CHAPTER 10

RESULTS

The results of the various statistical techniques are subsequently discussed.

10.1 Descriptive Statistics

In Tables 10.1, 10.2, 10.3 and 10.4 the mean, standard error of the mean, standard deviation, variance, skewness and kurtosis of:

- matric subjects;
- DISCUSS;
- Myers-Briggs;
- Nowicki-Strickland & Lefcourt I/E Scales; and
- Technikon major subjects are presented.

Table 10.1: Descriptive statistics of matric subjects (N=286).

	Mean	Standard error of the Mean	Standard Deviation	Variance	Skewness	Kurtosis
Afrikaans	4.2418	6.787E-02	1.1214	1.258	-.220	-.252
English	4.0848	5.438E-02	.9147	.837	-.169	-.052
Mathematics	4.2979	.1111	1.3188	1.739	-.377	.078
Economics	4.3158	.1404	1.2243	1.499	-.857	.843
Business Economics	4.5269	.1210	1.1665	1.361	-.549	-.213
Typing	2.6429	.2123	1.3761	1.894	.512	-.482
Biology	4.7202	8.051^{E}-02	1.0435	1.089	-.953	.864
Science	4.5761	.1106	1.0611	1.126	-.486	-.418
Home Economics	3.5000	.3437	1.2860	1.654	-.886	.359
Art	4.0000	1.0000	1.7321	3.000	-1.732	.
Music						
Computers	4.8000	.2000	.4472	.200	-2.236	5.000
Geography	4.5122	.1180	1.0686	1.142	-.904	.774
History	4.5000	.1450	.9832	.967	-.293	-.307
Industrial Arts	4.2857	.2857	.7559	.571	-.595	-.350
S-Sotho	3.5000	.3273	.9258	.857	.000	.000
Swazi	3.6250	.2631	.7440	.554	-1.951	3.205
Agriculture	4.2174	.3077	1.4758	2.178	-.410	-.606
Northern Sotho	3.6667	.1209	.9819	.964	-.585	.213

Table 10.1: (continued)

	Mean	Standard error of the Mean	Standard Deviation	Variance	Skewness	Kurtosis
Accounting	4.5055	.1320	1.2594	1.586	-.729	-.060
Technika	4.6667	.3333	.5774	.333	-1.732	.
Tswana	3.8413	9.386E-02	.7450	.555	.026	-.661
Biblical Studies	4.0465	.1851	1.2141	1.474	-.679	.240
German	4.0000	1.0000	1.4142	2.000	.	.
Law	2.5000	1.5000	2.1213	4.500	.	.
Woodwork	3.4000	.4000	.8944	.800	-1.258	.312
Fitting & Turn	2.0000	.	.	.	.	.
Eng Science	4.0000	.5774	1.0000	1.000	.000	.
Motor Eng	4.5000	.5000	.7071	.500	.	.
Zulu	4.2000	.1414	.7071	.500	-.307	-.846
Xhosa	4.1429	.2608	.6901	.476	-.174	.336
Electrical Works	4.5000	.5000	.7071	.500	.	.
Ind Electricity	4.5000	.5000	.7071	.500	.	.
Electrical Technology	5.0000	.	.	.	.	.
Tsonga	3.5000	.1667	.5270	.278	.000	-2.571

In respect of Table 10.1 the distribution is skewed with the skewness coefficients with only three exceptions are either greater than zero or less than zero. The kurtosis values show that the distribution is not in the form of a bell curve, but either leptokurtic $\geq$ 0.263 or platykurtic $\leq$ 0,263. Due to the large values of the standard error of the mean, generalisations to the population cannot be made.

Shaded values represent an indication of a relatively normal distribution of the following matric subjects:

- Southern Sotho;
- Tswana;
- Engineering Science; and
- Tsonga.

Table 10.2: Descriptive statistics of the DISCUSS (N=286).

	Minimum	Maximum	Mean	Standard error of the Mean	Standard Deviation	Variance	Skewness	Kurtosis
Internal D	11.00	95.00	49.7168	.8110	13.7146	188.091	.644	1.093
Internal I	6.00	95.00	44.0105	1.0512	17.7771	316.024	.412	-.018
Internal C	24.00	95.00	68.0000	.8785	14.8567	220.723	-.258	-.742
Internal S	23.00	95.00	61.1853	1.0558	17.8549	318.797	.084	-.806
External D	5.00	83.00	39.9021	.8619	14.5765	212.475	.364	.223
External I	10.00	90.00	41.5979	1.0942	18.5047	342.424	.408	-.596
External S	18.00	90.00	51.2308	.8117	13.7270	188.431	.045	-.062
External C	5.00	91.00	58.9650	1.0721	18.1303	328.708	-.283	-.766
Stress	1.00	4.00	1.9720	3.602E-02	.6092	.371	.576	1.693

Table 10.2 indicates that the distribution of the DISCUSS is skewed with the skewness coefficients either greater than zero or less than zero. The kurtosis values show that the distribution is not in the form of a bell curve, but either leptokurtic $\geq$ 0.263 or platykurtic $\leq$ 0,263.

Table 10.3: Descriptive statistics of the Myers-Briggs and Nowicki-Strickland & Lefcourt I/E Scales (N=286).

	Minimum	Maximum	Mean	Standard error of the Mean	Standard Deviation	Variance	Skewness	Kurtosis
Myer E	1.00	10.00	5.9476	.1119	1.8920	3.580	-.102	-.383
Myer I	.00	12.00	4.0839	.1149	1.9430	3.775	.289	.324
Myer S	3.00	19.00	12.0804	.1617	2.7345	7.478	-.343	.450
Myer N	.00	17.00	7.9056	.1636	2.7673	7.658	.267	.528
Myer T	.00	18.00	9.8986	.1902	3.2173	10.351	-.145	.198
Myer F	2.00	20.00	10.0979	.1918	3.2429	10.517	.139	.171
Myer J	2.00	19.00	13.6888	.1804	3.0501	9.303	-.705	.420
Myer P	.00	15.00	6.2413	.1766	2.9867	8.921	.570	-.004
Rotter	12.00	65.00	27.2448	.3306	5.5910	31.259	1.186	8.180

Table 10.4: Descriptive statistics of the Technikon major subjects (N=286).

	Minimum	Maximum	Mean	Standard error of the Mean	Standard Deviation	Variance	Skewness	Kurtosis
MVI	5.00	75.00	52.6557	1.7421	13.6062	185.130	-1.131	2.972
PIW	.00	78.00	48.7719	2.6380	19.9168	396.679	-1.710	2.071
MED	.00	57.00	27.5000	15.8981	31.7962	1011.000	.014	-5.921
Pers Man	.00	76.00	49.0178	1.1238	16.8576	284.178	-1.914	3.483
Bus Eco	31.00	83.00	52.0343	.8438	11.1618	124.585	.255	-.390
Bus Admin	42.00	88.00	63.7500	1.4386	9.9670	99.340	.378	.212
Average (IE)	11	69	50.78	1.78	13.47	181.366	-1.360	1.293
AVG PM	17	78	51.71	.84	12.55	157.575	-.850	.760

As regards to Table 10.4 the distribution is skewed where the skewness coefficients are either greater than zero or less than zero. The kurtosis values show that the distribution is not in the form of a bell curve, but either leptokurtic $\geq$ 0.263 or platykurtic $\leq$ 0,263.

Table 10.5: Frequency distribution of the Industrial Engineering students (N=57).

	Frequency	Percentage	Valid percentage	Cumulative percentage
Fail	9	3.1	15.8	15.8
Pass	48	16.8	84.2	100.0
Total	57	19.9	100.0	-

From Table 10.5 it is evident that 84.2% of the sample were successful in their studies.

Table 10.6: Frequency distribution of the Personnel Management students (N=224).

	Frequency	Percentage	Valid percentage	Cumulative percentage
Fail	32	11.2	14.3	14.3
Pass	192	67.1	85.7	100.0
Total	224	78.3	100.0	-

From Table 10.6 it is evident that 85.7% of the sample passed their major subject.

10.1.1 Comparative descriptives between Industrial Engineering and Personnel Management Students

Table 10.7: Processing summary (N=286).

MATRIC SUBJECT	VALID		MISSING	
	N	Percent	N	Percent
Afrikaans	273	95.5%	13	4.5%
English	283	99.0%	3	1.0%
Mathematics	141	49.3%	145	50.7%
Economics	76	26.6%	210	73.4%
Bus Economics	93	32.5%	193	67.5%
Typing	42	14.7%	244	85.3%
Biology	168	58.7%	118	41.3%
Science	92	32.2%	194	67.8%
Home Economics	14	4.9%	272	95.1%
Art	3	1.0%	283	99.0%
Computers	5	1.7%	281	98.3%
Geography	82	28.7%	204	71.3%
History	46	16.1%	240	83.9%
Industrial Arts	7	2.4%	279	97.6%
S-Sotho	8	2.8%	278	97.2%
Swazi	8	2.8%	278	97.2%
Agriculture	23	8.0%	263	92.0%
Northern Sotho	66	23.1%	220	76.9%
Accounting	91	31.8%	195	68.2%

Table 10.7: Processing summary (N=286).

MATRIC SUBJECT	VALID		MISSING	
	N	Percent	N	Percent
Technology	3	1.0%	283	99.0%
Tswana	63	22.0%	223	78.0%
Biblical Studies	43	15.0%	243	85.0%
German	2	0.7%	284	99.3%
Law	2	0.7%	284	99.3%
Woodwork	5	1.7%	281	98.3%
Fitting & Turn	1	0.3%	285	99.7%
Eng Science	3	1.0%	283	99.0%
Motor Eng	2	0.7%	284	99.3%
Zulu	25	8.7%	261	91.3%
Xhosa	7	2.4%	279	97.6%
Electrical Works	2	0.7%	284	99.3%
Ind Electricity	2	0.7%	284	99.3%
Electrical Technology	1	0.3%	285	99.7%
Tsonga	10	3.5%	276	96.5%

Table 10.8: Comparative Afrikaans matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Afrikaans	A	1	3	4
	B	0	7	7
	C	14	47	61
	D	21	67	88
	E	15	58	73
	F	5	35	40
Total		56	217	273

It is evident from Table 10.8 that 217 Personnel Management students and 56 Industrial Engineering students had Afrikaans as a matric subject. 64.2% of the Industrial Engineering students and 57.1% of the Personnel Management students had obtained above 50% in Afrikaans.

Table 10.9: Comparative English matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
English	A	0	1	1
	B	2	7	9
	C	13	48	61
	D	23	96	119
	E	21	59	80
	F	2	11	13
Total		61	222	283

From Table 10.9 it is clear that 61 Industrial Engineering students and 222 Personnel Management students had English as matric subject. 62.2% of the Industrial Engineering students and 68.5% of Personnel Management students obtained 50% or more in English.

Table 10.10: Comparative Mathematics matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Mathematics	A	3	1	4
	B	7	4	11
	C	10	8	18
	D	26	16	42
	E	12	29	41
	F	2	21	23
	G	0	1	1
	H	0	1	1
Total		60	81	141

It is evident from Table 10.10 that 81 Personnel Management students and 60 Industrial Engineering students had Mathematics as matric subject and 76.7% of the Industrial Engineering students and 35.8% of the Personnel Management students obtained above 50% in Mathematics.

Table 10.11: Comparative Economics matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Economics	A	0	4	4
	C	0	13	13
	D	0	21	21
	E	2	25	27
	F	0	11	11
Total		2	74	76

From Table 10.11 it is clear that 2 Industrial Engineering students and 74 Personnel Management students had Economics as a matric subject. None of the Industrial Engineering students and 51.4% of Personnel Management students obtained 50% or more in Economics.

Table 10.12: Comparative Business Economics matric marks for Industrial Engineering and Personnel Management students (N=268).

	Symbol	Industrial Engineering	Personnel Management	Total
Bus Economics	A	0	1	1
	B	1	2	3
	C	0	15	15
	D	1	21	22
	E	0	31	31
	F	0	21	21
Total		2	91	93

It is evident from Table 10.12 that 91 Personnel Management students and only 2 Industrial Engineering students had Business Economics as a matric subject. Both the Industrial Engineering students and 42.9% of the Personnel Management students obtained above 50% in Business Economics.

Table 10.13: Comparative Typing matric marks for Personnel Management students (N=286).

	Symbol	Personnel Management	Total
Typing	A	11	11
	B	9	9
	C	12	12
	D	5	5
	E	4	4
	F	1	1
Total		42	42

Table 10.13 indicates that no Industrial Engineering students and 42 Personnel Management students had Typing as a matric subject. 88.0% of Personnel Management students obtained 50% or more in Typing.

Table 10.14: Comparative Biology matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Biology	A	0	1	1
	B	1	5	6
	C	4	10	14
	D	11	22	33
	E	26	52	78
	F	4	32	36
Total		46	122	168

It is evident from Table 10.14 that 122 Personnel Management students and 46 Industrial Engineering students had Biology as a matric subject. 34.8% of the Industrial Engineering students and 31.1% of the Personnel Management students obtained above 50% in Biology.

Table 10.15: Comparative Science matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Science	B	1	2	3
	C	9	4	13
	D	16	6	22
	E	23	13	36
	F	7	11	18
Total		56	36	92

Table 10.15 indicates that 56 Industrial Engineering students and 36 Personnel Management students had Science as a matric subject. 46.4% of the Industrial Engineering and 33.3% of Personnel Management students obtained 50% or more in Science.

Table 10.16: Comparative Home Economics matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Home Economics	A	0	2	2
	C	0	4	4
	D	0	5	5
	E	1	2	3
Total		1	13	14

It is evident from Table 10.16 that 13 Personnel Management students and only one Industrial Engineering student had Home Economics as a matric subject and 84.6% of the Personnel Management students had obtained above 50% in Home Economics.

Table 10.17: Art matric marks for Personnel Management students (N=286).

	Symbol	Personnel Management	Total
Art	B	1	1
	E	2	2
Total		3	3

Table 10.17 indicates that no Industrial Engineering students and only 3 Personnel Management students had Art as a matric subject.

Table 10.18: Comparative Computer Science matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Computer Science	D	1	0	1
	E	3	1	4
Total		4	1	5

From Table 10.18 it is evident that 4 Industrial Engineering and only one Personnel Management student had Computer Science as a matric subject.

Table 10.19: Comparative Geography matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Geography	A	0	1	1
	B	2	1	3
	C	5	5	10
	D	5	13	18
	E	7	32	39
	F	1	10	11
TOTAL		20	62	82

It is evident from Table 10.19 that 62 Personnel Management students and 20 Industrial Engineering student had Geography as matric subject. 32.3% of the

Personnel Management and 60.0% of the Industrial Engineering students had achieved above 50% in Geography.

Table 10.20: Comparative History matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
History	B	0	1	1
	C	1	5	6
	D	0	15	15
	E	0	17	17
	F	0	7	7
TOTAL		1	45	46

Table 10.20 indicates that only one Industrial Engineering student and 45 Personnel Management students had History as a matric subject. 46.7% of the Personnel Management students obtained 50% or more in History.

Table 10.21: Industrial Arts matric marks for Industrial Engineering students (N=286).

	Symbol	Industrial Engineering	Total
Industrial Arts	C	1	1
	D	3	3
	E	3	3
TOTAL		7	7

No Personnel Management students and 7 Industrial Engineering students had Industrial Arts as a matric subject. 4 of the 7 obtained more than 50% for the subject.

Table 10.22: Comparative Southern Sotho matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
S- Sotho	B	1	0	1
	C	0	3	3
	D	0	3	3
	E	0	1	1
TOTAL		1	7	8

Table 10.22 indicates that only one Industrial Engineering student and 7 Personnel Management students had Southern Sotho as a matric subject. Six of the Personnel Management students obtained 50% or more for this subject.

Table 10.23: Comparative Swazi matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Swazi	B	0	1	1
	C	0	1	1
	D	4	2	6
TOTAL		4	4	8

Swazi as a matric subject was taken by 4 Industrial Engineering and 4 Personnel Management students. All obtained 50% or more in this subject.

Table 10.24: Comparative Agriculture matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Agriculture	A	0	1	1
	B	0	2	2
	C	1	3	4
	D	0	6	6
	E	0	4	4
	F	1	5	6
TOTAL		2	21	23

Only 2 Industrial Engineering students and 21 Personnel Management students had Agriculture as a matric subject. 57.1% of the Personnel Management students obtained 50% or more in this subject.

Table 10.25: Comparative Northern Sotho matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Northern Sotho	A	1	1	2
	B	0	5	5
	C	2	17	19
	D	7	20	27
	E	0	13	13
Total		10	56	66

It is evident from Table 10.25 that 10 Industrial Engineering students and 56 Personnel Management students had Northern Sotho as a matric subject. 9 of the Industrial Engineering and 78.6% of the Personnel Management students obtained 50% or more in this subject.

Table 10.26: Comparative Accounting matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Accounting	A	1	1	2
	B	2	2	4
	C	2	13	15
	D	1	15	16
	E	1	32	33
	F	0	21	21
TOTAL		7	84	91

Table 10.26 indicates that 7 Industrial engineering and 84 Personnel Management students had Accounting as a matric subject. All the Industrial Engineering and

36.9% of the Personnel Management students obtained 50% or more for this subject.

Table 10.27: Comparative Technology matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Technology	D	0	1	1
	E	2	0	2
TOTAL		2	1	3

It is clear from Table 10.27 that 2 Industrial Engineering students and one Personnel Management student had Technology as a matric subject.

Table 10.28: Comparative Tswana matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
TSWANA	B	1	0	1
	C	7	13	20
	D	6	24	30
	E	3	9	12
TOTAL		17	46	63

Table 10.28 indicates that 17 Industrial engineering and 46 Personnel Management students had Tswana as a matric subject. 82.4% of the Industrial Engineering and 80.4% of the Personnel Management students obtained 50% or more in this subject.

Table 10.29: Comparative Biblical Studies matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Biblical Studies	A	0	2	2
	B	1	1	2
	C	1	8	9
	D	0	12	12
	E	0	15	15
	F	0	3	3
TOTAL		2	41	43

From Table 10.28 it is clear that only 2 Industrial Engineering and 41 Personnel Management students had Biblical Studies as a matric subject. Both the Industrial Engineering students as well as 56.1% of the Personnel Management students obtained 50% or more in this subject.

Table 10.30: Comparative German matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
German	C	0	1	1
	E	1	0	1
TOTAL		1	1	2

Only one student from Industrial Engineering and one student from Personnel Management had German as a matric subject.

Table 10.31: Comparative Computer Science matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Computers	A	1	0	1
	D	0	1	1
Total		1	1	2

Table 10.31 indicates that one student from Industrial Engineering and one student from Personnel Management had Computer Science as a matric subject.

Table 10.32: Comparative Woodwork matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Woodwork	B	1	0	1
	C	0	1	1
	D	1	2	3
TOTAL		2	3	5

Two Industrial Engineering and 3 Personnel Management students took the matric subject, Woodwork.

Table 10.33: Fitting and Turning matric marks for Industrial Engineering students (N=286).

	Symbol	Industrial Engineering	Total
Fitting and Turning	B	1	1
TOTAL		1	1

One Industrial Engineering student and no Personnel Management student had the matric subject Fitting and Turning.

Table 10.34: Comparative Engineering Science matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Total
Eng Science	C	1	1
	D	1	1
	E	1	1
Total		3	3

Table 10.34 indicates that 3 Industrial Engineering and no Personnel Management students had Engineering Science as a matric subject.

Table 10.35: Motor Engineering matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Total
Motor Engineering	D	1	1
	E	1	1
Total		2	2

It is evident from table 10.35 that 2 Industrial Engineering and no Personnel Management students had Motor Engineering as a matric subject.

Table 10.36: Comparative Zulu matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Zulu	C	1	3	4
	D	2	10	12
	E	0	9	9
TOTAL		2	22	25

Table 10.36 indicates that 2 Industrial Engineering and 22 Personnel Management students had Zulu as a matric subject. Both the Industrial Engineering, as well as 59.0% of the Personnel Management students obtained 50% or more in this subject.

Table 10.37: Comparative Xhosa matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Xhosa	C	1	0	1
	D	2	2	4
	E	0	2	2
TOTAL		3	4	7

It is evident from Table 10.37 that 3 Industrial Engineering, and 4 Personnel Management students had Xhosa as a matric subject. All the Industrial

Engineering and 50% of the Personnel Management students obtained achieved 50% or more in this subject.

Table 10.38: Electrical Work matric marks for Industrial Engineering students (N=286).

	Symbol	Industrial Engineering	Total
Electrical Work	D	1	1
	E	1	1
TOTAL		2	2

Table 10.38 indicates that 2 Industrial Engineering and no Personnel Management students had Electrical Work as a matric subject.

Table 10.39 : Industrial Electricity matric marks for Industrial Engineering students (N=286).

	Symbol	Industrial Engineering	Total
Industrial Electricity	D	1	1
	E	1	1
TOTAL		2	2

It is evident from Table 10.39 that 2 Industrial Engineering and no Personnel Management students had Industrial Electricity as a matric subject.

Table 10.40: Electric Technology matric marks for Industrial Engineering students (N=286).

	Symbol	Industrial Engineering	Total
Electric Technology	E	1	1
TOTAL		1	1

Table 10.40 indicates that only one Industrial Engineering and no Personnel Management students had Electric Technology as a matric subject.

Table 10.41: Comparative Tsonga matric marks for Industrial Engineering and Personnel Management students (N=286).

	Symbol	Industrial Engineering	Personnel Management	Total
Tsonga	C	1	4	5
	D	0	5	5
TOTAL		1	9	10

1 Industrial Engineering and 9 Personnel Management students took Tsonga as a matric subject. All obtained 50% or more in this subject.

Table 10.42: Comparative descriptive statistics of Industrial Engineering and Personnel Management students (N=286).

		N	MEAN	STANDARD DEVIATION	STANDARD ERROR OF THE MEAN
Inter D	Industrial Eng	61	50.7541	15.0849	1.9314
	Personnel Man	225	49.4356	13.3412	.8894
Inter I	Industrial Eng	61	35.1803	14.1191	1.8078
	Personnel Man	225	46.4044	17.9359	1.1957
Inter S	Industrial Eng	61	63.4262	17.6441	2.2591
	Personnel Man	225	60.5778	17.9021	1.1935
Inter C	Industrial Eng	61	72.6230	14.9456	1.9136
	Personnel Man	225	66.7467	14.6151	.9743
Ext D	Industrial Eng	61	41.8361	15.8978	2.0355
	Personnel Man	225	39.3778	14.1895	.9460
Ext I	Industrial Eng	61	40.5574	17.9662	2.3003
	Personnel Man	225	41.8800	18.6772	1.2451
Ext S	Industrial Eng	61	47.7049	13.3658	1.7113
	Personnel Man	225	52.1867	13.6963	.9131
Ext C	Industrial Eng	61	62.9016	17.0799	2.1869
	Personnel Man	225	57.8978	18.2953	1.2197
Stress	Industrial Eng	61	1.9180	.6402	8.197E-02
	Personnel Man	225	1.9867	.6012	4.008E-02
Myer E	Industrial Eng	61	6.1311	2.0855	.2670
	Personnel Man	225	5.8978	1.8379	.1225
Myer I	Industrial Eng	61	3.8689	2.0855	.2670
	Personnel Man	225	4.1422	1.9033	.1269
Myer S	Industrial Eng	61	12.6066	2.4582	.3147
	Personnel Man	225	11.9378	2.7928	.1862
Myer N	Industrial Eng	61	7.4098	2.4588	.3148
	Personnel Man	225	8.0400	2.8352	.1890
Myer T	Industrial Eng	61	10.9508	2.9801	.3816
	Personnel Man	225	9.6133	3.2261	.2151
Myer F	Industrial Eng	61	9.0492	2.9801	.3816
	Personnel Man	225	10.3822	3.2590	.2173
Myer J	Industrial Eng	61	14.9344	2.7072	.3466
	Personnel Man	225	13.3511	3.0555	.2037

Table 10.42: (continued).

		N	MEAN	STANDARD DEVIATION	STANDARD ERROR OF THE MEAN
Myer P	Industrial Eng	61	5.0656	2.7072	.3466
	Personnel Man	225	6.5600	2.9847	.1990
Rotter	Industrial Eng	61	28.4918	4.5520	.5828
	Personnel Man	225	26.9067	5.8037	.3869

10.2 Multiple Regression Analysis

By means of multiple regression analysis the influence of two or more variables on the dependent variable can be determined. This analysis the influence of a variety of factors such as the factors of the Myers-Briggs on academic performance, can be determined. The calculation of the relative weight of each of the predictors in the regression model relies on both the single correlation between predictor and the criterion and on the inter-correlations between predictors (Coakes and Steed, 1996:129).

10.2.1 Matric Subjects

Description of matric subjects and Technikon subjects are presented in Tables 10.43 and 10.44 The data of the sample regarding matric subjects and Technikon major subjects were gathered from the Technikon's information system. All 35 possible matric subjects were included in the sample.

The major subjects for the Industrial Engineering students are:

- Mechanical Manufacturing Engineering (MME);
- Production Engineering (PE); and
- Mechanical Engineering Design (MED).

The major subjects for the Personnel Management students are:

- Personnel Management (PM);
- Business Economics (Bus Eco); and
- Business Administration (Bus Admin).