

**EARLY SCHOOL LEAVERS COMPARED TO COMPLETERS IN FIVE MAJOR
DOMAINS OF PERSONALITY.**

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ABSTRACT

The aim of the research is to find out whether white male South Africans who leave high school before completion of their studies differ significantly in the personality domains of neuroticism, extraversion, openness, agreeableness and conscientiousness, from their counterparts who complete their high school studies.

An unmatched group comparative design was used. One hundred early school leavers and one hundred school completers were randomly selected by the author from those individuals who completed the NEO Personality Inventory (NEO-PI).

Early school leavers were identified as white male South Africans who had left high school during or after standard 8 but before completing standard 10.

A student t-test, stepwise discriminant function analysis, discriminant analysis and a multivariate analysis of variance was carried out on the data. The results show that there is a significant difference between early school leavers and completers on each of the domains.

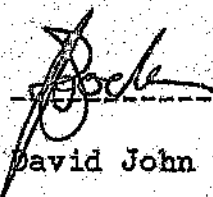
The results indicate that 87.5% of the subjects can be correctly classified as early school leavers or completers using the five domains. Using only the two domains identified by the stepwise discriminant function analysis a discriminant analysis indicates that 86% of the subjects can be correctly classified as early school

leavers or completers.

The author concludes that the information provided by the research findings can aid the counselling process in a number of ways, namely: determining the best approach to counselling, providing insight into the underlying clinical problems, developing appropriate treatment strategies and anticipating outcomes.

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Master of Arts in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.



David John Cockram

07 October 1992

Date -----

To my parents.

Without your support this would not have been possible.

Thank you.

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1 AIM AND INTRODUCTION

The aim of the research is to find out whether white male South Africans who leave high school before completion of their studies differ significantly in the personality domains of neuroticism, extraversion, openness, agreeableness and conscientiousness, from their counterparts who complete their high school studies.

Previous studies of early school leavers have focused on a multitude of factors. These include gender, socio-economic status, race, scholastic shortcomings and behavioural problems.

It is the author's intension to research the personality domains and their facets, within the framework of the five domains and eighteen facets of personality as proposed by Costa and McCrae (1988), of the high school early leaver and the high school completer.

The question of whether or not to leave high school before standard 10 is often a very important and stressful one for the individual concerned. This is an individual in crisis. Such individuals may seek help in the form of vocational counselling. As with many cases

of vocational counselling as well as other forms of counselling, the presenting problem is often accompanied by a number of underlying problems which may be more clinical in nature.

Individuals who leave school early are often subject to stressors such as unemployment, job insecurity, low work status and financial problems. These may act as precipitating stressors for mental disturbances.

Any additional information on aspects of the early school leaver's personality profile that this research provides will be beneficial to therapeutic interventions.

The economy of a country, with an extreme shortage of skilled labour, cannot afford to lose individuals who have been given the opportunity and who have the ability to learn. Not only is the early leaver a loss to the economy but if, as research has shown, he cannot obtain employment then he becomes a burden on the very economy to which he has failed to contribute.

One of the major problems with previous research has been the comparability of findings. The cause of this problem has been the non-uniformity of definitions and the lack of specificity regarding what exactly is being studied. For this reason the present study has defined early leavers very narrowly and the dimensions to be tested for are very specific. The subjects in this study represent

a unique group of early school leavers. They are individuals who have the intellectual capability to complete school and yet left before completion of their schooling.

In order to make the research even more specific only males are considered.

The entire education system of South Africa cannot be divorced from the history of apartheid and the continuing effects of discrimination in this aspect of the life of the people of South Africa. Education in South Africa has been divided along racial lines and the current priorities, opportunities and difficulties within the education system consequently differ with respect to the race of the child in the system. It is the white South African who has been offered the opportunity to obtain an education while the obstacles for other population groups have been considerable.

It is primarily for this reason that a study of this nature, conducted within the South African context, has to be conducted along racial lines. It must be mentioned however that most overseas research in the area of early school leavers is along racial lines. Research results would tend to indicate that this is an important variable to be considered.

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Whether or not there is such a thing as a 'dropout personality' has often been a contentious issue. Any significant differences found between the personality profile of the high school early leaver and the completer by no means apportion the responsibility for leaving school early solely at the door of the individual at the exclusion of the schooling system or broader society.

It is not the aim of the present study to put forward a pathological view of early school leavers but rather to contribute towards a better understanding of the individual who leaves high school before completion of his studies.

2. LITERATURE REVIEW

School and education play an important role in the development of a child. During adolescence school becomes important not only in the formal education but also in the broader educational growth and in shaping the child's personality.

Many educators think that a high rate of early school leaving is caused by a failure of an education system to meet the needs and aspirations of students. They also believe that leaving school early has adverse personal and social consequences (Peng, 1985).

Duhon and Mouton (1985), found that within two years of prematurely leaving high school fifty one percent (51%) of the leavers regretted the decision.

Before the early school leaving problem can be addressed it must be fully understood.

A review of South African literature on the topic of early school leavers shows that research has concentrated on a number of areas. Chinkanda (1986) and Xaba (1987) have researched the area with respect to disadvantaged communities.

Keating (1984) and Calvert (1982) have followed the international trend of researching the topic from a broad socio-economic and cultural perspective.

Other researchers such as Glover (1984) have examined the relationship between personality and achievement in specific school subjects. In his 1977 study De Beer tried to determine the role played by environmental and background factors in respect of school-leaving in academic provincial schools in the Witwatersrand-Vaal triangle. The following factors were found to be related to early school leaving: family background and socio-economic aspects, attitudes and aspirations, school and study aspects and the use of leisure time.

Overseas research on the subject has been carried out mainly in The United States of America. A literature review carried out by Poole and Low (1982) on the topic of early school leavers suggests various dimensions which differentiate early school leavers from completers these are: home background, ability, attitudes and aspects of personality.

Research has concentrated on describing socio-economic, academic and behavioural aspects relating to the early school leaver (Cairns et al., 1989; Markey, 1988; Poole & Low, 1982; Arnold, 1985; McCaul, 1988). Recent research suggests that students do not leave school early based on spur-of-the-moment decisions but because of

serious personality and environmental conflicts. These include unsatisfactory family relationships, perceived lower class status, peer influence, and alienation from school (O'Conner, 1985).

Early leavers show problems from a relatively early age. The failure that manifests itself when the person leaves school represents an accumulation of problems (Azumi & Gourgey, 1985).

According to Nelson (1985) early school leavers are usually academic underachievers who adjust to social environments with difficulty. When they leave school they develop even greater behavioural problems. He identified the following characteristics of early leavers: no sense of belonging, a tendency to avoid talking to someone about their problem, a feeling of having lost interest in school and believing that school personnel have lost interest in them and a belief that they possess too many problems to successfully complete their schooling. He found that adolescents who leave high school before completion of their studies show higher rates of behavioural problems, isolation from their families and unemployment compared to completers.

Cairns, Carsons and Neckerman's 1989 longitudinal study examined behavioural, cognitive and demographic factors associated with the early school leaver. Measures

obtained for aggressiveness were from school nominations for high aggressive behaviours as judged by teachers, principals and counsellors as well as teacher ratings from the Interpersonal Competence Test-Teacher Form (ICS-T). The cluster of males most vulnerable to early school leaving was characterized by high levels of aggressiveness and low academic performance. The authors found that taken independently aggressiveness, poor academic achievement and being older than peers contributed to the likelihood of leaving school. It was the combination of these factors however that had the strongest relation to leaving. This study also indicates that the association of aggressive behaviour to leaving school early must be understood in configuration with other adaptation problems.

Wilson (1980), found a relationship between a student's personality variables and his retention in high school. Students leaving school early were found to be significantly different on various scale scores. Individuals who leave school before completion of their studies tend to be more impulsive, immature, emotionally unstable and irresponsible when compared to completers. Early leavers described themselves as more rebellious and hostile and were seen as indifferent to the feelings and needs of others.

High school completers were seen as more obliging and tactful. In relationships they were more concerned about

the needs of others, more supportive and more able to yield to the reasonable requests of others.

McCaul (1988), investigated the characteristics, attitudes and school experiences of rural early leavers. Areas of enquiry included: gender, grades, test scores, self concept, locus of control, life values and students' ratings of school conditions. Results show differences in attitudes between early leavers and completers. Early leavers experienced lower self-esteem. This may have been partially a result of negative school experiences rather than personality traits. Both groups gave low ratings for effectiveness and fairness of discipline.

Schreiber (1979), in his review of studies on early leavers found that all the studies he investigated indicated that self concept was a distinguishing characteristic of the potential early leaver. His findings were that the potential early leaver seems to be a loner, tends to reject both school and self, is insecure in his school status, has not established adequate goals, is usually hostile towards other persons and frequently considers himself poorly treated.

Sewel, Palmo and Manni (1981), found that lower general IQ fails to adequately explain the high early leaving rate in view of the findings that as many as three quarters of those who leave school early have the ability to pass.

These researchers conclude that since intelligence does affect academic achievement it may be a characteristic but not a primary characteristic for potential early leavers. Primary characteristics appeared to be a poor self concept and inadequate life goals. They also report that as early as 1969 Hathaway cast further doubt on the role of intelligence as a central factor in early leaving.

Durken (1981), found that early leavers have a low level of self-concept and often lack a sense of identity. They are frequently involved in disciplinary and conduct problems.

Martin (1983), found thirty two indicators that directly related to early leavers and completers. Some of these were: early leavers participated in fewer extracurricular activities, were sent to the principal's office for misbehaviour, disliked school and did not get along with teachers more often than completers during their entire junior and senior school career.

Peng and Takai (1983), asked early leavers two years after quitting high school their reasons for leaving. Thirty three percent (33%) responded that school was not for them, twenty six percent (26%) felt that they

couldn't get along with teachers, eighteen percent (18%) were expelled or suspended and one percent (1%) couldn't get along with fellow students.

Dixon and Mouton (1985), found the following reasons for leaving school: fifty one percent (51%) of the students surveyed were bored at school, thirty four percent (34%) had discipline problems, fourteen percent (14%) felt isolated and forty seven percent (47%) were expelled or suspended.

Curtis (1983), found there to be a higher probability of involvement in serious disciplinary incidents amongst early leavers.

Azumi and Gourgy (1985), asked teachers to report the problems related to early school leavers. Teachers reported early school leavers to be immature, in need of strict supervision, talkative, disruptive, frequently involved in fights and were frequently suspended from school for disciplinary problems.

Statistics reinforce the argument that high school early leavers have more difficulty getting employment than do graduates (Nelson, 1985). Adolescents who leave high school early are less able to provide for themselves and are more likely to become burdens on society.

Leaving school before completion of high school is generally considered harmful by a society in which education is important to careers and economic success. Leaving school prematurely may cause loss of access to good jobs, reduce lifetime earnings, risk long and more frequent periods of unemployment, and decrease the quality of the individual's life.

The consequences to society include reduced economic output and possible increases in crime and other socially undesirable behaviour.

The adverse affects of leaving school prematurely may often pass from one generation to another. These individuals are less likely than completers to provide favourable economic and educational opportunities for their children.

Almost ninety percent (90%) of all able bodied people on welfare in The United States of America are the early school leavers of yesterday (Peng, 1985).

In the United States of America thirty six percent (36%) of early high school leavers are unemployed compared to twenty one percent (21%) of school completers.

Early leavers were also found to earn thirty three percent (33%) less than completers (Watt, 1988).

Unemployed early leavers were surveyed seven months after

intake into a counselling and employment centre. At follow-up, personality characteristics, employment and schooling status, and self-reported police contacts were measured. It was found that employment had no effect on psychological health or interpersonal competency (Cook, 1983).

The US justice department found that the majority of jail inmates lacked a high school diploma (Peng, 1985). Ninety five percent (95%) of all felons in juvenile court in the United States of America had not finished high school while early leavers and court appearances seem to have a distinctive correlation factor (Olson, 1989).

Contrary to the theory that the relieving of frustrations associated with early school leaving will decrease delinquent behaviour, especially in the period immediately after leaving school, Thornberry, Moore and Christenson (1985), found that criminal behaviour increased in the year following departure from school. They conclude that leaving prematurely correlates significantly with later criminal activity.

Criminological research has yet to provide a clear understanding of the relationship between leaving school before graduation and subsequent criminal activity.

According to Underwood (1987) "School dropouts should not be seen as those who are problems, but as those who have problems."

If we are to understand these problems then it is necessary to understand the person with the problems. This understanding needs to be an holistic one incorporating the individual's personality, socio-economic situation, aptitudes and abilities etc.

It is the aim of this research to provide a better understanding of how the early school leaver and completer differ in one of these dimensions namely personality. By providing information in this area employers, counsellors and other individuals can have a better understanding of the early school leavers and how they differ from school completers in aspects other than their educational qualifications.

What is needed is a multi-trait personality analysis of the early school leaver and completer. Such an investigation must be based on a comprehensive personality model.

Such a model is provided by the five factor model originally proposed by Taps and Christal (1961) and Norman (1963). Since then it has been recommended by investigators as the basis for an empirical taxonomy of traits (Costa & McCrae, 1988).

Extensive research has been conducted on the five factors and their components. The relationship between this particular model and various psychometric tests and personality theories has been investigated. (Botwin & Buss, 1989; Costa & McCrae, 1988). What appears evident is that when a large number of rating scales covering a broad scope are used then the domain of personality descriptors is almost completely accounted for by the five factors (Digman & Inouge, 1986). The NEO Personality Inventory (NEO-PI) is a concise measure of the five dimensions of normal adult personality. Three of the domain scales have been extensively researched and validated i.e. Neuroticism (N), Extraversion (E) and Openness (O). For these three domains more detailed information is provided by facet scales which measure specific traits. The NEO-PI also includes two additional domain scales: Agreeableness (A) and Conscientiousness (C).

At the outset it must be stated that the labels used for each factor do not capture the full complexity of each factor and various researchers have suggested different titles (Botwin & Buss, 1989).

The five areas covered by this model relate well to some of the existing research findings with respect to personality traits associated with the early school leaver.

There are however two aspects which either facilitate or hinder any initial attempt at an integration of the five factor model and the personality traits of the early high school leaver. These are first, the existing knowledge of each of the factors that make up the five factors, and secondly existing knowledge of the personality traits of the early leaver.

Neuroticism (N):

It is hoped that this domain more than any other will provide new and valuable information with regard to the personality traits of the early school leaver. Previous research indicates that individuals who leave school before completion of their studies tend to be more impulsive, immature, emotionally unstable and irresponsible (Wilson, 1980). This domain is concerned with neuroticism, anxiety, impulsivity, hostility, depression, self-consciousness and vulnerability (Botwin & Buss, 1989; Digman & Inouye, 1986; Costa & McCrae, 1988).

It contrasts adjustment or emotional stability with maladjustment or neuroticism. Individuals high on this domain are prone to experience anxiety. Due to the key role that anxiety plays in the theory of psychopathology this dimension is sometimes called general anxiety. Individuals high on this dimension are also likely to experience emotions of disgust, anger, sadness, embarrassment and a variety of negative emotions.

It has even been proposed that this domain be called negative emotionality. Negative emotionality affects an individual's adaptation and adjustment to his environment. Individuals scoring high on neuroticism often have unrealistic ideas, poor impulse control, and cope less well than others with stress.

Extraversion (E):

The research will enable an examination of this dimension in the early school leaver and provide confirmation or otherwise with regard to the findings of researchers such as Poole and Low (1982) that the male early school leaver is an extrovert. Research into this aspect of the early school leaver's personality seems to have concentrated on the broad categorization i.e. introvert/extrovert rather than the various personality facets that make up this dimension. It is in this area that this research will attempt to obtain additional information as it relates to this domain. The relationship of extraversion to other domains such as neuroticism will also be considered. Individuals scoring high on this domain prefer large groups, are assertive, active and talkative, they like excitement, stimulation and are of a cheerful disposition. Introversion should be seen as the absence of extraversion rather than the opposite. Introverts are reserved, independent and prefer to be alone.

Openness (O):

This is the domain about which there seems to be the least clarity. It has been described as consisting of elements of imagination, originality and openness to experience (Botwin & Buss, 1989; Digman & Inouye, 1986; Costa & McCrae, 1986). Open individuals are curious about both inner and outer worlds. They are willing to entertain novel ideas and unconventional values. They experience positive and negative emotions more keenly than other people. Individuals scoring low on openness tend to be more conventional in their behaviour and conservative in their viewpoints. The author can find no research relating adequately to this factor with respect to individuals who leave high school before completion of their studies. The numerous findings indicating that these individuals come from predominantly impoverished socio-economic backgrounds would tend to indicate that this domain could yield important findings (Self, 1985; Markey, 1987).

Facets of N, E, and O:

Each of the above domains has six specific scales that measure facets of the domain.

The six facets of Neuroticism measured by the NEO-PI are:

Anxiety (N1): This is manifest rather than latent anxiety, but includes general tendencies towards both free-floating anxiety and specific fears.

Hostility (N2): This facet is representative of the tendency to experience anger and related emotional states, including hatred and irritability.

Depression (N3): Scores on this facet are the best predictors of overall happiness or unhappiness. This facet measures the tendency of an individual to experience depressive affect. High scores would tend to indicate that the individual is prone to feelings of guilt, sadness, hopelessness and loneliness.

Self-Consciousness (N4): This facet has a lot in common with what is often referred to as social anxiety. Self-conscious individuals experience emotions of shame and embarrassment. They are sensitive to ridicule and are prone to feelings of inferiority or low self-esteem.

Impulsiveness (N5): This facet refers to the inability to control cravings or urges.

Vulnerability (N6): Individuals high on this facet are unable to cope with stress, they become dependent, hopeless or panicky when faced with emergency situations. Low scorers perceive themselves as competent in stressful situations.

The six facets of Extraversion measured by the NEO-PI are:

Warmth (E1): This aspect of extraversion implies close emotional ties with others.

Gregariousness (E2): This facet refers to the quantity of social stimulation desired.

Assertiveness (E3): High scorers tend to be dominant and forceful while low scorers keep a low profile and avoid confrontation.

Activity (E4): This facet refers to the degree to which an individual is driven and his energy level.

Excitement-Seeking (E5): This facet measures the need for excitement and stimulation. It is similar to sensation and stimulus-seeking behaviour.

Positive Emotions (E6): This facet represents the tendency to experience positive emotions.

The six facets of Openness measured by the NEO-PI are:

Fantasy (O1): Individuals scoring high on this facet use their active fantasy life and vivid imagination to contribute to a rich and creative life.

Aesthetics (O2): This facet measures the degree of appreciation for art and beauty and the desire to broaden one's knowledge and appreciation of the arts.

Feelings (O3): This facet measures an individual's receptivity to inner feelings and their acceptance of emotions as an important part of life.

Actions (O4): This facet measures a preference for the novel rather than the routine.

Ideas (O5): This facet measures an active interest in intellectual activities as well as an open mindedness and willingness to consider new ideas.

Values (O6): This facet measures readiness to re-examine social, religious and social values.

The Two Additional Domains, Agreeableness (A) and Conscientiousness (C):

Facets for these domains have not yet been identified.

These two domains have only recently been developed and much less research has been conducted on them.

Agreeableness (A):

This domain emphasizes personality traits related to interpersonal relationships. It includes traits such as thoughtfulness, concern for others, friendly compliance verses hostile non-compliance and capacity for friendly

relationships verses hostile relationships (Botwin & Buss, 1989; Digman & Inouye, 1986; Costa & McCrae, 1988). This domain assesses the quality of the individual's interpersonal orientation. This is one area where there appears to be extensive information on early school leavers. Research indicates that they are found to be hostile, aggressive, rebellious, non-conforming, socially poorly adjusted, have a negative attitude towards others, serve their own interests, have high levels of interpersonal conflict and are indifferent to the needs of others (Wilson, 1985; Nelson, 1985; Poole & Low, 1982; Cairns et al., 1989). Here more than with any other factor this research will provide support or otherwise for existing data, while at the same time integrating it into a comprehensive model.

Conscientiousness (C):

A more appropriate name has been suggested by Digman (1986) namely; will to achieve. This domain is made up of elements of carefulness, planning, persistence, and purposeful striving towards goals (Botwin & Buss, 1989; Digman & Inouye, 1986; Costa & McCrae, 1988). It has also been found to correlate highly with educational achievement (Digman, 1986). This domain assesses the individuals degree of organization, persistence and motivation in goal directed behaviour. On the surface this factor would seem to be the one most directly related to the early school leaver.

It is hoped that this research will provide confirmation or otherwise in respect of previous research findings indicating that early school leavers lack persistence, have less initiative and reliability, low levels of achievement motivation and low aspirations (Wilson, 1988; Cairns et al., 1989; Poole & Low, 1982).

Research on the topic of early school leavers, or as they are more frequently referred to in the literature 'dropouts', has been carried out for the last fifty years and has been extensive.

The majority of the studies have been carried out in The United States of America. South African studies have been few and often examining aspects of an education system that are the consequences of a racially discriminatory system. There are few conflicting findings. Most researchers are in agreement that early school leaving has adverse personal and social consequences. The findings with respect to both the personal and social consequences have been either in agreement or at least complementary.

Overseas and local research has tended to be too broad, examining a wide variety of variables in one study. The consequence of this has been enlightening findings that are difficult to use in any constructive manner due to their lack of specificity.

A few studies have limited their research to the individual in terms of personality characteristics. Some researchers have questioned the role of intelligence in early school leaving feeling that it may not play as important a role as is often assumed.

Further research is needed into the specific variables that contribute towards early school leaving and the interactive effects of these variables. The research of the author attempts to provide information with respect to a very specific sub-group. It consists of individuals who have the ability and opportunity to complete their high school education yet still decide to leave school prematurely.

3 METHODS AND TECHNIQUES

3.1 Plan of study

The plan of the study was to find out whether white male South Africans who leave high school before completion of their studies differ significantly in certain domains of personality from their counterparts who complete their high school studies.

The NEO-PI needed to be obtained from Psychological Assessment Resources, Inc. in the United States of America.

Permission to psychometrically evaluate subjects had to be obtained from the organizations employing the subjects. Arrangements with respect to testing dates, locations and the necessary facilities had to be negotiated and finalised. Psychometrists assisting in test administration had to be informed of all arrangements.

Once the above was finalized testing would take place on the prearranged dates at specific locations.

The answer sheets of one hundred (100) randomly selected school completers and one hundred (100) randomly selected early school leavers then had to be marked. These results had to be analyzed using the SAS ver.6.06 computer programme.

A statistician of the Department of Statistics, University of the Witwatersrand was asked to scrutinise the results in order to ascertain the correctness of all procedures and results.

3.2 Research Design

An unmatched group comparative design was used. Factors such as social class, marital status of parents, home language, parent's level of education, income and size of family were to be 'controlled' by means of the random selection of subjects. One hundred (100) early school leavers and one hundred (100) school completers were to be randomly selected by the author from those individuals who completed the NEO-PI. The data was then analyzed.

3.3 Subjects

Early school leavers were identified as white male South Africans who left high school during or after standard 8 but before completing standard 10. Subjects completing their secondary schooling were identified as white male South Africans with a Standard 10 education. Only males falling within the age group sixteen (16) to nineteen (19) years of age were included in the study.

The subjects had no post school training or work experience and had left school in the six months prior to testing.

Subjects came from technical as well as academic high schools situated throughout South Africa.

All the schools offered the subjects the opportunity to continue their education until Standard 10.

Subjects who left secondary school before completion of their studies but who were not included in the study were individuals who left school because they had failed the same standard more than once. The other group not included were individuals who left school because a member of the education system informed them that they did not have the intellectual capacity to complete secondary school.

Individuals who were continuing their education at institutions other than a high school were not included in the study.

Due to the NEO-PI being a test that is only available in the English language only subjects who came from families where English is the first language or individuals who felt that they are proficient in English were included in the study.

Subjects were obtained from various organizations that regularly psychometrically evaluate Standard 8,9 and 10 males. Permission was obtained from these organizations.

3.4 Test Instrument

The test instrument used was the NEO-PI (Costa and McCrae, 1988). The NEO-PI arrives at a personality profile through factor analytic methods and is the only instrument designed to measure the five domains of normal personality according to the five factor model.

Internal consistency for the scales vary between .85 and .93. Test-retest reliabilities range between .86 and .91. (Costa & McCrae, 1988)

The test has not been standardized on the South African population.

3.5 Administration

The NEO-PI was administered by the author and registered psychometrists to all individuals being psychometrically evaluated at the organizations.

Subjects were informed that the tests were not part of a selection battery and that the results were part of a research project. In order to ensure anonymity of the subjects the organizations requested that no reference be made to them in the study. In addition to this the subjects were not required to provide any form of identification on any of the documentation.

The NEO-PI was administered to groups ranging in size from thirty (30) to two hundred (200) individuals. For the testing of large groups (more than fifty individuals) registered psychometrists were used. This provided a ratio of one psychometrist per thirty subjects.

A reusable test booklet containing standard instructions for the use of the answer sheet, as well as a brief explanation of the inventory and how to complete it was handed to each subject. Instructions were given verbally in English and in Afrikaans and any questions that subjects had were answered.

Afrikaans subjects who found the English too difficult to understand were permitted to discontinue with the questionnaire. Language problems with specific questions were dealt with by having a psychometrist translate the question into Afrikaans for the subject.

There was no time limit imposed for completing the NEO-PI. Most subjects completed it within forty five minutes.

3.6 Statistical Analysis

3.6.1 Simple Analysis

A student t-test was used in order to establish whether the two groups differed significantly in the five personality domains and the eighteen facets. A two-tailed test was used. The level of significance is taken as 0.05.

3.6.2 Multivariate Analysis

A stepwise discriminate function analysis of the data was used in order to establish which of the five domains best discriminate between the two groups. A discriminant analysis was carried out on the five domains in order to ascertain what percentage of subjects is correctly classified as early school leavers or completers by the five domains. A further discriminant analysis was carried out on the domains identified by the stepwise discriminate function analysis as best discriminating between the two groups in order to ascertain what

percentage of subjects are correctly classified as early school leavers or completers by these domains.

A multivariate analysis of variance was carried out in order to ascertain whether a difference exists between the facets that make up the domains identified by the stepwise discriminate function analysis. A stepwise discriminate function analysis of the facets that make up each of the domains was carried out in order to ascertain which of the facets contribute significantly to that domain being significantly different with respect to the two groups.

4 RESULTS

4.1 Simple Analysis

4.1.1 Student t-test

Table 1: Statistics for the Five Domains

Domain	Std=10		Std<10			Level of sign.
	X	s	X	s	t	
N	80.13	11.83	100.29	10.33	12.84	0.001
E	121.36	15.96	106.20	11.21	-7.77	0.001
O	102.18	11.54	99.02	9.18	-2.14	0.05
A	42.78	6.52	38.87	4.54	-4.92	0.001
C	50.39	7.75	44.79	7.75	-5.11	0.001

There is a significant difference between early school leavers and completers at a 0.05 significance level on each of the domains of neuroticism (N), extraversion (E), openness to experience (O), agreeableness (A) and conscientiousness (C).

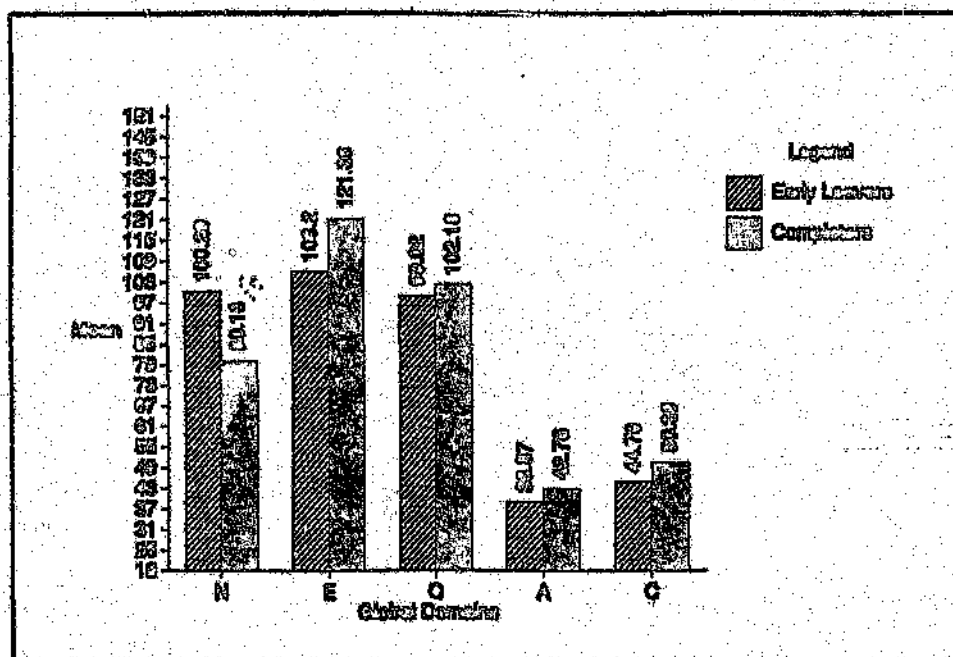


Figure 1: Mean Values for the domains of Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C).

Table 2: Statistics for the Six Neuroticism Facets

Facet	Std=10		Std<10			Level of sign.
	X	s	X	s	t	
N1	14.03	3.67	16.64	3.04	5.47	0.001
N2	12.57	3.65	16.40	4.08	6.99	0.001
N3	14.18	3.26	18.49	3.82	8.59	0.001
N4	15.12	3.07	17.02	2.99	4.43	0.001
N5	13.90	2.73	16.35	3.17	5.85	0.001
N6	10.33	3.72	15.39	3.34	10.12	0.001

Early school leavers differ significantly from school completers at a 0.05 level of significance on all the facets that contribute to the neuroticism domain.

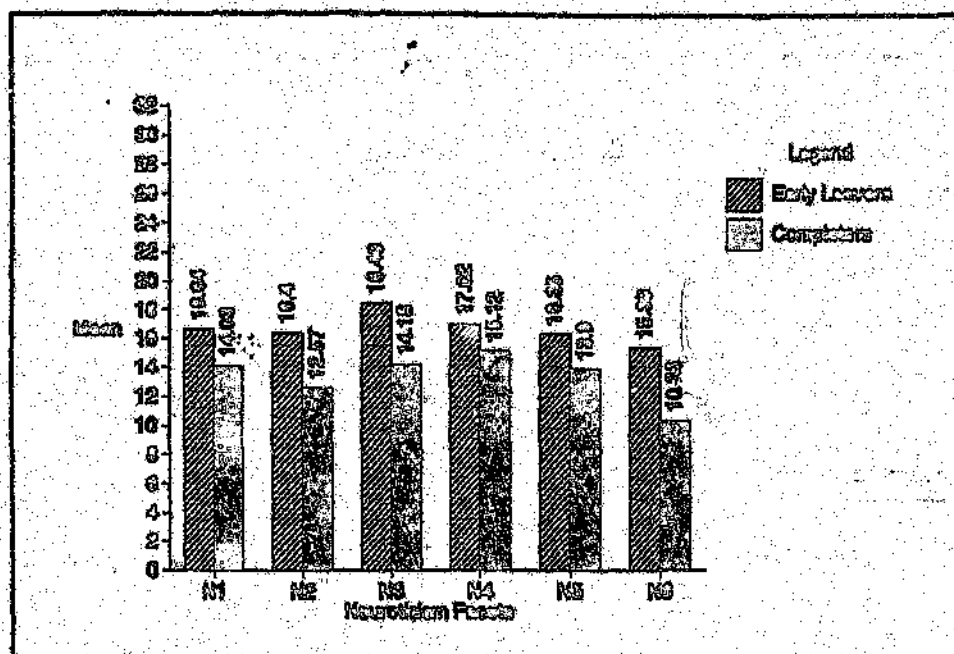


Figure 2: Mean Values for the facets of Anxiety (N1), Hostility (N2), Depression (N3), Self-Consciousness (N4), Impulsiveness (N5) and Vulnerability (N6).

Table 3: Statistics For the Six Extraversion Facets

Facet	Std=10		Std<10			Level of sign.
	X	s	X	s	t	
E1	23.57	3.97	20.12	4.44	-5.79	0.001
E2	19.63	5.06	16.15	4.03	-5.38	0.001
E3	18.45	3.63	16.20	3.18	-4.66	0.001
E4	18.50	3.38	17.38	2.91	-2.51	0.05
E5	21.00	3.80	18.70	3.60	-4.39	0.001
E6	20.21	3.24	17.65	3.28	-5.55	0.001

There is a significant difference between early school leavers and completers at a 0.05 level of significance on the facets of warmth (E1), gregariousness (E2), assertiveness (E3), activity (E4), excitement-seeking (E5) and positive emotions (E6).

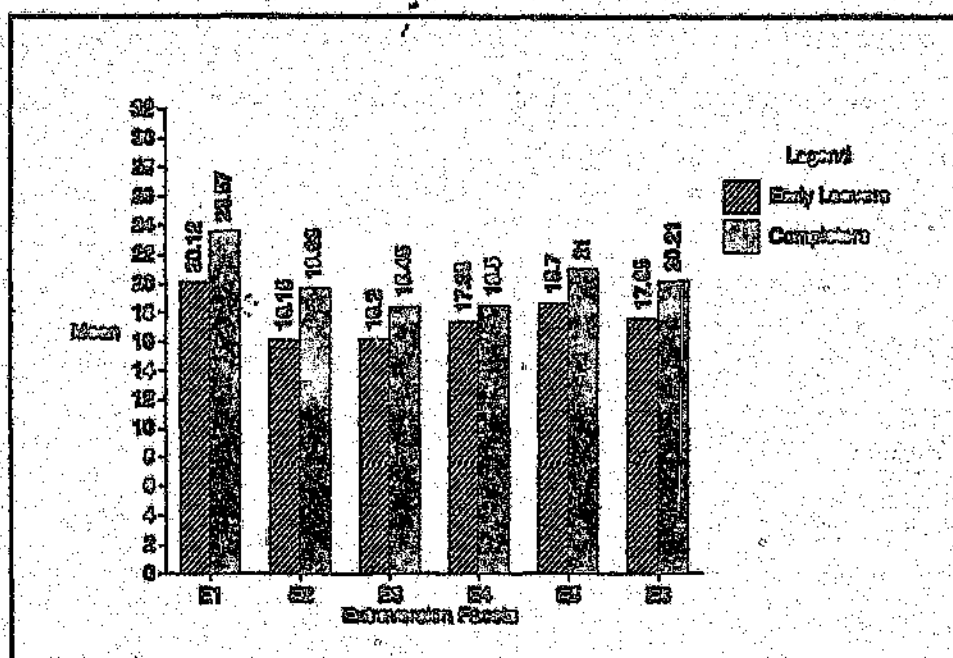


Figure 3: Mean Values for facets of Warmth (E1), Gregariousness (E2), Assertiveness (E3), Activity (E4), Excitement-Seeking (E5) and Positive Emotions (E6).

Table 4: Statistics for the Six Openness Facets

Facet	Std=10		Std<10			Level of sign.
	X	s	X	s	t	
01	16.92	4.31	16.50	3.40	-0.76	not sign.
02	16.14	4.43	16.64	3.68	0.87	not sign.
03	20.15	3.12	19.05	3.90	-2.20	0.05
04	14.00	2.60	14.33	3.01	0.83	not sign.
05	18.75	4.52	16.86	3.43	-3.33	0.001
06	16.20	2.60	15.61	2.67	-1.58	not sign.

There is no significant difference between early school leavers and completers at a 0.05 level of significance on the facets of fantasy (O1), aesthetics (O2), actions (O4) and values (O6). The facets of feelings (O3) and ideas (O5) are significantly different at a 0.05 level.

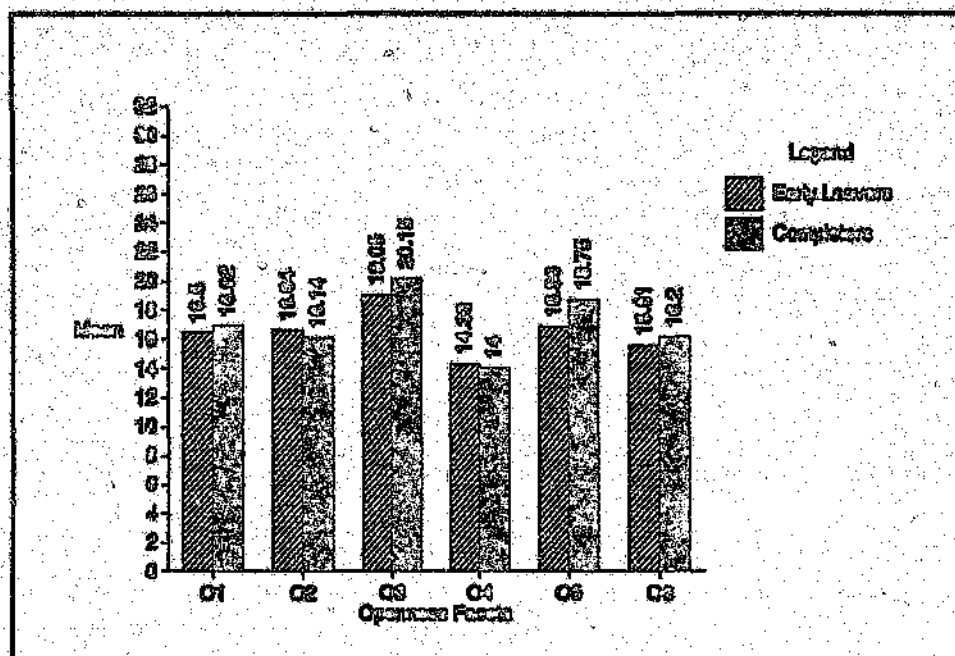


Figure 4: Mean Values for the facets of Fantasy (O1), Aesthetics (O2), Feelings (O3), Actions (O4), Ideas (O5) and Values (O6).

4.2 Multivariate Analysis

4.2.1 Stepwise Discriminant Function Analysis of All Five Domains

Table 5: Summary Results for Stepwise Discriminant Function Analysis of All Five Domains

Step	Variable Entered	F Statistic	Prob > F
1	N	164.0835	0.0001
2	E	6.399	0.0122

Neuroticism (N) and extraversion (E) are the best domain discriminators between early school leavers and completers at a 0.05 significance level.

4.2.2 Discriminant Analysis of All Five Domains

Table 6: Number of Observations and Percent Classified into Standard Using All Five Domains

From Std	Std<10	Std=10	Total
Std<10	93 93.00	7 7.00	100 100.00
Std=10	18 18.00	82 82.00	100 100.00
Total Percent	111 55.50	89 44.50	200 100.00
Priors	0.5000	0.5000	

Table 7: Error Count Estimates for Standard Using All Five Domains

	Std<10	Std=10	Total
Rate	0.0700	0.1800	0.2500
Priors	0.5000	0.5000	

These results indicate that 87.5% of the subjects can be correctly classified as early school leavers or completers using the five domains.

4.2.3 Discriminant Analysis of the Domains of Neuroticism (N) and Extraversion (E)

Table 8: Number of Observations and Percent Classified into Standard Using the Domains of Neuroticism (N) and Extraversion (E)

From Std	Std<10	Std=10	Total
Std<10	90 90.00	10 10.00	100 100.00
Std=10	18 18.00	82 82.00	100 100.00
Total	108	92	200
Percent	54.00	46.00	100.00
Priors	0.5000	0.5000	

Table 9: Error Count Estimates for Standard Using the Domains of Neuroticism (N) and Extraversion (E)

	Std<10	Std=10	Total
Rate	0.1000	0.1800	0.1400
Priors	0.5000	0.5000	

These results indicate that 86% of the subjects can be correctly classified as early school leavers or completers using only the domains of neuroticism (N) and extraversion (E).

4.2.4 Multivariate Analysis of Variance

Table 10: Manova Test Criteria and Exact F Statistic for the Hypothesis of no Overall Standard Effect Based on the Six Neuroticism Facets

Statistic	Values	F	Num Df	Den Df	Pr > F
Wilk's Lambda	0.52069054	29.6103	6	193	0.0001

Table 11: Multivariate Test Criteria and Exact F Statistic for the Hypothesis of no Overall Standard Effect Based on the Six Extraversion Facets

Statistic	Values	F	Num DF	Den Df	Pr > F
Wilk's Lambda	0.74836645	10.8158	6	193	0.0001

There is a significant difference between early leavers and completers on the facets that make up the domains of neuroticism and extraversion.

4.2.5 Stepwise Discriminant Function Analysis of the Six Facets of Neuroticism

Table 12: Summary Results for Stepwise Discriminant Function Analysis of the Six Facets of Neuroticism

Step	Variable Entered	F Statistic	Prob > F
1	N6	102.377	0.0001
2	N3	31.100	0.0001
3	N2	14.292	0.0001

Vulnerability (N6), depression (N3) and hostility (N2) are the best neuroticism (N) facet discriminators between early school leavers and completers at a 0.05 significance level.

4.2.6 Discriminant Analysis of the Facets of Hostility (N2), Depression (N3), Vulnerability (N6)

Table 13: Number of Observations and Percent Classified into Standard Using the Facets of Hostility (N2), Depression (N3), Vulnerability (N6)

From Std	Std<10	Std=10	Total
Std<10	87 87.00	13 13.00	100 100.00
Std=10	20 20.00	93 93.00	100 100.00
Total Percent		93 50	200 100.00
Priors	0.5000	0.5000	

Table 14: Error Count Estimates for Standard Using the Facets of Hostility (N2), Depression (N3), Vulnerability (N6)

	Std<10	Std=10	Total
Rate	0.1300	0.2000	0.1650
Priors	0.5000	0.5000	

These results indicate that 83.5% of the subjects can be correctly classified as early school leavers or completers using only the facets of hostility (N2), depression (N3), vulnerability (N6).

4.2.7 Stepwise Discriminant Function Analysis of the Six Facets of Extraversion

Table 15: Summary Results for Stepwise Discriminant Function Analysis of the Six Facets of Extraversion

Step	Variable Entered	F Statistic	Prob > F
1	E1	33.561	0.0001
2	E6	14.611	0.0001
3	E2	8.802	0.0001

Warmth (E6), positive Emotions (E6) and gregariousness (E2) are the best extraversion (E) facet discriminators between early school leavers and completers at a 0.05 significance level.

4.2.8 Discriminant Analysis of the Facets of Warmth (E1), Assertiveness (E2), Positive Emotions (E6)

Table 16: Number of Observations and Percent Classified into Standard Using the Facets of Warmth (E1), Assertiveness (E2), Positive Emotions (E6)

From Std	Std<10	Std=10	Total
Std<10	73 73.00	27 27.00	100 100.00
Std=10	34 34.00	66 66.00	100 100.00
Total	107	93	200
Percent	53.50	46.50	100.00
Priors	0.5000	0.5000	

Table 17: Error Count Estimates for Standard Using the Facets of Warmth (E1), Assertiveness (E2), Positive Emotions (E6)

	Std<10	Std=10	Total
Rate	0.2700	0.3400	0.3050
Priors	0.5000	0.5000	

These results indicate that 69.5% of the subjects can be correctly classified as early school leavers or completers using only the facets of warmth (E1), assertiveness (E2), positive emotions (E6).

5 DISCUSSION OF RESULTS

The aim of the research is to find out whether white male South Africans who leave high school before completion of their studies differ significantly in the personality domains of neuroticism, extraversion, openness, agreeableness and conscientiousness, from their counterparts who complete their high school studies.

The results of the various statistical analyses indicates that the aim has been met. A clear picture has emerged that shows that the early school leavers differ from completers in the five domains at a 0.05 level of significance. Inspection of the direction of the significant difference in these domains shows that early school leavers have lower scores compared to school completers in the domains of extraversion, openness, agreeableness and conscientiousness and higher scores in the domain of neuroticism.

The results of the student-t test show that there is a significant difference between early school leavers and completers on each of these domains. Furthermore the difference between the two groups is significant on the facets of anxiety, hostility, depression, self-consciousness, impulsiveness, vulnerability, warmth.

gregariousness, assertiveness, activity, excitement-seeking, positive emotions, feelings and ideas. Inspection of the direction of the significant difference in these facets shows that early school leavers have lower scores compared to school completers in the facets of warmth, gregariousness, assertiveness, activity, excitement-seeking, positive emotions, feelings and ideas and higher scores in the facets of anxiety, hostility, depression, self-consciousness, impulsiveness, vulnerability. No significant difference between early school leavers and completers was found on the facets of fantasy, aesthetics, actions and values.

The Stepwise Discriminant function analysis carried out on the five domain scales shows that neuroticism and extraversion are the best domain discriminators between early school leavers and completers.

The Discriminant Analysis carried out on all five domains indicate that 87.5% of the subjects can be correctly classified as early school leavers or completers using the five domains. Using only the two domains identified by the stepwise discriminant function analysis namely neuroticism and extraversion a discriminant analysis indicates that 86% of the subjects can be correctly classified as early school leavers or completers using only these two domains. Thus by using these two domains there is only a 1.5% decrease in the accuracy of prediction.

The Multivariate Analysis of Variance shows that the hypothesis that there is no difference between the facets can be rejected at a 0.05 level of significance.

The Stepwise Discriminant Function Analysis carried out on the facets of the neuroticism and extraversion domains show that it is the facets of vulnerability, depression and hostility that are the best neuroticism facet discriminators and warmth, positive emotions and gregariousness that are the best extraversion facet discriminators between early school leavers and completers.

The Discriminant Analysis carried out on the facets of vulnerability, depression and hostility indicate that 83.5% of the subjects can be correctly classified as early school leavers or completers using only these three facets.

The Discriminant Analysis carried out on the facets of warmth, positive emotions and gregariousness indicate that 69.5% of the subjects can be correctly classified as early school leavers or completers using only these three facets.

6 CONCLUSIONS AND RECOMMENDATIONS

The results relating to the domain of neuroticism tend to indicate that school completers are more emotionally stable and better able to adapt and adjust to their environment compared to early school leavers. The findings confirm earlier research findings that early school leavers are more impulsive, emotionally less stable, are lower in self esteem and more hostile than completers. In addition to the above it is now also evident that the early leaver differs from the completer in terms of his higher general anxiety. What this research has shown is that it is the early school leaver's poorer ability to cope with stress, his greater tendency towards depressive affect and his greater anger and irritability that best discriminate him from the completer in terms of his higher emotional instability.

Previous research on early school leavers has examined extraversion very broadly and found early leavers to be more extroverted than completers. The present research had differed in terms of a very specific investigation into extraversion and its various components. The findings contradict previous findings as the early school leaver was found to be less extroverted than the

completer. He was found to be less dominant and forceful, to have a lower energy level and to engage in less stimulus seeking behaviour. The facets that best discriminate between the early school leaver and completer in terms of extraversion were his fewer emotional ties with others, his fewer positive emotions and less desire for social stimulation.

As stated previously there are very few research findings related to the areas measured by the openness domain. It is this domain that yielded the fewest significant findings. What was confirmed was the finding that early school leavers are less interested than completers in intellectual activities. It is significant and represents a new contribution to this area of research is the finding that early school leavers are less receptive to their inner feelings and do not accept emotionality as readily as completers do.

The numerous previous research findings on early school leavers in terms of agreeableness have been largely confirmed by the current findings. Early leavers were found to be more antagonistic in interpersonal relationships compared to completers with respect to thoughts, feelings and actions.

The previous research findings with respect to the early school leaver's persistence, initiative and achievement motivation have been largely confirmed by the findings that he is less goal directed and less persistent than the completer.¹⁴

The present research has shown that early school leavers do differ from completers in the five domains of neuroticism, extraversion, openness, agreeableness and conscientiousness. The research has also avoided the broad categorization that has plagued previous research and highlighted the differences between the two groups with greater specificity and in so doing added information to existing findings in this area. This is evident by the identification of neuroticism and extraversion as being the best discriminators between the two groups as well as identifying the facets that contribute to these being the best discriminators.

Research as an end in itself can be self indulgent and achieve little. What contribution can the findings of this research make to the individual who is considering leaving school prematurely, to the individual who has left school prematurely and to the broader society?

As stated previously the individual considering leaving school before completion of his studies is often an individual in crisis.

The individual who has left school prematurely may also be subject to significant stressors and be an individual in crisis. Both these categories of early school leavers can benefit from counselling and in some cases psychotherapy.

Trait theories such as the five factor model can be beneficial to counsellors and clinicians by providing information on the clients needs, feelings, motives and interpersonal style. Miller (1991), suggests that neuroticism influences the intensity and duration of the clients distress, extraversion influences the client's enthusiasm for treatment, openness influences the client's reactions to the counsellor or clinician's interventions, agreeableness influences the client's reaction to the person of the counsellor or clinician and conscientiousness influences the client's willingness to work in therapy.

The information provided by the current research findings can aid the counselling process in a number of ways namely determining the best approach to counselling, providing insight into the underlying clinical problems, developing appropriate treatment strategies and anticipating outcomes.

High school counsellors need to be trained with respect to the specific personality aspects that would appear to

contribute towards early school leaving. Appropriate intervention techniques specifically aimed at the main problem areas as highlighted by this study could be taught and implemented within the counselling situation. This would aid in goal directed short term counselling where it is important to have a clear focus and understanding of the problem areas if successful outcome is to be achieved.

It is the opinion of the author that interventions of this nature can contribute to a reduction in the number of individuals who have the ability and opportunity to complete their schooling from leaving school early.

The current research was undertaken in an industrial / commercial environment. It is within this environment that the employed early school leaver will eventually find himself. By taking cognisance of the findings of this research human resource practitioners can make appropriate interventions and recommendations in terms of career planning and support. Many organizations employ clinical or counselling psychologists to cater for the psychological well being of employees. The recommendations with respect to high school counsellors are also appropriate for these psychologists when helping the employee cope with personal, social and employment stressors.

Society is the eventual beneficiary of higher educated individuals and hopefully lower unemployment. The current findings are in no way meant to apportion all the responsibility for early school leaving on the individual concerned. Neither are the recommendations intended to be a panacea for all the ills related to the early school leaving problem. It is hoped that a better understanding of the way in which the early school leaver differs from the completer in the five domains of neuroticism, extraversion, openness, agreeableness and conscientiousness will provide some assistance with respect to interventions in one aspect of a large and complex social and individual problem.

APPENDIX

APPENDIX A

Table 18: Correlation Analysis Pearson Correlation
Coefficients / Prob>|R| under Ho: Rho=0/N=200
For Neuroticism (N), Extraversion (E), Openness (O),
Agreeableness (A), Conscientiousness (C).

	N	E	O	A	C
N	1.00000 0.0	-0.55558 0.0001	-0.09074 0.2013	-0.40339 0.0001	-0.43395 0.0001
E	-0.55558 0.0001	1.00000 0.0	0.27921 0.0001	0.52853 0.0001	0.58151 0.0001
O	-0.09074 0.2013	0.27921 0.0001	1.00000 0.0	0.21408 0.0023	0.06792 0.3393
A	-0.40339 0.0001	0.52853 0.0001	0.21408 0.0023	1.00000 0.0	0.39498 0.0001
C	-0.43395 0.0001	0.58151 0.0001	0.06792 0.3393	0.39498 0.0001	1.00000 0.0

Table 19: Correlation Analysis Pearson Correlation
Coefficients / Prob>SR1 under Ho: Rho=0/N=200

For Anxiety (N1), Hostility (N2), Depression (N3),

Self-Consciousness (N4), Impulsiveness (N5),

Vulnerability (N6).

	N1	N2	N3	N4	N5	N6
N1	1.00000 0.0	0.34591 0.0001	0.36468 0.0001	0.15526 0.0281	0.14012 0.0478	0.33288 0.0001
N2	0.34591 0.0001	1.00000 0.0	0.34458 0.0001	0.15957 0.0240	0.22839 0.0011	0.34172 0.0001
N3	0.36468 0.0001	0.34458 0.0001	1.00000 0.0	0.26705 0.0001	0.36610 0.0001	0.42863 0.0001
N4	0.15526 0.0281	0.15957 0.0240	0.26705 0.0001	1.00000 0.0	0.34083 0.0001	0.32259 0.0001
N5	0.14012 0.0478	0.22439 0.0011	0.36610 0.0001	0.34083 0.0001	1.00000 0.0	0.50996 0.0001
N6	0.33288 0.0001	0.34172 0.0001	0.42863 0.0001	0.32259 0.0001	0.50996 0.0001	1.00000 0.0

Table 20: Correlation Analysis Pearson Correlation
Coefficients / Prob>|R| under H₀: Rho=0/N=200

For Warmth (E1), Gregariousness (E2), Assertiveness (E3),
Activity (E4), Excitement-Seeking (E5), Positive Emotions
(E6).

	E1	E2	E3	E4	E5	E6
E1	1.00000 0.0	0.44264 0.0001	0.29532 0.0001	0.33036 0.0001	0.45793 0.0001	0.37137 0.0001
E2	0.44264 0.0001	1.00000 0.0	0.43738 0.0001	0.16241 0.0216	0.37712 0.0001	0.25419 0.0003
E3	0.29532 0.0001	0.43738 0.0001	1.00000 0.0	0.28248 0.0001	0.26697 0.0001	0.27601 0.0001
E4	0.33003 0.0001	0.16241 0.0216	0.28248 0.0001	1.00000 0.0	0.25510 0.0003	0.15121 0.0326
E5	0.45793 0.0001	0.37712 0.0011	0.26697 0.0001	0.25510 0.0003	1.00000 0.0	0.43074 0.0001
E6	0.37137 0.0001	0.25419 0.0003	0.27601 0.0001	0.15121 0.0326	0.43074 0.0001	1.00000 0.0

Table 21: Correlation Analysis Pear relation
Coefficients / Prob>[R] under Ho: Rho=0/N=200
For Fantasy (01), Aesthetics (02), Feelings (03),
Actions (04), Ideas (05), Values (06).

	01	02	03	04	05	06
01	1.0000 0.0	0.10290 0.0001	0.04130 0.0001	0.25443 0.0001	-0.0236 0.0001	0.1728 0.0001
02	0.10290 0.1471	1.00000 0.0	0.12093 0.0880	-0.0456 0.5210	0.33497 0.0001	0.0729 0.3043
03	0.04130 0.5615	0.12093 0.0880	1.00000 0.0	-0.1353 0.0561	0.18098 0.0103	0.2617 0.0002
04	0.25443 0.0003	-0.0456 0.5210	-0.1353 0.0561	1.00000 0.0	0.1540 0.0294	-0.041 0.5566
05	-0.0236 0.7392	0.33497 0.0001	0.18098 0.0103	-0.1540 0.0294	1.00000 0.0	0.1367 0.0535
06	0.17287 0.0144	0.07299 0.3043	0.26174 0.0002	-0.0418 0.5566	0.13675 0.0535	1.00000

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