn much. [Learner 03/05/09/12/13]
- ❖ Engineering trades are seen as inferior to other professions. [Learner 14/18/29]
- ❖ My friends and family will not think much of me. [Learner 09/18/29]
- ❖ Engineering is a dead end street. [Learner 14/21/29]
- ❖ Engineering trades are hard work. [Learner 03/08/12/14]
- ❖ Engineering trades are for people with poor education. [Learner 09/18/21/29]

5.3 ANALYSIS OF FINDINGS FROM LEARNER'S FOCUS GROUP.

5.3.1 Learners knowing what they want to be when finishing school.

It is important for learners to know what they want to be when they finish their schooling, whether they reach matric or decide to leave school after grade 9. Learners can only know what they want to be when leaving school if they were exposed to career awareness programs. Learners face tremendous challenges in today's demanding economy. They will have difficulty in deciding which careers to pursue if they have no experience, haven't evaluated their skills and interest, or haven't explored their options (N.C. 1996). The findings indicate a possible perception among females that jobs in the engineering field are only for males, given the fact that none of the females chose jobs from the engineering field. With proper career awareness programs in place it is highly likely that females would also be attracted to the engineering field.

5.3.2 Learners talking to their parents about what they want to be.

The findings from the parent questionnaire (see 4.3.4) indicate that the parent's knowledge of the engineering field is lacking. They never attend career exhibitions and most do not ask teachers for advice (see 4.3.1) It is therefore highly unlikely that they could give any meaningful advice to their children about career choices.

5.3.3 The type of work learner's parents do.

The findings indicate that many learners visited their parents at work, but given the general occupations that they were in would most probably not be what the learners

would aspire to. Parents are the first teachers that children encounter. Most of the parents of the learners at this school most probably did not receive a decent education given the inequalities in the education system of the past. According to Christopher (1998), the system of the past bred failure and dissatisfaction and held little promise for the majority of South Africa's children. It is estimated that nearly 150,000 children left the school system each year during the 1980's. It is therefore highly unlikely that these parents qualified in any trades or professions, given the fact that they find themselves in a disadvantaged community. It is therefore highly unlikely that many of these parents could serve as role models for their children.

5.3.4 Learners talking to their teachers about careers.

The findings of the focus group session and that of the learner questionnaire (see 4.1.2.2) both indicate that learners generally do not talk to their teachers about career issues. Evidence shows that the school seems to be stuck in a matric syndrome and that this is all that is spoken about. There doesn't seem to be any connection between the school and work which would encourage learners to talk to their teachers about careers.

5.3.5 People coming to the school to talk about their careers.

The findings of the learner questionnaire and the focus group both indicate that this activity does not happen often enough. People in industry have accrued a vast amount of experience over the years that the learners could learn from. They have walked the road that many learners still have to tread. They have made many mistakes that learners can avoid. They are a valuable source of information that is freely available. Utilizing this

resource is like capturing time in a bottle. People who destroyed their careers as well as those who failed to make a success of their careers should also be encouraged to talk to the learners, so that hopefully, the learners would be able to see the importance of making the correct career choices.

5.3.6 The best job in the world.

According to Matzukis (2002), matriculants are often under the impression that there is just one special job title that is reserved for each person. He adds that it must be understood that, during his or her working life, a person can undertake a whole series of different jobs, and in each position, may enjoy the privilege of job satisfaction. Matzukis states that in choosing a career there are no rules. One must choose a career that will bring you happiness and job satisfaction. As he puts it, “ It becomes something of a ‘life sentence’ if a person chooses and then embarks on a career for false or wrong reasons”.

5.3.7 The learner’s knowledge and interest about engineering trades.

The findings from the learner focus group indicate that most learners are not aware of the various engineering trades. There doesn’t seem to be much interest in this field. This is in line with the findings from the learner questionnaire. Learners must be made aware of careers in the engineering field so that more of them can be attracted to it. South Africa as a developing nation needs more engineers. The findings indicate that academic schools are far too busy focussing on getting learners through matric with little attention given to career awareness for grade 9 learners. According to Zozo Siyengo in Peterson (2002), the country faces the paradox of shocking unemployment rates and a massive skills shortage.

5.3.8 Learners seeing engineering trades as inferior to other professions.

This negative perception stems from the fact that the school is academic in nature and the teachers most probably promote careers in other professions rather than in the engineering field. According to Gerber, et al (1998), academic study is generally perceived to be more valuable than training for useful technical occupations. Engineering trades conjure up ideas of dirty overalls; greasy hands and dirty workshops as opposed to clean white dust coats worn by doctors and chemists, the clean stately robes worn by lawyers and judges. As a result of these perceptions, learners, especially females, would most likely steer away from engineering careers.

5.3.9 The learner's knowledge of technical colleges.

The findings of the learner focus group indicate that learners are not very knowledgeable about technical colleges. The progression from high school to a technical college should be a natural one. However, because the school has an academic stream, it is highly unlikely that much would be said about technical colleges. It is therefore most likely that learners would have a limited knowledge of technical colleges.

5.4 ANALYSIS OF FINDINGS FROM PARENT QUESTIONNAIRES

[Refer to appendix B]

The parents of the learners were asked similar questions in order to analyse their perceptions and attitudes towards technical career awareness. The findings indicate that only 25% of the parents responded to this questionnaire. Whether the remainder are either not concerned about their children's careers or they simply do not have the time to give

it any attention is not clear. Nevertheless, the findings indicate that the 25% who responded were concerned about their children's careers. According to Noble and McGinn, (n/d) every generation of parents faces the challenge of preparing adolescents for an evolving world. But the rate of change has escalated dramatically. For most of us, simply keeping pace with shifting conditions in our own lives is a formidable endeavour. Recognizing the unpredictable economy that our young people are entering, it becomes an especially daunting responsibility to guide them in the planning of their future.

5.4.1 Parent involvement in career awareness issues [question 1 of appendix B]

It is important for parents to involve themselves in career awareness issues if they want to be in a position to help their children. According to Vermont (1998) the parent is the child's first and best teacher. Furthermore, it may seem early to start thinking about careers when the child is in the lower grades, but it is not. They go on to say that for the following years - and the rest of his or her life- the child will be learning about his or her own unique skills, interests, and goals. The child will discover classes and careers that excite him or her, and some that do not. Starting early is starting smart. The parent must work with the child now to plan and prepare for the future. The findings indicate that although parents often spoke to their children about careers, it is doubtful whether the information would be of any meaningful use to the learner, given the limited understanding and knowledge they have about career issues which is evident from other data gathered. Noble and McGinn (n/d) suggests that it is the parents' duty to ensure that their children are in a position to make informed career choices by participating in the career process.

5.4.2 What their children want to become [question 2 of appendix B]

Although learners of most parents knew what they wanted to become, 48% chose careers outside the engineering field and 31% were unsure. It is evident from the findings that the more traditional jobs such as Teacher, Nurse, IT, Chartered Accountant etc. were more popular. The findings also indicate that learners, parents and teachers are not very knowledgeable about engineering and it is doubtful whether this field would be considered when career choices are made.

5.4.3 Parent's opinion of whether people in the engineering field can earn more than people in other professions [question 3 of appendix B]

Career awareness is ultimately about getting a job and earning a good wage. Learners need to know that when choosing a career in the engineering field, it is possible to make good money. The findings indicate that more than 50% of parents agreed that people in engineering could earn more than people in other professions. When parents become more aware of the engineering field, it is likely that this factor would influence them to encourage their children to pursue engineering careers.

5.4.4 Parent's knowledge of engineering trades [question 4 of appendix B]

For parents to offer career advice about the engineering field they need to be knowledgeable about it. The findings indicate that this is not the case. Parents would therefore be more inclined to choose more traditional careers such as teacher, social worker, lawyer etc, because it is what they know.

5.4.5 Careers that parents wanted for their children

[question 5 and 6 of appendix B]

Parents in general want the best for their children, and as such would want their children to pursue good careers. Because of the stigma attached to engineering trades and the fact that they are seen as inferior to other professions, parents would be more inclined to steer their children away from making career choices in this direction. The findings indicate that this is the case with only 6 out of the 22 careers parents chose being engineering trades. The implication here is that parents need advice and information about engineering careers so that they can in turn offer good advice to their children.

5.4.6 The degree of parent's awareness about technical career issues

[question 7 of appendix B]

The findings indicate that parents are fairly knowledgeable about technical career issues. However, it is highly unlikely that they would include it in their discussions about careers with their children, because the findings indicate that most parents lack detailed knowledge of engineering trades and favour the more traditional professions i.e.: doctor, lawyer, teacher etc. Entry into these courses, which are usually offered at universities, usually have high academic requirements, and there are not many places for the students. In contrast, while there are academic entrance requirements for engineering trade programs in the FET sector, these courses are offered at a lower level and learners have a good chance of achieving success. Furthermore, there is a shortage of technical skills in South Africa, so that qualified artisans and engineers find it relatively easy to find gainful employment

5.4.7 The parent's opinion about career awareness initiatives that could be implemented at schools [question 8 of appendix B]

The findings indicate that most parents were strongly in favour of something being done to improve career awareness at the school. Findings for the learners and educators indicate that there is very little in the way of career awareness happening at the school. It is therefore most likely that the situation would dramatically improve with these interventions. According to *Pathways to success: A career planning resource for parents* (N.C.,1998) studies have shown that individuals who receive early career training and counseling services:

- ❖ Improve school involvement and performance
- ❖ Increase personal and interpersonal skills
- ❖ Improve preparation for careers
- ❖ Increase career awareness exploration and planning skills

5.5 ANALYSIS OF FINDINGS FROM EDUCATOR QUESTIONNAIRES

[Refer to appendix C]

The educators were asked questions similar to those posed to the learners and parents in order to determine their knowledge, attitude and understanding of career awareness pertaining to the engineering field.

5.5.1 Technical career awareness programs currently running at the school

[question 1 of appendix C]

It is highly unlikely that there would be any technical career awareness programs running at the school due to the fact that it is an academic school. The findings from the educator's responses to this question indicate that this is indeed the case.

5.5.2 Educators attending career exhibitions [question 2 of appendix C]

The findings indicate that more than 50% of educators attended career exhibitions, but it is not clear whether this activity has been beneficial to the learners. As indicated earlier, career exhibitions are a valuable source of information but they are few and far between and at most schools, only the grade 11 and 12 learners are considered. Attendance at these exhibitions could be costly, and given the budget of most disadvantaged schools, there probably is no money to fund this activity. Educators would most probably not be inclined to foot the bill given the meagre salaries they earn.

5.5.3 Academic schools preparing learners for technical careers

[question 3 of appendix C]

Educators at academic schools are academics with very little or no knowledge of the engineering field, and it is therefore highly unlikely that the school will be able to prepare learners for engineering careers. The findings substantiate this claim with 12 of the 14 educators who responded indicating that the school was either not preparing learners for the engineering field or that they were unsure whether this was the case.

5.5.4 The educator's opinion as to whether people in engineering could earn more than people in other professions [question 4 of appendix C]

Technical education is under valued in this country and as such creates the perception that people in engineering trades generally earn less or are not capable of earning more than people in other professions. According to Christopher (1998) when he discussed the value of technical education with experienced people, from teachers and counselors to government officials, they all agreed on one thing: businesses do not recognize or value a technical education. When you see an expensive car going by, the perception is that it is a doctor or a lawyer. You are not inclined to think that it could possibly be a Fitter or a Welder. The findings indicate that more than 50% of the educators felt that artisans had the potential of earning more than people in other professions. Whether they filter this information to the learners is not clear. The findings from the learner questionnaires on this issue indicate that they have mixed feelings about the issue and it is most likely that educators are not filtering the information through to them.

5.5.5 Technical career awareness initiatives implemented by educators at the school [question 5 of appendix C]

Given the over-crowded conditions, lack of resources, heavy work-loads and low teacher morale (Christopher, 1998) it is highly unlikely that teachers would be able to implement career awareness initiatives at their schools. The findings indicate that more than half of the educators had not implemented any career awareness initiatives at the school.

5.5.6 Career awareness initiatives that could be implemented at the school

[question 6 of appendix C]

The findings indicate that most educators were strongly in favour of career awareness initiatives being implemented at the school. These initiatives should be a coordinated effort and should be part of the curriculum in order to ensure that it is an on going process. Learners would most likely benefit from these initiatives, because it would give *meaning and purpose to their schooling. The educators would definitely be empowered* by these initiatives because it would enhance their abilities to provide the learners with useful career information. With this the learners would then be able to make informed career choices.

5.5.7 The frequency of career awareness interaction occurring at the school

[question 7 of appendix C]

5.5.7.1) People talking about their careers [question 7a of appendix C]

The findings indicate that only 2 out of 14 educators indicated that people often came to the school to talk about their careers. The findings also indicate that educators have very little knowledge about the engineering trades, therefore people talking about their careers could greatly offset this shortfall. People talking about their careers would most likely be of maximum benefit to the learners, because they speak of first hand experience.

5.5.7.2) Students approaching educators about career issues [question b of appendix C]

The schooling phase forms part of a career process, and as such, educators should be a source of career information. Failing this, they should then facilitate the process. The findings indicate that not enough interactions between the educators and learners are taking place. Three out of 14 educators indicated that they were never approached about career issues.

5.5.7.3) Educators freely giving career advice [question 7c of appendix C]

Educators should take the initiative to give career advice to learners. Learners cannot be expected to make informed career choices without having had the necessary exposure. The findings indicate that more than 50% of the educators often or sometimes gave career advice, but it is doubtful whether the information regarding the engineering field would benefit the learner, given the limited knowledge that the educators possess about the field.

5.5.7.4) Parents approaching educators about career issues.

[question 7d of appendix C]

The findings indicate that more than 50% of the educators indicated that parents never or seldom approached them about career issues. It is therefore most likely that the parents perceive the educators to either know a lot about career awareness or very little.

Nevertheless, parents should feel free to approach educators about career issues and educators should empower themselves to be able to deal with the situation.

5.5.7.5) Educators discussing career issues with their colleagues.

[question 7e of appendix C]

The findings indicate that 86% of the educators sometimes or seldom engaged in this activity. It is most likely that they under-value the importance of career awareness, particularly in the technical and engineering field. The fact that the school is mainly judged by its matric results could be the reason why the focus on career issues takes a back seat.

5.5.7.6) The educator's knowledge of the engineering field.

[question 8 of appendix C]

Although the findings indicate that most educators have some idea of engineering trades, it is doubtful whether they could formulate a career path for the learners. Knowledge of the engineering trades would benefit both the learner and the educator. This knowledge would empower the educators and allow him or her to make valuable inputs into the career choices of the learners. A broader knowledge of different careers would allow the learners to make informed subject choices and whether to remain at the school or move to a technical college.

5.5.7.7) The degree of educator's awareness of general technical career issues.

[question 9 of appendix C]

For educators to impart proper technical career advice, they need have a general knowledge of technical career issues. The findings indicate that most educators are aware of technical career issues, but whether they impart this knowledge to the learners is not

clear. The fact that many of the learners continue into grade 10 could be an indication that they are not aware that they could continue their education at a technical college and eventually do a degree. The focus at this school seems to be on the matriculants, the matric ball and their graduation. Not much thought goes into the career options for these learners. Career awareness is not seen as a priority at this school.

5.5.7.8) The educator's opinion about the issue of career awareness.

[question 10 of appendix C]

All educators of the grade 9 learners welcomed the research into the problem of career awareness at their school. This study was long overdue. Countries like Canada, America, Australia to name but a few, are far ahead with their career awareness programs. Illinois in America has already conducted a 5 year research into the implementation of career awareness initiatives at schools and the results were extremely positive (IOES 2001). The comments from the educators were very positive [see 4.4.10 – chapter 4]

5.6 ANALYSIS OF FINDINGS FROM EDUCATOR FOCUS GROUP.

5.6.1 Career awareness programs running at the school.

The findings of the educator focus group session confirms the findings of the educator questionnaire, that no career awareness programs are currently running at the school.

There is no doubt that career awareness programs should be a regular part of the school phase. The current situation in schools today such as the high student teacher ratios, work

overload, lack of discipline and the absence of a culture of learning, would probably make it difficult for educators to implement any career awareness programs at the school.

5.6.2 Whose responsibility is it to provide for career awareness?

The findings indicate that there were mixed opinions of who should be responsible for career awareness at schools. What the educators failed to mention is the fact that career awareness should be stakeholder driven. Parents, educators, the community, family and friends and business all have a role to play in the career awareness that learners need to be exposed to.

5.6.3 When should career awareness start.

The findings indicate that career awareness should begin at home with the family and friends. This is probably correct, but the findings indicate that the parents are not very knowledgeable about career issues and it is doubtful whether their advice would benefit the learner. Nevertheless, according to Pathways to success N.C. (1999), career development is a life long journey that begins when a young child chooses to play with building blocks, a tea set or trucks. When retired people decide on new leisure time activities, they are still participating in this journey. From this it is evident that career awareness is also an ongoing process.

5.6.4 Educators attending career exhibitions.

It takes dedicated teachers who are prepared to go beyond the call of duty to give of their time to attend career exhibitions. As the saying goes, “ Teachers are over worked and

under paid”, it is highly unlikely that they would attend these exhibitions. The findings indicate that teacher’s timetables do not allow for this because there is too little time.

5.6.5 The school preparing learners for the engineering field.

The findings of the educator focus group further compounds the fact that the school does not prepare learners for the engineering field. It is therefore most likely that this is the cause of the high drop out rate as mentioned by the principal.

5.6.6 Teachers implementing career awareness initiatives at the school.

The findings indicate that only one educator really bothered to implement something, which gives the impression that not much is really happening in the way of career awareness initiatives. These findings are in line with the findings of the educator questionnaire.

5.6.7 Educators encouraging learners to pursue engineering career paths.

The findings indicate that educators do not encourage learners to pursue engineering trade careers. Many reasons have been put forward as to why this is not happening, but in the end it is the learner that suffers. The principal has indicated that by channeling learners to technical colleges, the existence of the school would be affected. However, the learner's future is at stake, and the longer it takes to get the process right, the more learners will suffer. When the learner suffers, the country suffers. The learners are the human resource that the country must invest in.

5.6.8 Artisans earning more than people in other professions.

The findings from the educator focus group are not inline with the findings of the educator questionnaire, which indicated that 50% of the educators were of the opinion that artisans could earn more money than people in other professions. However, they did not say how this could happen, which is probably why only one educator responded to this question in the focus group. According to Christopher (1998), there is a belief that work orientated programs are somehow irregular or not part of an academic education. This negative perception has relegated artisan status to second place. It is therefore most likely the perception that artisans are not capable of earning high wages.

5.6.9 Career awareness as a priority at all schools.

The findings of the focus group indicate that career awareness for grade 9 learners is not a priority at this school. The findings indicate that career awareness is only applicable to the grade 11 and 12 classes. Career awareness for grade 11 and 12 learners at an academic school who want to pursue an engineering trade career has most probably come a little to late, because these learners have already chosen their subjects. The findings indicate that not all the subjects at an academic school support learners who want to pursue an engineering trade career. Prioritizing career awareness at academic schools would most probably ensure that learners make the right career choices. Learners who want to follow the engineering route would therefore not end up wasting their time in an academic stream, but instead divert to a technical route.

5.6.10 Educators as career guidance counselors.

The findings indicate that teachers are not in favour of being career guidance counselors. This concern is well founded given the current situation in schools today. There are high student teacher ratios and teachers are generally overloaded with work as a result of the OBE system. There just isn't any time. However, teachers in countries such as America and Canada are getting involved. In Illinois America, 1,400 teachers participated in the elementary and middle school career awareness and development grant. One of the findings of the literature survey conducted revealed that educators involved in career training have improved the classroom – based career planning activities (IOES, 2001)

5.6.11 Educators job shadowing.

The findings indicate that the educators were very enthusiastic about job shadowing. Teachers participating in this activity will most probably be able to pass on valuable career information to the learners. Industry has a social responsibility to give something back to the community by allowing educators to job shadow at their premises. Ultimately, it is members of the community that inevitably end up being employed by Industry.

5.6.12 Learners job shadowing.

Learners job shadowing will require the commitment of the teachers. Although the findings indicate that educators are in favour of the idea, it is highly unlikely that they would be able to coordinate the process given their heavy work schedules. According to the Vermont report (1998), job shadowing is one of the most popular work-based

learning activities because it provides students with opportunities to gather information on a wide variety of career possibilities before deciding where they want to focus their attention.

5.6.13 Career awareness as part of the curriculum.

The findings indicate that currently, career awareness is not a part of the school curriculum. Educators would therefore most likely not be inclined to include it in their daily classroom teaching due to the already overburdened schedules. According to Pathways to success, (N.C.,1999), school counselors and teachers can incorporate career counseling and guidance into the classroom curricula that students receive every day. In North Carolina in America, career awareness is very much a part of the school curriculum. The focus of the elementary grade is on career awareness. During the middle school years, students continue to be aware of jobs and careers, but the focus is on exploration, (N.C., 2001).

5.6.14 Learners being channeled to a technical college.

The findings from the principal interview indicate that although the principal sees this as a good idea, he is not in favour of it due to his concern for the existence of the school, which is dependent on student numbers. It is therefore highly unlikely that the educators would encourage learners to continue their education at a technical college as this would go against the wishes of the principal that could lead to unwanted conflict.

5.6.15 People coming to the school to talk about their careers.

The findings indicate that this activity is not happening at the school, especially from an engineering perspective. Being academics, educators would most probably be inclined to invite academics to speak at the school. In the process, the engineering trade perspective is being neglected and those learners who want to pursue this field are not provided with enough options.

5.6.16 Students approaching educators about career issues.

The findings of the educator focus group confirm the findings of the educator questionnaire on this issue. Beside the educator's limited knowledge of the engineering field, there are other factors that might be the reason for learners not approaching educators about career issues namely: the general absence of a culture of learning at the school, learners seeing no value in their schooling because it doesn't relate to any career, the tradition that one must pass matric in order to amount to anything. Whatever the reasons, the educators must endeavor to empower themselves so that they can be in a position to at least advise the learners.

5.6.17 Parents approaching educators about career issues.

What kind of career information could an educator give a parent about the engineering field when the educator's knowledge of this field is limited? Parents on the other hand do not seem to participate in their children's careers. As the principal indicated in his interview, "Many of them see the school as a place to tide their children over until they reach a working age". Teachers also play the role of surrogate parents to the learners and

should therefore network with the parents to determine the aspirations of their children and to provide guidance where they can.

5.6.18 Career issues as a discussion topic at the school.

The findings indicate that career issues are not discussed in the staff room nor is it a topic for discussion in the meeting agenda. Topics such as discipline, school fees, term marks, matric results etc., most probably have precedence over career awareness.

5.6.19 Learners who are not able to make it to matric.

The findings indicate that the school does not have a support system in place for these learners. It is also evident that the school seems to be at a loss about what to do about the situation, as no programs have been initiated. It is most likely that these learners will join the ranks of the unemployed or be drawn to gangsterism as a means of making easy money. In essence, the Education system has failed them. These learners have to live with the stigma that it is a social disgrace to leave school at a lower grade. This failure which was brought on by a school that is not geared for technical career awareness most likely leads to the learner developing a low self esteem and not believing in themselves.

5.6.20 The educator's general knowledge about career issues.

The findings indicate that career awareness is not a priority at this school and it is most likely that the educators do not see career awareness as part of their core business. It is therefore highly unlikely that they would keep themselves abreast of the latest career

issues. The school is a spoke in the career wheel of the learner, and the sooner the education stakeholders realize this, the sooner the system will come right.

5.6.21 The role of WCED.

As a result of the findings, which indicate that career awareness is not part of this school's curriculum, it is highly unlikely, that WCED is playing any meaningful role at this school in the way of career awareness. According to Patton, (1999), Australia is conspicuous for its lack of focus on career activity as a major national priority. In countries like France, Germany, New Zealand, Canada, the United States and Britain, a survey done by McCowan and Hyndman (1998), revealed that career activity is being seen as a high national priority.

5.6.22 The educator's general opinion about career awareness.

The findings indicate that the grade 9 educators are quite concerned about the state of career awareness at the school. They made some interesting suggestions as to how the problem could be approached. They are in dire need of guidance and assistance to address the issue of career awareness at the school.

5.7 ANALYSIS OF THE FINDINGS FROM THE PRINCIPAL'S INTERVIEW

[Refer to appendix D]

5.7.1 Career awareness programs offered at the school

The findings from the principal's interview have highlighted numerous issues and shortcomings with regard to career awareness. Many other countries like America, Canada, Australia, have already addressed the issue. Research conducted in these countries has shown that career awareness as part of the school program works. Saying that because of financial constraints, there is no career awareness programs running at the school, the principal is probably correct, but the school has the capacity to raise its own funds. The school should be seen as being a part of a career development process. Once this fact has been inculcated into all the stakeholders, the necessary programs should be established. It is important for the learner to know that the subjects he or she has chosen is in line with a career path. This can only happen if all the stakeholders – the learner, parent, and the educator – are made aware of the many different careers. For this to happen, career awareness programs must form an integral part of the school curriculum. According to Betty Jo Wimmer, in most North Carolina schools, much attention is given to the preparation for writing the career development plan (N.C., 2001). She says that middle grade students can take exploratory courses, participate in job shadowing, listen to career speakers, participate in career fairs, use internet technology to locate e-resources on career information, and become members in their own Career and Technical Student Organization – Career Clubs of North Carolina (CECNC). In the absence of career awareness programs at the school in this study, many problems become manifested, for

example: there is a huge problem with discipline and disrespect, absenteeism is rife, there is an absence of a culture of learning, the teacher morale is low, learners see no value in their schooling.

5.7.2 Attending career exhibitions

Attending career exhibitions will expose the principal to many different career opportunities and in so doing empower him to be able to assist the learners when it comes to career awareness issues. The principal once again highlighted reasons why attending career exhibitions was not happening at the school namely: the legacy of apartheid / no guidance counselor / lack of funds etc. We can continue to highlight the reasons why things cannot be done, but it will not solve our problems. We cannot change the past, but we can have a say in what happens in the future. The principal did however indicate the importance of these exhibitions and should therefore take it a step further by positively engaging in making it part of the school program.

5.7.3 The school preparing learners for the engineering field.

The findings from the principal's interview and the educator questionnaire with regard to their knowledge about engineering careers and technical career issues clearly indicates that this school does not prepare learners for the engineering field. As indicated by the principal, the high dropout rate is inevitable. This situation most probably contributes to the high unemployment rate and gangsterism. According to Christopher (1998), increasing the employment outlook for students, school-to-work programs can decrease incentives for idleness and crime. He further adds that, by equipping students for their

future role in the workplace, these programs can bring benefits to the students and to society as a whole.

5.7.4 Artisans earning more than people in other professions

Although the principal was of the opinion that artisans could earn more money than people in other professions, he could not be sure because he did not indicate that he knew anyone specific who did. Being an academic, he would most probably be inclined to encourage the learners to pursue academic careers given the fact that the school does not cater for other career streams as indicated earlier. Although it is probably assumed by many that artisans do not earn more than people in other professions, these careers can nevertheless serve as a springboard for those learners who do not make it academically.

5.7.5 Career awareness initiatives being implemented at the school

5.7.5.1) Career awareness as a priority at all schools.

The findings indicated that the principal was in agreement that career awareness should be a priority at all schools. According to Betty Jo Wimmer in a career awareness guide (N.C., 2001), career development is one-third of the school counseling programs in North Carolina. Career awareness is the common factor underlining the futures of all the learners, placing them in the starting blocks of the journey they have to follow through life.

5.7.5.2) Teachers as career guidance counselors.

Career guidance for the learner should involve all stakeholders. The learner spends most of the school day inter-acting with various teachers who should endeavour to show the learner how the subject being taught links up with various careers. This is probably not happening at the school because, as the principal indicated, the teachers are overloaded and probably will not be able to cope. It is highly unlikely that the teachers would do justice in guiding the learners with engineering trade careers, given their lack of knowledge about the field. An Internet search has revealed numerous ways in which the teacher can incorporate career awareness tasks into the classroom. According to Betty Jo Wimmer in the career awareness guide (N.C., 2001), middle school counselors, career development coordinators, and teachers can incorporate career development into the classroom curricula that students receive every day.

5.7.5.3) Teachers job shadowing

The principal is probably correct when he says that teachers might leave the profession if they knew what other people did for a living. Although this intervention is probably a good idea, numerous constraints at the school such as - work overload, lack of funds, low teacher morale – prevent it from happening. The principal's perception that teachers do not see the teaching profession as a viable career option anymore is probably true when one looks back at how many good teachers took the package that was made available by WCED a few years back. Nevertheless, teachers job shadowing would empower them to deal with career awareness issues and to give informed advice to the learners. According

to White (1998), educators should get out of the classroom and into the workplace, so that they may have a better understanding of other professions.

5.7.5.4) Career awareness as part of the curriculum.

Career awareness is not part of the school curriculum. Although the findings indicate that the principal is in total agreement that career awareness should be a part of the school curriculum, it would most likely be difficult, but not impossible for him to implement it at this stage, given all the constraints that have been highlighted. Career awareness must be stakeholder driven, but at this moment, the findings indicate that the various stakeholders – parents and teachers – do not have the necessary knowledge and skills to make a meaningful contribution. Nevertheless, career awareness is probably the single most important thing that gives meaning and value to the school curriculum. According to Peterson (2002), the integration of career awareness into the curriculum must be of a high quality and potency, because it is the primary source of information that a student needs in order to make a career choice. Furthermore, career guidance should be forward – looking and innovative.

5.7.5.5) Learners wanting to pursue an engineering career being channeled to a technical college.

The principal's disagreement with this initiative is well founded. The school would most probably experience a drop in student numbers, but given the high drop-out rate as indicated by the principal earlier, maybe it would be a good idea to perhaps implement

the exercise on an experimental basis. The school has a duty towards the learner, not only to educate him or her, but also to ensure that the learner is job ready.

5.7.5.6) Academic schools making provision for learners who want to pursue an engineering trade career.

This initiative is probably the answer to the problem academic schools have with learners who are not academically inclined. The principal was very positive about this initiative, but given the constraints as highlighted by the findings, would probably not be able to implement any programs. This type of initiative would require state intervention, but given the way governments generally operate, it would most probably take some time before anything is done. Currently, the only initiative that possibly may prepare the learners for the engineering and technical field is the introduction of technology as a subject. Whether this will help is questionable, because the teachers would probably not know how to link it up with engineering trade careers due to their limited knowledge of the field.

5.7.6 Who should be responsible for the provision of career awareness?

The principal was probably correct in saying that WCED should be responsible for the provision of career awareness at schools. However, it is the responsibility of all stakeholders who have an impact on the learner's future. According to Pariser (2000), "Relational Education" involves all stakeholders, that is, parents, teachers, business, the learner and the community. The role of WCED as a stakeholder should be in the way of policy and financial provision. Providing for career awareness would most probably be

beyond the budgetary constraints of a previously disadvantaged school. In some countries like America and Canada, the state plays a major role in the provision of career awareness. The Arizona School-To-Work program is funded by the state – STW Opportunities Act of 1994 (Larson & Vandegrift, 1998).

5.7.7 The frequency of career awareness occurring at the school.

5.7.7.1) People talking about their careers

The principal indicated that in the absence of a hall, it was difficult to accommodate people who wanted to speak about their career to the learners. This could easily be overcome by utilizing the classrooms on a rotational basis. Nevertheless, this type of activity should be encouraged on an on going basis. It is important for the learners to hear people talking about their careers, because it will help them to make informed choices about their careers.

5.7.7.2) Learners approaching the principal about career issues.

All the teaching staff, including the principal should endeavour to find out what careers the subjects that they teach link up with. In this way they would be empowering themselves to be in a position to give career advice to the learners. It is highly unlikely that the principal will be able to give any meaningful advice to the learners, given his limited knowledge of the engineering field. However, learners should feel free to approach the principal for career advice, knowing that they will receive help.

5.7.7.3) Parents approaching the principal about career advice for their children.

The principal indicated that parents did not approach him about career issues for their children. He also indicated that many parents see the school as a place to tide their children over until they are ready to work. It is highly unlikely that the parents of the learners had any meaningful career guidance when they were at school given the fact that many of them come from a disadvantaged community. It is therefore most likely that they do not know that they are able to approach the principal for assistance with career issues. Given the poor response to the questionnaires from parents (42 out of 171), it is also most likely that the parents do not have the time to engage with the school on career issues. Nevertheless, what ever the reasons are, it is incumbent of the principal to endeavour to engage with the parents on career issues concerning their children. After all, they are the clients of the school.

5.7.7.4) Getting together with his staff to discuss career issues.

It is highly unlikely that the knowledge base would be broadened by getting together with the staff, because the findings indicate that both the principal and the educators have a limited knowledge of the engineering field. The principal and the educators form the knowledge base of the school, and central to this base should be career awareness. It is highly unlikely that any discussion would revolve around career issues given the fact that the focus of the school is on getting as many learners through matric rather than into the workplace.

5.7.8 The principal's knowledge of the engineering field.

The principal, being an academic at an academic school, would most probably not be expected to focus much of his attention to engineering careers. As indicated earlier, the school's main focus is getting as many learners through matric rather than into the workplace. It seems apparent that very little attention is given to those learners who fall by the way side. This is most probably one of the contributing factors to the high dropout rate as indicated by the principal earlier. Being an academic school, it cannot be expected of the principal to have much knowledge of the engineering field, unless the focus of the school changes to accommodate the engineering field.

5.7.9 The principal's general awareness of engineering career issues.

As indicated by the principal, the short-term goal of the school is getting learners through to matric. The principal also indicated that the school is judged according to its matric results. This seems to be the core business of the school, and is probably why not much attention is given to engineering careers and the link between the school and the world of work. This is most probably why the principal's general awareness of engineering career issues is limited. The principal is also guided by the curriculum as laid down by the WCED which is very specific in terms of academic matters.

5.7.10 The principal's general opinion about career awareness.

The principal's comment about the disadvantaged communities being hood-winked in the past into thinking that their career options were limited is well founded. It was the policy at the time that certain jobs were reserved for an exclusive minority. According to

Christopher (1998), statistics show that the educational spending per capita in 1992/3 for blacks was as low as R1264-00 and for whites as high as R4372-00. This inequality ultimately made it difficult for disadvantaged communities to compete for jobs.

The existence of the school is at the expense of many learners who are encouraged to stay on and completed matric inspite of the fact that they are not academically inclined. The principal cannot take full responsibility for this problem, because he is bound by WCED policy to churn out as many matriculants as possible. As indicated before, the school is judged by its matric results. The principal could most probably take the initiative, out of concern for those learners who are not academics, and channel them to technical colleges. However, this decision would have a negative effect on the student numbers, which could ultimately affect the viability of the school.

5.8 ANALYSIS OF THE FINDINGS FROM THE WCED OFFICIAL'S INTERVIEW.

5.8.1 Career awareness programs running at previously disadvantaged schools.

The findings indicate that a program called 'World of Work' has been introduced as part of the GET phase from grade 1 to 9. According to the findings of the principal's interview and the educator questionnaire, this program has not been heard of because none of the respondents mentioned anything about it. The GET phase is part of the NQF, which is a new concept in education training that has recently been introduced. There is still a lot of

ground work being done around implementation of the NQF and it is most likely that this form of training has not yet filtered down to some schools.

5.8.2 The role of WCED with regard to career awareness.

The findings indicate that currently, the role of the WCED with regard to career awareness at previously disadvantaged schools is not significant. The findings indicate that there are no significant career awareness programs at the school. The WCED does not have a specialized department that can deal specifically with career awareness and career guidance issues. Countries like America, Canada and New Zealand have taken up the challenge of career awareness and made it a priority at all schools. According to a career report (IOES, 2001), surveys have been done with regard to career awareness and the results have been positive. The key findings of a School Career Development survey conducted in Illinois in America where 1,400 teachers participated in the elementary and middle school career awareness and development grant revealed the following:

- ❖ Increased participation in career training.
- ❖ Educators involved in career training have improved the classroom – based career planning activities.
- ❖ Career education is ongoing and systematic, taking place in more than one grade.
- ❖ The Career Awareness and Development Grant improved the school’s career program and career awareness activities.

5.8.3 Policy documents that deal with career awareness.

The findings indicate that there are no specific policy documents available on career awareness. For career awareness to emerge as an entity in the schools, policy needs to be written for it. In the United States the ‘School-to-Work Opportunities Act’ was designed to improve student learning, in-school retention, and the transition to the workplace by improving the quality and relevance of education for all students through experiences that integrate school-based and work-based learning and improve students’ knowledge of and access to career opportunities (Brown, 1998).

5.8.4 The responsibility of ensuring that learners are made aware of career opportunities.

The WCED official was of the opinion that this responsibility lies mainly with the educators. No provision has been made by the WCED to empower the educators at this school to deal with the issue of career awareness. Educators can therefore not be expected to carry this burden because they are already overloaded with their normal teaching duties.

5.8.5 When should career awareness begin.

The findings indicated that the WCED official was of the assumption that career awareness starts at grade 1 through to grade 12, but he could not confirm this. His statement that career awareness has always been at schools from grade 10 to grade 12 is most probably true, but the findings indicate that not much in the way of career awareness is happening at this particular school. His statement that career awareness has

been included in the school program with the advent of OBE is true, but the findings of the learner focus group and questionnaires indicate that the learners lack insight into career awareness. According to White, (1998), elementary school is the time to start showing kids what they can choose to do when they grow up.

5.8.6 Career awareness as an on going process.

The WCED official was of the opinion that career awareness should be an on going process. His comments about the previous dispensation having limited certain communities career options are well founded. For many at that time, and perhaps still today, their career awareness was not an ongoing process. According to Christopher, (1998), the system of the past bred failure and dissatisfaction and held little promise for the majority of South Africa's children. Ken Hartshorne estimated that nearly 150,000 children left the school system each year during the 1980's. According to Christopher, (1998), those students who managed to survive the chaotic education system face dismal employment prospects.

5.8.7 WCED's involvement with career exhibitions.

The findings indicate that WCED's involvement in career exhibitions is limited. This is most probably due to financial constraints, and as a result, it is highly likely that career exhibitions do not feature high on the WCED's agenda.

5.8.8 Academic schools preparing learners for the engineering field.

The findings indicate that the WCED official was not altogether sure whether academic schools prepared learners for the engineering field but he was aware of the problems that schools are facing with career awareness in general. In the Athlone District there is only one technical school namely, Spes Bona Senior Secondary, the rest are all academic schools. A major refocus in education needs to take place to address the plight of the technically inclined learners who find themselves at academic schools.

5.8.9 Artisans earning more than people in other professions.

The WCED official was of the opinion that artisans could earn more than people in other professions, but he could not say for sure that this was the case. Traditionally, artisan trades are deemed to hold less status than the teaching, medical and legal professions. Should the WCED place more emphasis on the engineering trades, it would most likely encourage learners to opt for these careers.

5.8.10 Career awareness as a priority at all schools

The WCED official indicated that because career awareness is written into the new curriculum, it could be seen as a priority in National Education. The findings indicate that very little in the way of career awareness is happening at this school. If career awareness is part of the curriculum as indicated by the official, it most probably has not filtered through as yet or the educators are not empowered to deal with its implementation. According to White (1998), the goal for Tennessee's elementary schools in America, was to have career awareness integrated into the curricula of 100 percent of the schools.

5.8.11 Educators as career guidance counselors.

The WCED official is probably correct in saying that the educators should also be career guidance counselors because they are the people who have direct access to the learners. However, the findings thus far indicate that there are too many constraints for this to happen. WCED intervention is required to make guidance teachers available to offer career awareness programs. It is most likely that educators would then be willing to play their part as assistant guidance counselors.

5.8.12 Educators and learners job shadowing.

The WCED official was in favour of this idea, but the findings indicate that there is no support for these initiatives forthcoming from the WCED. The findings indicate that it is not feasible for this activity to take place mainly due to financial and logistical constraints. Job shadowing expands the walls of the classroom (Vermont, 1998)

5.8.13 Learners being channeled to a technical college.

The WCED official indicated that OBE was introduced to allow learners to pursue a specific route instead of continuing at school up to matric only having particular subjects. He did not however indicate how an academic school would address this issue. The official also indicated that the Minister those years mentioned that learners should become more technical. Once again no mention was made of how this would be achieved. Channeling learners to technical colleges would only solve part of the problem. It is most likely that academic schools would have to redefine their roles in order to accommodate technical students.

5.8.14 Academic schools providing for learners who want to pursue an engineering career.

According to the WCED official, this cannot be done practically due to financial constraints. The only way out for learners at this stage is to leave the school and enroll at a technical college. This is not always possible due to the fact that studying at these colleges can be quite costly. It is therefore most likely that these learners will remain disadvantaged until a solution can be found. According to Christopher (1998), in South Africa and other countries throughout the world, vocational and technical education have been seen as an answer to make schools more effective in enhancing the employment opportunities of their learners.

5.8.15 The frequency of career awareness issues being discussed at WCED.

The findings indicate that the topic of career awareness is not high on the agenda at WCED and that there is no specific policy written for it. It would therefore most probably be difficult to influence the thinking of WCED officials to prioritize career awareness, especially from engineering perspective. It is highly likely that the education officials at the department are mainly academics and would therefore be inclined to promote academic issues.

5.8.16 A general awareness of career issues.

The findings indicate that the WCED official is not fully informed about general career issues. It is highly likely that his time is consumed by other educational issues, allowing little time to focus on career issues. Findings from other countries indicate that career

awareness is a specialist field requiring policy, finance, the input of all stakeholders and career specialist to manage it.

5.8.17 GET (General Education and Training) linking up with FET (Further Education and Training)

Although the WCED official was aware of the link between the GET phase and the FET phase, he did not know what a learnership was. It is most likely that because learnership programs are generally offered at FET institutions, they do not fall within his domain at this stage. It is important to know about learnerships because they form the backbone of various careers and life-long learning.

5.8.18 How career awareness information is filtered to all stakeholders.

Although the WCED official described in detail how career awareness information is filtered to the stakeholders, the findings obtained from the school in this study indicate that this is not happening. Parents, educators and learners are not very knowledgeable about career awareness issues. It is not a priority at the school.

5.9 CONCLUSION: COMPARISON OF THE ANALYSIS OF THE FINDINGS (SYNTHESIS)

The research questions used for the various questionnaires, interviews and focus sessions were very similar. The purpose of these questions was to determine the knowledge, understanding, perception and attitudes of the various respondents. In most cases the analysis of the findings revealed similarities between the various respondents.

5.9.1) Educators and learners

The educators lack the necessary knowledge of technical and engineering trade careers because they come from an academic background. The school is academic by nature, therefore the emphasis would naturally be on academic issues. There are no structures in place at the school to address the issue of career awareness. Learners who want to pursue an engineering trade career find themselves in a catch 22 situation. Their parents probably cannot afford to send them to a technical college, yet they need to be educated and they therefore find themselves trapped at an academic school. Teachers very seldom talk about career issues among themselves or in meetings. No job shadowing takes place both for educator and learners, so that they could become more knowledgeable about the jobs other people do. Speakers are seldom invited to talk about their careers and teachers as well as grade 9 learners seldom or never attend career exhibitions. The findings indicate that there is very little interaction between educators and learners with regard to engineering career awareness. Both educators and learners are strongly in favour of career awareness initiatives being implemented at the school. For the educators to be of assistance to the learners and the learners being able to make informed choices about engineering trade careers, the focus of the school needs to be somewhat redirected towards the engineering field.

5.9.2) Educators and parents

The findings indicate that educators and parents seldom or never interact with regard to career awareness issues. Educators are not empowered enough and do not possess the necessary skill to advise the parents. Parents somehow do not have the time to talk to the

educators about their children's careers. Parents in general are not equipped to deal with career awareness issues for their children. As the principal indicated, many of the parents see the school as a place to tide their children over until they reach a working age.

5.9.3) Parents and learners

The findings indicate that for the parents, career awareness is an important issue because they often spoke to their children about it. They want their children to have a successful career but are somewhat powerless to guide their children in the right direction. There are no structures in place at the school that they can depend on for assistance. The negative perception that parents have of engineering trades also hinders them from encouraging their children to pursue engineering careers. Parents and learners are more inclined to consider traditional careers such as doctor, lawyer, teacher and IT. Parents often set unrealistic goals for their children and the learner is under pressure to achieve. There is also the tradition of matriculation and the social disgrace the learners have to live with if they do not make the grade. The findings indicate that both parents and learners are strongly in favour of career awareness initiatives being implemented at the school.

5.9.4) WCED and the school.

The WCED are the custodians of education and as such, they should see to it that the schooling phase serves its purpose. The findings indicate that very little in the way of career awareness is happening at this school particularly with regard to engineering careers. There is a high failure rate as indicated by the principal. Educators indicate that learners who do not make it to matric fall by the wayside. If these things are indeed

happening, then education is not serving its purpose. It is most likely that learners see no value in their schooling and no reward in the form of a job. This is an academic school that cannot provide for learners who want to pursue an engineering and technical career path. The WCED are the ones who could change the situation by writing policy around the issue of career awareness. Career awareness must be seen as a priority by all role players, because it forms the backbone of an individual's future. The schooling phase should be seen as part of a career development process instead of *visa versa*.

The understanding of career awareness issues among the respondents is also questionable. They don't seem to understand that career awareness is central to everything that happens at the school. The school does not have a career awareness program in place from grade 8, so the learners have no idea how the subjects that they have to do link up with the world of work. While they are in grade 8 they don't get any exposure to the world of work because career awareness is only available for grade 11 and 12 learners. The analysis of the educator and parent questionnaires indicates that they are not empowered to give advice to the learner about career choices in the engineering field.

CHAPTER 6

CONCLUSION

6.1 General conclusions

South Africa as a developing nation is highly dependent on skilled labour in order for its economy to grow. According to Gerber, et al (1998) the country's human resources hold the key to many of its problems. It is the country's human resources that will eventually make the difference rather than material resources. Education and training is the key to solving this problem. At the centre of education and training should be career awareness and career guidance. Peterson (2002), comments that effective career guidance is important not only to all stakeholders, but also for the economic prosperity of the country as a whole. The school as a stakeholder in the career of the learner should provide career awareness opportunities for the learner. The research findings indicate that this school is not fulfilling its function with regard to the provision of career awareness for the learners and that some serious interventions need to take place in order to correct the situation.

Internationally, many countries have recognised the importance of career awareness in schools. An Internet scan has revealed numerous examples of career awareness initiatives taking place in other countries. The following are only a few examples:

- ❖ School-to-Work is an approach in America's schools that links students, schools, and workplaces.
- ❖ JobReady is North Carolina's school-to-work system.
- ❖ Leaving the Nest is a career awareness guide for parents of teens by Marilyn Noble and Jane McGinn.
- ❖ Career Awareness Program (Project Cap) is designed to complement the basic skills curriculum of the school while introducing students to a wide variety of ways in which people work.
- ❖ Relational Education. This type of educational approach involves all stakeholders, that is, parents, teachers, business, the learner and the community. Students who have chosen to leave

conventional education for a wide variety of reasons embark on a different learning experience, which makes sense to them and will help them achieve their goals.

According to Patton (1999), a review conducted by McCowan and Hyndman of 6 countries (France, Germany, New Zealand, Canada, the United States and Great Britain) in 1998 revealed career activity being seen as a high national priority.

6.2 Recommendations

6.2.1 WCED

The schooling phase must be seen as being a part of a career development process. Everything at the school should revolve around career awareness. This would then give meaning to the schooling phase. At the moment, many learners see no value in their schooling because they cannot link it to any careers. It should therefore be the mission of the WCED to ensure that there is a link between school and the world of work by promulgating policy around the issue of career awareness. Career guidance counsellors must be re-introduced into the schools as soon as possible. Career awareness must be a part of the curriculum and start at an early stage. It should commence at the primary school phase and continue throughout the high school phase. The WCED must create capacity at the academic schools to allow them to provide for learners who want to pursue an engineering career path. Once learners and parents are made aware that the learner can continue his or her education at a technical college, the technical colleges might not be able to cope with the influx of students. This inevitable shift to the technical colleges would then threaten the existence of the academic schools because of a drop in student numbers. In the future stronger relationships between schools and technical Colleges might have to be developed.

6.2.2 Principals

The Principal as head of the school should adopt career awareness into the vision and mission of the school. The success of the school and that of the learners is primarily his responsibility. Although

the school is academic by nature, the principal is obligated to provide for those learners who want to pursue an engineering and technical career. If not, then these students should not have been enrolled at the school in the first place. There are many possible spin offs for the school by integrating career awareness into the school programs. According to the career awareness guide (N.C.,1999), studies have shown that individuals who receive early career training and counselling services:

- ❖ Improve school involvement and performance.
- ❖ Increase personal and interpersonal skills.
- ❖ Improve preparation for careers.
- ❖ Increase career awareness exploration and planning skills

The principal has the necessary stature to influence business and the community to participate in career awareness campaigns. Businesses have a social responsibility to give back to the community. There are many ways in which the school and business can work together in a partnership. Teachers and learners can go on job shadowing sessions at various companies. Businesses can be persuaded to contribute towards career awareness programs at the school. The principal must ensure that the school prepares learners for the world of work by creating capacity amongst the educators. The school does not need to wait for career exhibitions to materialise. The principal together with his staff and the community can arrange career days for the school. The school should also keep track of the learners in order to measure its success rate in terms of kick-starting the careers of the learners.

6.2.3 Teachers

Teachers firstly have to empower themselves to deal with the issue of career awareness. Here the WCED can implement training programs that educators can attend in order to obtain the necessary skills. According to a career survey (IOES, 2001), educators involved in career training have improved the classroom-based career planning activities. These activities included career-related projects involving the community such as guest speakers, career fairs, business tours, and job

shadowing. According to White, (1998), educators should get out of the classroom and into the workplace. Job shadowing for educators will not only increase their knowledge about the jobs other people do, but will also increase the walls of the classroom. According to Brown, (1998), some of the teacher practices that have had a significant effect on students and the classrooms in America are described by Cicmanec and Boston (1997):

- ❖ Teachers structure classroom activities to integrate academic skills with skills required for successful employment.
- ❖ Teachers and counsellors provide information about careers and school-to-work opportunities parents and students and help them make decisions based on their knowledge of the curriculum and students ' interest and aptitude.
- ❖ Teachers form partnerships with business people, technical workers, and others from the public and private sectors to provide resources and enhance classroom experiences.
- ❖ Teachers broaden and deepen their knowledge of various vocations, collaborating with employers to provide contextual learning activities and to set achievable goals for their students.
- ❖ Teachers use new ways to assess students' knowledge and skills and to help prepare students to meet state and industry standards.

6.2.4 Parents

“ When we speak to our children about our own lives, we tend to reshape our pasts to give them an illusionary look of purpose. But our children are unlikely to be able to define their goals and then live happily ever after. Instead, they will need to reinvent themselves again and again in response to a changing environment..”. (Mary Catherine Bateson, *Composing a Life*) in Noble and McGinn, (n/d).

The parent is the child's first best teacher. It is also the parent who chose to bring the child into this world. It is therefore the mission of the parent to ensure that the child is given every opportunity to become what they aspire to and to achieve their goals in life. According to Noble and McGinn, (n/d), what parents do can smooth the way for the child. Parents need to empower themselves about

career awareness issues so that they can assist and guide their children with their career choices.

There are many useful guides available to parents. The Internet abounds with information on this topic. Parents wanting their children to pursue careers in the engineering field should do research on the various trades available. They should endeavour to visit various engineering companies and speak to the Fitters, Turners and Welders etc, in order to gain first hand information. They should visit technical colleges to find out where the child should begin studying and what subjects to take. Colleges are in a position to assist the parent sketch a possible career path for the learner.

According to a career awareness guide (N.C.,1996), there are many ways parents can become involved with their children's careers:

At home – the parent can create ways to reinforce and extend the child's schooling by providing experiences at home that relate school to everyday living. They could tell them about careers, jobs and different tasks performed daily. They could tell them about the jobs they do and the skills needed to perform their jobs well. Parents can help their children plan ahead by asking them what skills they are developing in school and other activities. They can talk to their children about careers that interest them and encourage them to find and take advantage of opportunities to explore those interests. They can participate in the child's career development plan by helping them choose a career path. Parents must make sure that they know their child's course of study for the year and check on their progress in school to help them overcome obstacles.

At school – the parent can become an active part of the school community. They can volunteer to make a presentation of their occupation on career day. They can help the school recruit employers and other parents in the community to get involved and also serve on school committees.

At work – parents can speak to their colleagues and personal department to create opportunities for young people to gain experience in the organisation. They can organise 'Job Shadowing Day'

where young people can learn how the organisation works. They can find out what the employer is doing to support the local school system and encourage them to increase participation.

In the community – the parent can become a mentor and a role model because many people need extra guidance. The parent can encourage other friends and neighbours to become involved as volunteers at the school.

6.2.5 Learners

Teachers must encourage learners to do career research. Learners must be assisted to determine what kind of personalities they have, what their career interests are and which career path best suits their personalities, abilities and interests. One of the many ways learners can determine what career is suited for them is to job shadow. According to the Vermont job shadow report (1998), job shadowing helps students develop realistic outlooks on careers and the educational preparation, competencies, and experience it takes to enter the workforce. A visit to workplaces exposes learners to careers they do not know exists and shows them workplaces they otherwise might not have an opportunity to know about or experience. A shadowing experience assists learners in connecting what they are learning in the classroom to the skills needed to succeed in careers. It can help learners to define and explore their own career interests and discover career paths, including higher education that will enable them to achieve their career goals. Learners must be encouraged to keep a career portfolio. The portfolio will help them document the various careers they are researching so that they may later make comparison in order to narrow down their career choices. Career research should take place throughout the learner's schooling phase and continue until the learner has found the career that best suits him or her. Career research assignments can be divided up amongst the learners so that a wider range of careers can be covered. Learners as groups or individually can then make a presentation to the rest of the class and in so doing, share the newly acquired knowledge. Other activities can include guest speakers and visits to places of interest.

CHAPTER 7

REFERENCES

BABBIE, E. & MOUTON, J. 2001: The practice of social research. ISBN 0 19 571854 2
Cape Town: Oxford University Press

BELL, J. BUSH, T. FOX, GOODEY, J. & GOULDING, S. (1987): Conducting small-scale investigations in educational management. Harper & Row, Publishers London, ISBN 0-06-318293-9

BLESS, C. & HIGSON – SMITH, C. 1997: Fundamentals of social research methods. An African Perspective, ISBN 0 7021 3432 5 Juta and Company, Creda Press

BROWN, 1998: ERIC Digest #190 - What's Happening in School-to-Work Programs?
ERIC Digest #190 What's Happening in School-to-Work Programs? Bettina Lankard Brown
Brown The School-to-Work Opportunities Act authorized the allocation of resources for initiatives that would help young people make the transition from school to work.
www.ericacve.org/docs/dig190.htm

Canadian Summary Report of a Consultation Workshop on : Critical Skills in Strategic Industry Sectors of the Canadian Economy. The Prairies – in Winnipeg May 27th and 28th, 1999. Secretariat of the Expert Panel on Skills. <http://acst-ccst.gc.ca/skills>.
[Accessed 06-05-2003]

CHRISTOPHER, C. 1998: Obstacles in the way.
Table of Contents EXECUTIVE SUMMARY, the Current Crisis, An OVERVIEW of Vocational Education Potential Programs School-Based Enterprise International Models Initiatives in the Western Cape Mentoring Programs Initiatives in the Western Cape Career
www.princeton.edu/~calvinc/jp.html

Cicmanic, K., and Boston, C. “ School-to-Work Transition in the K-12 Classroom.”
ERIC REVIEW 4, no. 2 (Spring 1996).
<<http://www.aspensys.com/eric/ter/stw/karen.html>>

COHEN, L. & MANION, L. (1987) (2nd Edition): Research methods in education.
London/New York: Croom Helm

GERBER, P.D. NEL, P.S. & VAN DYK, P.S. (1998): Human resources management 4TH Edition. ISBN 0 19 571864 x. Oxford University Press Southern Africa 1999

GILLHAM, B. 2000: Developing a questionnaire. ISBN 0 8264 4795 3 Printed and bound in Great Britain by T.J. International, Padstow, Cornwall.

GIBSON, I. 2003: Careers Unlimited for Matriculants and School-leavers 2003.
Published by: Margie Ogilvy Promotions CC.

GOULDING, S. 1987: Conducting small-scale investigations in educational management. ISBN 0-06-318293-9 Printed and bound by Butler & Tanner Ltd, Frome and London.

HERR, E.L. 1992: Emerging trends in career counselling. International Journal for the Advancement of Counselling, 15, 255-288

IOES (2001) [PDF] [Executive Summary Report](#)
File Format PDF/Adobe Acrobat - [View as HTML](#)
... Services Elementary and Middle School Career Development 2450 Foundation Drive, Suite 100 Springfield, IL 62703-5464 **Executive Summary Report This report ...**
www.ioes.org/pdf/res_info/carsurveysummary.pdf - [Similar pages](#) [Accessed 18-11-03]

KRUMBOLTZ, J.D. 1996: A learning theory of career counselling. In M.L. Savickas & W.B. Walsh (Eds.), Handbook of career counselling theory and practice (pp. 55-80). Palo Alto, CA: Davies-Black.

LARSON & VANDEGRIFT, 1998: [Seventh Grade Students' Perceptions of Career Awareness and Exploration Activities in Arizona Schools: Two-Year Trends](#)
[PDF/Adobe Acrobat]
Morrison Institute for Public Policy • College of Public Programs School of Public Affairs • Arizona State University • (480)965-4525 Seventh Grade Students' Perceptions of Career Awareness and
www.asu.edu/copp/morrison/public/seventh14.PDF [Accessed 29-05-2003]

MATZUKIS, N. 2002 Sunday Times Metro January 13 2002

McCOWAN, C. 1996: Career education state by state. Queensland. Australian Journal of Career Development, 5(1), 6.

McCOWAN, C. & HYNDMAN, K. 1998: A career advisory system for Australia?
Summary of a review. Australian journal of Career Development, 7(1), 35-41

NC (n/d)[PDF] [Production Specifications](#)
File Format PDF/Adobe Acrobat - [View as HTML](#)
... It also Page 6. **Pathways to Success A Career Planning Resource for Parents and Students 2** helps students refine their interests and aptitudes before ...
soll.esc.state.nc.us/soicc/products/parentkite.pdf - [Similar pages](#) [Accessed 17-11-03]
www.jobready.state.nc.us/newsletter/NCKIT.pdf

N.C. (2001)[PDF] [Middle Grades Career Awareness Guide](#)
File Format PDF/Adobe Acrobat - [View as HTML](#)

2001 Career Development Middle Grades Career Awareness Guide A Resource for Middle

School Counselors Career Development Coordinators and Teachers Developed by ...
icdl.uncg.edu/pdf/090501-01.pdf - [Similar pages](#) [Accessed 17-11-03]

N.C. (1999). Elementary Career Awareness Guide: A resource for elementary school counsellors and teachers. North Carolina Department of Public Instruction, North Carolina Job Ready, North Carolina State Occupational Information Co-ordinating Committee (1999).
<http://icdl.uncg.edu/pdf/060200>. [Accessed 27-05-2003]

Noble, M & McGinn, J (n/d) Leaving the nest: A career awareness guide for parents of teens. Available at <http://www.cartleton.ca/wise/nest.html> Accessed 9 November 2003.

OPPERMAN, A.N, 1966: Questionnaire design, interviewing and attitude measurement. Printer Publishers London and New York

OWENS, T. R, 1996: A Third-Year Assessment of Tech Prep in Washington State. Portland, OR:Northwest Regional Education Laboratory, 1996. (ED 403 402)

PATTON, W. 1999: Career guidance and counselling in changing times: Working with people who are unemployed. International Careers Journal, published on the web at <http://www.hexcentric.com/icj/05c>. [Accessed 28-01-2001].

PARISER, E. 2000: The Community School: Developing the Approach of "Relational Education" In Miller, R (Ed). (2000) *Creating learning communities: Models, Resources, and New Ways of Thinking About Teaching and Learning*. Wasilla, Alaska. Autodidactic Press.

PENINGTON, H. 1996: "Where Is Voc Ed Headed?" Techniques: Making Education and Career Connections 71, no. 8

PETERSON, B. 2002: Khanya. Education Through Technology. Western Cape Education Department and Picasso Headline. Johnnic Publishing Limited Business Magazine Division.

PEYSER, S. 1999: Elementary Career Awareness Guide: A resource for elementary school counselors and Teachers. <http://icdl.uncg.edu/pdf/060200>. [Accessed 27-05-2003]

POWNEY J. & WATTS M. 1987: Interviewing in educational research. Routledge & Kegan Paul Ltd.

SPARKMAN, L. 1995: Career Awareness Program, Project (Project CAP)

Educational Programs That Work - 1995 Career Awareness Program, Project (Project CAP) Career Awareness Program, Project (Project CAP).

www.ed.gov/pubs/EPTW/eptw15/eptw15b.html [Accessed 20-05-2003]

SWAN, S. 2002: Rhetoric, Service and Social Justice. Written Communication.19 (2002): 76 - 108.

VERMONT (1998)[PDF] [2C Job Shadow no#](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Schools Staff in schools report that students who participate in **job shadowing** are ex- cited and often are more motivated **learners**. ...

www.state.vt.us/stw/wblm/2C0jobshadow.pdf - [Similar pages](#) [ACCESSED 17-11-03]

WHITE, C. (1998): TN:Ed:Education Edge: 5. Expand children's career awareness. Elementary school is the time to start showing kids what they can choose to do when they grow up. ... www.state.tn.us/education/eexpchr.htm - [Cached](#) [Accessed 20-05-2003]

APPENDICES

- A Learner questionnaire.
- B Parent questionnaire
- C Educator questionnaire.
- D Principal interview schedule.
- E WCED official interview schedule.
- F Learner focus group schedule.
- G Educator focus group schedule.
- H Letter of application to WCED.
- I Letter of approval from WCED.
- J Parent covering letter requesting their participation.
- K Learner covering letter requesting their participation.
- L Educator covering letter requesting their participation.
- M Principal covering letter requesting his participation.
- N WCED official's covering letter requesting his participation.
- O Consent form for participants.
- P Letter of confirmation from supervisor to WCED
- Q Parent covering letter requesting permission for their children to participate in the study

APPENDIX A

LEARNER QUESTIONNAIRE

MALE	FEMALE
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- PURPOSE:**
- to determine your perception, understanding and knowledge of technical careers.
 - to design and initiate career awareness interventions that will assist young learners with their career choices

INSTRUCTIONS:

- Please answer all the questions.
- Please read the questions carefully.
- Please *do not* use a black pen – any other colour will do.
- Please hand in your completed questionnaire to your teacher.

1. Are there any technical career awareness programs running at your school?

YES	NO	NOT SURE
-----	----	----------

[If yes, please write down something about the program]

2. How frequent does career awareness interaction occur at your school.

Please circle the corresponding number

		OFTEN	SOMETIMES	SELDOM	NEVER
a	Have any people come to your school to talk about their careers?	1	2	3	4
b	Do you approach your teachers about career awareness ?	1	2	3	4
c	Do you attend career awareness exhibitions?	1	2	3	4
d	Do you work on projects in class that help you understand jobs?	1	2	3	4
e	Do you go on field trips to workplaces to see people doing different jobs?	1	2	3	4
f	Do you do job shadowing?	1	2	3	4
g	Do you use computers at school to learn about or see people doing different jobs?	1	2	3	4
h	Do you do career research to see what jobs you might be good at?	1	2	3	4
i	Do teachers from your school talk to you individually about your career or job interest?	1	2	3	4
j	Do your parents talk to you about careers?	1	2	3	4
k	Do you talk to your school friends about careers?	1	2	3	4

3. How well do you know the engineering field? Write down what the following people do?

Fitter: _____

Turner: _____

Welder: _____

Electrician: _____

Mechanic: _____

4. Do you think that Welders, Fitters, Electricians etc, can earn more money than Doctors and Lawyers?

YES	NO	NOT SURE
-----	----	----------

5. How aware are you?

Please tick a box

		yes	no	unsure
a	Have you heard of Northlink College?			
b	Do you know that you can go to a technical college after completing grade 9 at your present school?			
c	Did you know that you can do engineering subjects like Applied Maths / Trade Theory / Technical Drawings / Applied Science etc, for matric?			
d	Are you aware that you can get a technical matric?			
e	Do you know that you can go on to study at a University or Technikon when you choose a career in the Engineering field?			
f	Do you know that when you are qualified in the Engineering field you could eventually start your own business?			

6. Here are some career awareness initiatives that could be implemented at your school. Circle a number for each initiative to show whether you are in favour of it or against it.

Please circle the corresponding number

	STRONGLY IN FAVOUR OF	IN FAVOUR OF	NEITHER IN FAVOUR OR AGAINST	AGAINST	STRONGLY AGAINST	
a	Finding out about careers is important for all schools.	1	2	3	4	5
b	Teachers should be career guidance counselors	1	2	3	4	5
c	My teacher should learn more about jobs other people do.	1	2	3	4	5
d	I want to learn more about jobs other people do.	1	2	3	4	5
e	Career awareness should be an on going process.	1	2	3	4	5
f	I want to learn more about Technical Colleges.	1	2	3	4	5
g	It would be useful for me to visit workplaces.	1	2	3	4	5
h	Career awareness should start at an early age	1	2	3	4	5

7. Are you interested in a career in the Engineering field?

YES	NO	NOT SURE
-----	----	----------

[If yes, please make a tick next to your choice.]

TICK

1	FITTER	
2	TURNER	
3	FITTER AND TURNER	
4	WELDER	
5	ELECTRICIAN	
6	ELECTRONICS EQUIPMENT MECHANICIAN	
7	MOTOR MECHANIC	
8	DIESEL MECHANIC	
9	REFRIGERATION MECHANIC	
10	MILLWRIGHT	
11	BOILERMAKER	
12	DOMESTIC RADIO AND TV MECHANICIAN	
13	DIESEL FITTER	
14	TOOLMAKER	
15	MARINE FITTER	

[If no or unsure, tick the possible reasons why from the list provided.]

TICK

1	Do not know anything about the Engineering field.	
2	Do not know anybody with a career in the Engineering field.	
3	People in the Engineering field do not earn as much as doctors and lawyers	
4	Engineering trades are seen as being inferior to other professions	
5	Engineering trades are a dead – end street	
6	Engineering trades are seen as hard work	
8	My friends and family will not think much of me if I become a Fitter, Welder, Mechanic etc.	
9	Engineering trades are for individuals with a poor education.	
10	Other – write down a reason ----- ----- ----- -----	

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

R5 WILL BE DONATED TO THE SCHOOL FUND FOR EVERY COMPLETED INTERVIEW / QUESTIONNAIRE

APPENDIX B

PARENT QUESTIONNAIRE

- PURPOSE:**
- to determine your perception, knowledge and understanding of technical careers
 - to design and initiate career awareness interventions that will enable parents to assist their children with career choices in the engineering field.

-

INSTRUCTIONS:

- Please answer all the questions.
- Please read all questions carefully.
- Please do not hesitate to contact the researcher for assistance
[Victor Winn 083 708 3203]
- Please *do not* use a black pen – any other colour will do.
- Please hand in your completed questionnaire to Ms. Enid Kerchoff at the secretary's office.

1. How frequently do you involve yourself with career awareness issues ?

1	Often
2	Sometimes
3	Seldom
4	Never

Please circle the corresponding number

a	Do you speak to your child/ren about their careers?	1	2	3	4
b	Do you attend career awareness exhibitions?	1	2	3	4
c	Do you ask advice from teachers about careers for your child/ren?	1	2	3	4
d	Do you speak to other people about careers for your child/ren?	1	2	3	4

2. Does your child/ren have an idea of what he/she wants to be?

YES	NO	NOT SURE
-----	----	----------

[If yes, please provide a brief description]

[If no, what do you think the reason is]

3. Do you think that artisans such as Welders, Fitters, Electricians etc, have the potential of earning more money than Doctors and Lawyers?

YES	NO	NOT SURE
-----	----	----------

4. How well do you know the engineering field. Give a short description of the following trades:

Fitter: _____

Turner: _____

Welder: _____

Electrician: _____

Mechanic: _____

Toolmaker: _____

Millwright: _____

Refrigeration Mechanic: _____

5. What career path would you like your child/ren to follow? [Examples of career paths: Doctor, Lawyer, Teacher, Welder, Fitter, Electrician etc.]

6. Please state why you prefer the career path you have chosen in question 5 above.

7. How aware are you?

Please tick a box

a	Are you aware that your child/ren can enter a technical college after completing grade 9?	yes	no	uns
b	Are you aware that not all subjects in grade 9 support learners who want to pursue a technical career path?	yes	no	uns
a	Are you aware that your child/ren can do Engineering subjects towards a technical matric ie: Applied Maths / Applied Science / Trade Theory / Technical Drawings etc?	yes	no	uns
d	Are you aware that learners can obtain a technical matric with NTC 3 and business English and Afrikaans?	yes	no	uns
e	Are you aware that after grade nine, learners could progress via the technical field and eventually obtain a degree?	yes	no	uns
f	Have you heard of the NQF [National Qualifications Framework]?	yes	no	uns
g	Have you heard of Learnerships?	yes	no	
h	Have you heard of FET [Further Education And Training]	yes	no	un.

8. Here are some career awareness initiatives that could be implemented at the school that you child/ren attend. Circle a number for each initiative to show whether you are in favour of it or against it.

1	Strongly in favour of.
2	In favour of
3	Neither in favour of or against
4	Against
5	Strongly against

Please circle the corresponding number

a	Career awareness should be a priority at all schools	1	2	3	4	5
b	Teachers should be career guidance counselors	1	2	3	4	5
c	All teachers should job shadow to find out what other people do	1	2	3	4	5
d	Career awareness should be part of the school curriculum	1	2	3	4	5
e	Career awareness should be an on going process	1	2	3	4	5
f	Learners who want to pursue a technical career should be channeled to a technical college after completing grade nine	1	2	3	4	5
g	Parents must play an active role in their children's careers	1	2	3	4	5

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

R5 WILL BE DONATED TO THE SCHOOL FUND FOR EVERY COMPLETED QUESTIONNAIRE

APPENDIX C

EDUCATOR QUESTIONNAIRE

- PURPOSE:**
- to determine your perception and understanding of technical careers.
 - to determine the current status of career awareness at your school.
 - to design and initiate career awareness interventions at your school.

INSTRUCTIONS:

- Please answer all the questions.
- Please *do not* use a black pen – any other colour will do.
- Please hand in your completed questionnaire to Ms. Enid Kerchoff at the secretary's office.

1. Are there any technical career awareness programs currently running at your school?

YES	NO	NOT SURE
-----	----	----------

[If yes, please provide a brief description]

[If no/unsure, please explain why]

APPENDIX C

EDUCATOR QUESTIONNAIRE

- PURPOSE:**
- to determine your perception and understanding of technical careers.
 - to determine the current status of career awareness at your school.
 - to design and initiate career awareness interventions at your school.

INSTRUCTIONS:

- Please answer all the questions.
- Please *do not* use a black pen – any other colour will do.
- Please hand in your completed questionnaire to Ms. Enid Kerchoff at the secretary's office.

1. Are there any technical career awareness programs currently running at your school?

YES	NO	NOT SURE
-----	----	----------

[If yes, please provide a brief description]

[If no/unsure, please explain why]

2. Have you attended any career exhibitions in the past 3yrs?

YES	NO	NOT SURE
-----	----	----------

3. Does your school prepare learners for technical career streams? – eg. Fitter, Turner, Electrician, Mechanic, Welder etc.

YES	NO	NOT SURE
-----	----	----------

4. Do you think that artisans such as Welders, Fitters, Electricians etc, have the potential of earning more money than Doctors and Lawyers?

YES	NO	NOT SURE
-----	----	----------

5. What technical career awareness initiatives have you implemented at your school?

6. Here are some career awareness initiatives that could be implemented at your school. Circle a number for each initiative to show whether you are in favour of it or against it.

1	Strongly in favour of.
2	In favour of
3	Neither in favour of or against
4	Against
5	Strongly against

Please circle the corresponding number

a	Career awareness should be a priority at all schools	1	2	3	4	5
b	Teachers should be career guidance counselors	1	2	3	4	5
c	All teachers should job shadow to find out what other people do	1	2	3	4	5
d	Career awareness should be part of the school curriculum	1	2	3	4	5
e	Career awareness should be an on going process	1	2	3	4	5
f	Learners who want to pursue a technical career should be channeled to a technical college after completing grade nine	1	2	3	4	5

7. How frequent does career awareness interaction occur at your school.

1	Often
2	Sometimes
3	Seldom
4	Never

Please circle the corresponding number

a	Have any people come to your school to talk about their careers?	1	2	3	4
b	Do students approach you with regard to career awareness issues?	1	2	3	4
c	Do you freely give advice about career awareness?	1	2	3	4
d	Do parents approach you with regard to career awareness issues?	1	2	3	4
e	Do you discuss career issues with your colleagues?	1	2	3	4

8. How well do you know the engineering field? Give a short description of the following trades:

Fitter-----

Turner-----

Welder:-----

Electrician:-----

Mechanic-----

Refrigeration Mechanic:-----

Toolmaker:-----

Millwright:-----

Boilermaker:-----

Electronic Equipment Mechanician:-----

9. How aware are you?

Please tick a box

A	Are you aware that students can enter a technical college after completing grade 9?	yes	no	unsure
B	Are you aware that not all subjects in grade 9 support learners who want to pursue a technical career path?	yes	no	unsure
C	Are you aware that learners can do Engineering subjects for a technical matric ie: Applied Maths & Science / Trade Theory / Technical Drawings etc?	yes	no	unsure
D	Are you aware that learners can obtain a technical matric with NTC3 and business English and Afrikaans?	yes	no	unsure
E	Are you aware that after grade nine, learners could progress via the technical field and eventually obtain a degree?	yes	no	unsure
F	Have you heard about FET [Further Education And Training]?	yes	no	unsure
G	Have you heard about the NQF [National Qualifications Framework]?	yes	no	unsure
H	Have you heard about Learnerships?	yes	no	unsure

10. Now that you have had the opportunity to interact with career awareness, what is your opinion about the issue?

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

R5 WILL BE DONATED TO THE SCHOOL FUND FOR EVERY COMPLETED QUESTIONNAIRE

APPENDIX D

PRINCIPAL INTERVIEW SCHEDULE

- PURPOSE:**
- to determine your perception and understanding of technical careers.
 - to determine the current status of career awareness at your school.
 - to design and initiate career awareness interventions at your school.

1. Are there any technical career awareness programs currently running at your school?

2. Have you attended any career exhibitions in the past 3yrs?

If yes:

2.1 Did you find them interesting?

2.2 Was there any follow-up to the exhibition/s?

2.3 Are they beneficial?

2.4 Do you know of any learners who benefited from them?

If no:

2.5 Could you explain why you did not attend?

POSSIBLE REASONS

No	Description	Tick
A	Not aware of any exhibitions	
B	Not interested	
C	No time	
D	Not part of the curriculum	
E	Not important at this time	
F	Only applies to grade 12	
G	To costly	
H	Other – please specify	

3. Does your school prepare learners for engineering career streams? – eg. Fitter, Turner, Electrician, Mechanic, Welder etc.

If yes:

3.1 Could you briefly explain how this is achieved?

3.2 Are there many learners who show an interest?

3.3 Do you know of any specific learner/s that have successfully pursued an engineering career path?

If no:

3.4 What careers does the school prepare learners for?

3.5 What happens to those learners who want to pursue an engineering career path?

3.6 What happens to those learners who do not make it to matric?

4 Do you think that artisans such as Welders, Fitters, Electricians etc, have the potential of earning more money than Doctors and Lawyers?

If yes:

4.1 In which ways can they earn more?

If no:

4.2 Why is this so?

5 The following are possible career awareness initiatives that could be implemented at schools.

5.1 Do you feel that career awareness should be a priority at all schools?

5.2 Should teachers be career guidance counselors?

5.3 Should teachers job shadow in order to find out what other people do?

5.4 Should career guidance be a part of the curriculum?

5.5 Should career guidance be an on going process?

5.6 When do you think career awareness should begin?

5.7 Should learners who want to pursue an engineering career be channeled to a technical college after completing grade nine?

5.8 Should academic schools make provision for learners who want to pursue an engineering career?

5.9 Who do you feel should be responsible for the provision of career awareness?

6 How frequent does career awareness interaction occur at your school.

6.1 Have any people come to your school to talk about their careers?

6.2 How often do you invite speakers to you school?

6.3 Do students approach you with regard to career awareness issues?

6.4 Do you freely give advice about career awareness?

6.5 Do parents approach you with regard to career awareness issues?

6.6 How often do you get together with your staff to discuss career awareness issues?

7 How well do you know the engineering field. Give a short description of the following trades:

Fitter: _____

Turner: _____

Welder: _____

Electrician: _____

Mechanic: _____

RefrigerationMechanic: _____

8 How aware are you?

- 8.1 Are you aware that students can enter a technical college after completing grade 9?
- 8.2 Are you aware that not all subjects in grade 9 support learners who want to pursue a technical career path?
- 8.3 Are you aware that learners can obtain a technical matric with N3 and business English and Afrikaans?
- 8.4 Are you aware that after grade nine, learners could progress via the technical field and eventually obtain a degree?
- 8.5 Have you heard of Learnerships?
- 8.6 Have you heard of FET [Further Education and Training]?
- 8.7 Have you heard of the NQF [National Qualifications Framework]?
- 8.8 Are you aware that a learner can enter into a learnership after completing grade 9?

9 Now that you have had the opportunity to interact with career awareness, what is your opinion about the issue?

THANK YOU FOR PARTICIPATING IN THIS INTERVIEW

R5 WILL BE DONATED TO THE SCHOOL FUND FOR EVERY COMPLETED INTERVIEW / QUESTIONNAIRE

APPENDIX E

WCED INTERVIEW SCHEDULE

- PURPOSE:**
- to determine WCED administrators' perception and understanding of engineering careers.
 - to determine the current status of career awareness at previously disadvantaged schools.
 - To determine whether there are any career awareness initiatives implemented at previously disadvantaged academic schools in the Western Cape.

1. Are there any engineering career awareness initiatives currently running at disadvantaged schools in the Western Cape?

- Probes:
- if yes / elaborate
 - if no / why?

2. What role does WCED play with regard to career awareness at schools?

3. Whose responsibility is it to ensure that the learner is made aware of the multitude of career possibilities open to him/her?

4. When do you think career awareness should begin?

5. Should career awareness be an on going process?

6. Does WCED get involved with career exhibitions?

- Probes:
- do you know whether students benefit from it?

7. Do academic schools prepare learners for engineering career paths?

8. Is there a policy governing career awareness?
9. Can Fitters, Electricians etc, earn more than Doctors and lawyers?
10. Do you think career awareness should be a priority at all schools?
11. Should educators be career guidance counselors?
12. Should educators job shadow?
13. Should learners job shadow?
14. Should career awareness be a part of the school curriculum?
15. Should learners who want to pursue an Engineering career be channeled to Technical Colleges?
16. Should academic schools provide for learners who want to pursue an Engineering career?
17. How often are career awareness issues discussed at WCED?
18. Are you aware that learners can enter Technical Colleges after grade 9?
19. Are you aware that not all subjects in grade 9 support learners who want to pursue an Engineering career path?
20. Are you aware that learners can obtain a technical matric with N3 and business English and Afrikaans?
21. Are you aware that after grade nine, learners could progress via the technical field and eventually obtain a degree?
22. What do you know about the NQF?
23. What do you know about FET?
24. What do you know about Learnerships?

25. How does the GET band link up with the FET band?

Probes – what kind of information can be given to the learner?

- what provision does the school make for transition from GET to FET. [NQF level 1 to NQF level 2

THANK YOU FOR YOUR PARTICIPATION

APPENDIX F

LEARNER FOCUS GROUP SCHEDULE

PURPOSE: - to determine your perception, understanding and knowledge of technical careers.

1. Who here knows what they want to be when they finish school?
2. Why did you choose that career?
3. Where did you first hear about that career?
4. Do you speak to your parents about what you want to be?
Probe - what type of work does your parent/s do?
5. Do you speak to your teachers about what you want to be?
6. Do people come to your school to speak about the work that they do?
7. Would you like your teacher to talk more about jobs people do?
8. Do you think it is important for people to tell you about jobs?
Probe - why
9. Who do you think has the best job in the world?
Probe - why
10. Have you visited a workplace to see what people do?
11. Do you know what the following people do:
 - ❖ Fitter
 - ❖ Turner
 - ❖ Welder
 - ❖ Diesel mechanic

- ❖ Boiler-maker
- ❖ Electrician
- ❖ Electronics Equipment Mechanician
- ❖ Refrigeration Mechanic
- ❖ Marine Fitter
- ❖ Toolmaker

12. Would any of you be interested in these jobs?

- Probes - why
- inferior to other professions
 - is it hard work
 - dead end street
 - friends and family opinion

13. Do you think that artisans such as Welders, Fitters, Electricians etc, have the potential of earning more money than Doctors and Lawyers?

- Probes - How?
- Do you know anybody who earns more?

14. Who knows what a Technical College is?

- Probes - Name a few?
- Do you know anybody who attend/s/ed a Technical College?
 - When do you think you can attend?
 - What happens at a Technical College?

15. Are you aware that you can obtain a technical matric?

- Probe - Do you know what subjects you will do?

16. Are you aware that you can obtain a degree via the technical route?

THANK YOU FOR PARTICIPATING IN THIS FOCUS GROUP

***RS WILL BE DONATED TO THE SCHOOL FUND FOR EVERY COMPLETED
INTERVIEW / QUESTIONNAIRE***

APPENDIX G

EDUCATOR FOCUS GROUP SCHEDULE

- PURPOSE:**
- to determine your perception and understanding of technical careers.
 - to determine the current status of career awareness at your school.

1. Are there any technical career awareness programs currently running at your school?

Probes: - if yes / elaborate

- if no / why?

2. Whose responsibility is it to ensure that the learner is made aware of the multitude of career possibilities open to him/her?

3. When do you think career awareness should begin?

4. Should career awareness be an on going process?

5. Do you attend career exhibitions?

Probes: - do you find them interesting?

- do you know of a student who benefited from it?

6. Does this school prepare learners for engineering career paths?

7. What career awareness initiative have you implemented?

8. Would you encourage learners to pursue engineering career paths?

9. Can Fitters, Electricians etc, earn more than Doctors and lawyers?

10. Do you think career awareness should be a priority?

11. Should educators be career guidance counselors?

12. Should educators job shadow?

13. Should learners job shadow?

14. Should career awareness be a part of the school curriculum?
15. Should learners who want to pursue an Engineering career be channeled to Technical Colleges?
16. Do people come to the school to talk about their careers?
17. Do students approach you for career guidance?
18. Do parents approach you about career issues?
19. Is career issues discussed in the staff room?
20. Are career awareness issues brought up in various meetings?
21. What happens to those learners who do not reach matric?
22. Are you aware that learners can enter Technical Colleges after grade 9?
23. Are you aware that not all subjects in grade 9 support learners who want to pursue a technical career path?
24. Are you aware that learners can obtain a technical matric with N3 and business English and Afrikaans?
25. Are you aware that after grade nine, learners could progress via the technical field and eventually obtain a degree?
26. What do you know about the NQF?
27. What do you know about FET?
28. What do you know about Learnerships?
29. What role does WCED play with regard to career awareness at schools?

THANK YOU FOR PARTICIPATING IN THIS FOCUS GROUP SESSION

R5 WILL BE DONATED TO THE SCHOOL FUND

APPENDIX H

Mr. Victor G. Winn
32 Elwyn Road
Athlone
7764
08 August 2003

Dr. Ronald Cornelissen
Research Unit
Western Cape Education Department
Private Bag X 9114
Cape Town
8000

Dear Sir

I am a registered M.Tech Education student at Peninsula Technikon. The title of my research is "*CAREER AWARENESS FOR GRADE NINE LEARNERS WITH REGARD TO ENGINEERING CAREER CHOICES AT PREVIOUSLY DISADVANTAGED ACADEMIC SCHOOLS*". I here request permission to conduct my research at a WCED senior secondary school.

The research will entail the following:

- A thorough literature search on career awareness nationally and internationally.
- Collecting data via interviews and questionnaires

The following respondents will feature in the research:

- Educators of grade nine learners +/- 20.
- The principal of the school.
- Grade nine learners +/- 200.
- Parents of the grade nine learners.
- An official of the WCED.

It is my intention to conduct my research during August and September 2003 should permission be granted.

I hope that this application will be considered in a favourable manner.

Yours in education

VG Winn

APPENDIX I

LETTER OF APPROVAL FORM WCED

Navrae
Enquiries
IMibuzo
Telefoon
Telephone
IFoni
Faks
Fax
IFeksi
Verwysing
Reference
ISalathiso

Dr Ronald Cornelissen
(021) 467-2286
(021) 425-7445
200300827-0004



Wes-Kaap Onderwysdepartement
Western Cape Education Department
ISEbe leMfundo leNtshona Koloni

Mr Victor Winn
32 Elwyn Road
ATHLONE
7764

RESEARCH PROPOSAL: CAREER AWARENESS FOR GRADE NINE LEARNERS WITH REGARD TO ENGINEERING CAREER CHOICES AT PREVIOUSLY DISADVANTAGED ACADEMIC SCHOOLS.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **1st September 2003 to 31st October 2003.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December 2003).
7. Should you wish to extend the period of your survey at the school(s), please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal of the school where the intended research is to be conducted.
9. Your research will be limited to the following School: **Bridgetown Senior Secondary School.**
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:
The Director: Education Research
Western Cape Education Department
Private Bag 9114
CAPE TOWN
8000

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: **HEAD: EDUCATION**
DATE: 27 August 2003

APPENDIX J

PARENT COVERING LETTER

CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY DISADVANTAGED SCHOOLS

Dear Parent

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions that will assist the parent when it comes to career awareness issues.

With the above mentioned in mind, I wish to invite you to participate in this study by completing the short questionnaire provided and hand it in to Ms Enid Kerchhoff at the secretary's office. I wish to assure you that your input will be treated with the utmost confidentiality and that you will be given feedback of the results of this study.

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

R5 WILL BE DONATED TO THE SCHOOL FUND ON COMPLETION OF EACH QUESTIONNAIRE

APPENDIX K

LEARNER COVERING LETTER

CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY DISADVANTAGED SCHOOLS

Dear Learner

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions that will assist the learner when it comes to making career choices.

With the above mentioned in mind, I wish to invite you to participate in this study by completing the short questionnaire provided and hand it in to Ms Enid Kerchhoff at the secretary's office. I wish to assure you that your input will be treated with the utmost confidentiality and that you will be given feedback of the results of this study.

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

R5 WILL BE DONATED TO THE SCHOOL FUND ON COMPLETION OF EACH QUESTIONNAIRE

APPENDIX L

EDUCATOR COVERING LETTER

CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY DISADVANTAGED SCHOOLS

Dear Educator

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions that will assist the educator when it comes to career awareness issues.

With the above mentioned in mind, I wish to invite you to participate in this study by completing the short questionnaire provided and hand it in to Ms Enid Kerchhoff at the secretary's office. There will also be a focus group session involving some or all of the grade nine educators. I wish to assure you that your input will be treated with the utmost confidentiality and that you will be given feedback of the results of this study.

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

R5 WILL BE DONATED TO THE SCHOOL FUND ON COMPLETION OF EACH INTERVIEW / QUESTIONNAIRE.

APPENDIX M

PRINCIPAL COVERING LETTER

CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY DISADVANTAGED SCHOOLS

Dear Sir

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions that will assist principals when it comes to career awareness issues.

With the above mentioned in mind, I wish to invite you to participate in this study by allowing me to interview you. I wish to assure you that your input will be treated with the utmost confidentiality and that you will be given feedback of the results of this study.

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

R5 WILL BE DONATED TO THE SCHOOL FUND ON COMPLETION OF EACH INTERVIEW / QUESTIONNAIRE.

APPENDIX N

WCED COVERING LETTER

**CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY
DISADVANTAGED SCHOOLS**

Dear Sir or Madam:

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions at previously disadvantaged schools.

With the above mentioned in mind, I wish to invite you to participate in this study by allowing me to interview you. The interview should only take about 30 minutes. I wish to assure you that your input will be treated with the utmost confidentiality and that you will be given feedback of the results of this study.

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

APPENDIX O

CONSENT FORM FOR PARTICIPANTS

**CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY
DISADVANTAGED SCHOOLS**

You are hereby invited to participate in this study with regard to career awareness.

I _____ (full name and surname-please print)

hereby give consent for data collection from me by means of interviews and/or questionnaires to be used in this study. I have been informed that permission to conduct the research has been obtained from WCED.

I am aware that I may refuse to have the interview or part thereof tape/video recorded.

The purpose of this study has been explained in the covering letter. My participation is voluntary and I may refrain from answering any or all of the questions with which I feel uncomfortable. I have the right to withdraw from the study at anytime if I so wish. Information gathered from this study will be treated with the utmost confidentiality and pseudonyms will be used to protect the respondent's identity.

I am assured that the information will be used for research purposes only and that there is no risk on my part for participating in this study.

(Participant's signature) _____

(Place) _____ (Date) _____

APPENDIX P

LETTER OF CONFIRMATION FROM SUPERVISOR TO WCED

Dr Christine Winberg
Research Coordinator
Faculty of Science
Peninsula Technikon
P O Box 1906
BELLVILLE 7535

Dr Ronald Cornelissen
Head: Education
Western Cape Department of Education

25 August 2003

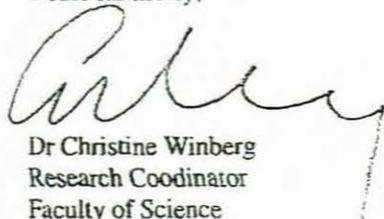
Dear Dr Cornelissen

Mr Victor Winn's Research Project

This is to certify that Mr Victor Winn is currently registered for the degree M Tech
(Education) at Peninsula Technikon.

I am his research supervisor.

Yours faithfully,



Dr Christine Winberg
Research Coordinator
Faculty of Science

APPENDIX Q

PARENT CONSENT FORM FOR CHILD TO PARTICIPATE IN THIS STUDY
CAREER AWARENESS FOR GRADE NINE LEARNERS AT PREVIOUSLY
DISADVANTAGED SCHOOLS

Dear Parent

I am currently conducting a research into career awareness for grade nine learners at a previously disadvantaged school. Although everyone needs to be made aware of careers, this study confines itself to careers within the engineering field only.

It is the intention of this study to determine your child's perception, knowledge and attitude towards career awareness. With this information it is hoped to initiate and implement career awareness interventions that will assist your child when it comes to making career choices.

With the above mentioned in mind, I hereby request your permission for your child to participate in this study by completing the short questionnaire provided. I wish to assure you that your child's input will be treated with the utmost confidentiality and that he/she will be given feedback of the results of this study.

PERMISSION GRANTED: **[YES]** **[NO]**

CHILD'S NAME:.....**[Please print]**

PARENT'S SIGNATURE:..... **DATE:**.....

Thank you for your co-operation and your time.

Yours in Education

.....

VICTOR WINN (M.Tech.Education Student – 8946086)

R5 WILL BE DONATED TO THE SCHOOL FUND ON COMPLETION OF
EACH QUESTIONNAIRE