CHAPTER 5

RESULTS OF THE INVESTIGATION

5.1   INTRODUCTION

The data gathered from the empirical investigation was carefully scrutinised for obvious flaws like omission of items, specific patterns of answering and marking more than one score per item. Attention was also paid to written comments by adolescents. Hereafter the following steps were conducted to analyse and interpret the results:

- An item analysis of all the items for each of the six dimensions and for the total self-evaluation score
- Determining the reliability of the instrument
- Determining the validity of the instrument
- Determining the norms of the instrument
- Testing of the hypothesis

5.2   ITEM ANALYSIS OF THE SELF-EVALUATION QUESTIONNAIRE (SEQ)

The self-evaluation questionnaire consists of six sections, namely the physical self, social self, academic self, family self, value self and psychology self. An item analysis was done for each section (ten items each) as well as for the whole questionnaire (60 items in all) in order to establish what the contribution each of the items made to its particular section, and to the total score of the questionnaire.

The first aspect to be taken into consideration when doing an item analysis, is whether the item-total correlation is low or negative. If it is, it means that an item has been omitted.

The second aspect to be taken into consideration is the Alpha-reliability coefficient. The reliability coefficient was calculated for each of the sections of the questionnaire as well as for the total

questionnaire, in the event that all items are retained. The reliability coefficient is also calculated should specific items be omitted. An item will only be omitted if it results in a significant increase in the reliability of that particular section.

Based on the item-total correlation and the reliability coefficient, it is then decided whether a specific item must be retained or be omitted. The following tables, namely table 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 and 5.7, indicate that all items have showed a positive correlation with the total. They also indicate that the reliability coefficient of the particular section and of the total questionnaire is not significantly higher if any item has been left out. Therefore all items of the particular sections have been retained.

TABLE 5.1: ITEM ANALYSIS OF THE DIMENSION OF PHYSICAL SELF

No of subjects	:	263
No of items	:	10
Alpha-reliability coefficient	:	0,754

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED
6	0,237	0,757
7	0,378	0,739
17	0,224	0,769
27	0,527	0,718
37	0,479	0.725
38	0,294	0,753
49	0,526	0,722
51	0,654	0,703
53	0,445	0,730
59	0,542	0,719

TABLE 5.2: ITEM ANALYSIS OF THE DIMENSION OF SOCIAL SELF

No of subjects	:	263
No of items	:	10
Alpha-reliability coefficient	:	0,674

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED
4	0,362	0,645
9	0,190	0,682
15	0,338	0,650
19	0,407	0,635
21	0,374	0,647
29	0,442	0,631
36	0,297	0,660
41	0,320	0,635
47	0,370	0,645
55	0,322	0,653

TABLE 5.3: ITEM ANALYSIS OF THE DIMENSION OF ACADEMIC SELF

No of subjects	:	263
No of items	:	10
Alpha-reliability coefficient	:	0,724

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED

5	0,409	0,700
8	0,537	0,676
16	0,341	0,709
18	0,316	0,713
26	0,390	0,703
28	0,372	0,705
39	0,434	0,694
40	0,295	0,723
48	0,467	0,687
54	0,339	0,710

TABLE 5.4: ITEM ANALYSIS OF THE DIMENSION OF FAMILY SELF

No of subjects : 263
No of items : 10
Alpha-reliability coefficient : 0,840

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED
2	0,480	0,831
11	0,437	0,836
13	0,474	0,831
23	0,486	0,831
25	0,697	0,812
31	0,573	0,822
34	0,559	0,823
43	0,662	0,814
45	0,421	0,836
57	0,609	0,819

TABLE 5.5: ITEM ANALYSIS OF THE DIMENSION OF VALUE SELF

No of subjects : 263
No of items : 10
Alpha-reliability coefficient : 0,702

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED
3	0,338	0,683
10	0,411	0,670
14	0,429	0,666
20	0,278	0,692
24	0,264	0,700
30	0,401	0,673
35	0,370	0,677
42	0,363	0,679
46	0,342	0,682
56	0,450	0,677

TABLE 5.6: ITEM ANALYSIS OF THE DIMENSION OF PSYCHOLOGICAL SELF

No of subjects   :   263
No of items   :   10
Alpha-reliability coefficient   :   0,729

ITEM	ITEM CORRELATION WITH TOTAL	ALPHA IF ITEM IS DELETED
1	0,359	0,712
12	0,355	0,712
22	0,387	0,708
32	0,394	0,709
33	0,307	0,720
44	0,343	0,714
50	0,506	0,688
52	0,484	0,694
58	0,447	0,698
60	0,340	0,716

TABLE 5.7: ITEM ANALYSIS OF THE TOTAL SELF-EVALUATION

QUESTIONNAIRE (SEQ)

No of subjects	:	263
No of items	:	60
Alpha-reliability coefficient	:	0,932

ITEM	ITEM CORRELATION WITH TOTAL SCORE	ALPHA-RELIABILITY IF ITEM IS LEFT OUT
1	0,431	0,931
2	0,449	0,931
3	0,361	0,932
4	0,362	0,932
5	0,429	0,931
6	0,328	0,932
7	0,470	0,931
8	0,519	0,931
9	0,258	0,933
10	0,355	0,932
11	0,414	0,931
12	0,403	0,931
13	0,32	0,931

14	0,344	0,932
15	0,348	0,932
16	0,312	0,932
17	0,219	0,933
18	0,348	0,932
19	0,383	0,932
20	0,420	0,931
21	0,435	0,931
22	0,427	0,931
23	0,468	0,931
24	0,302	0,932
25	0,534	0,931
26	0,437	0,931
27	0,510	0,931
28	0,596	0,931
29	0,452	0,931
30	0,484	0,931
31	0,506	0,931
32	0,418	0,932
33	0,356	0,932
34	0,570	0,930
35	0,397	0,932
36	0,344	0,932
37	0,487	0,931
38	0,343	0,932
39	0,397	0,932
40	0,299	0,933
41	0,479	0,931
42	0,312	0,932
43	0,579	0,931
44	0,410	0,931
45	0,509	0,931
46	0,381	0,932
47	0,446	0,931
48	0,515	0,931
49	0,555	0,931
50	0,494	0,931
51	0,620	0,930
52	0,491	0,931
53	0,441	0,031
54	0,384	0,932
55	0,407	0,932
56	0,520	0,931
57	0,489	0,931
58	0,524	0,931
59	0,558	0,931

5.3   RELIABILITY OF THE INSTRUMENT

According to Mulder (1989:209), no standardised test is complete unless there is an indication of its reliability. Schumacher & McMillan (1993:227) define reliability as referring to the consistency of measurement; the extent to which results are similar across different forms of the same instrument or occasions of data collecting. This is done to reduce the influence of chance or other variables unrelated to the purpose of the measure. Guy, Edgley, Arafat and Allen (1987:169) declare that a measuring device is reliable if it produces the same object, assuming the object itself is stable. Reliability therefore refers to repeatability of a testee's score in the same test on different occasions, or in different tests with equivalent items, or under different examination conditions. In other words, the concept of reliability has to do with error of measurement which leads to fluctuations in the testee's score. A test must be consistent in what it measures, given standard conditions of measurement. As with any measuring instrument, an inconsistent test is not likely to be of much use.

The reliability coefficient is a correlation statistic comparing two sets of scores obtained by the same individual. The scale is from zero (0,00) to one (1,00). If the coefficient is high, the instrument has little error and is highly reliable. An acceptable range of reliability coefficient for most instruments is between 0,70 and 0,90 (Schumacher & McMillan 1993:227). The closer the reliability of a measuring instrument is to one (1), the smaller the difference is between the variance of the actual score and the observed score. Therefore, when an instrument is developed, an attempt is made to obtain a reliability coefficient as close to one as possible.

Concerning the instrument being used in this research, reliability was arrived at by calculating the alpha coefficient for each of the six sections as well as for the total questionnaire (60 items). As shown by table 5.8 below, the reliability coefficient for the whole questionnaire is 0,932. This value is very close to one (1) and therefore the questionnaire can be considered to be a reliable measuring instrument.

TABLE 5.8: RELIABILITY OF THE SELF-EVALUATION

QUESTIONNAIRE (SEQ)

DIMENSION	ALPHA-RELIABILITY COEFFICIENT	NUMBER OF ITEMS
PHYSICAL	0,754	10
SOCIAL	0,674	10
ACADEMIC	0,724	10
FAMILY	0,840	10
VALUE	0,702	10
PSYCHOLOGICAL	0,729	10
SEQ IN TOTALITY	0,932	60

5.4   VALIDITY OF THE INSTRUMENT

Validity refers to whether the items in a test do in fact test what they are supposed to test (Wiersma 1991:170; Pienaar 1998:277). Validity answers the question as to whether the instrument measures the characteristics, traits or whatever for which it has been designed. Mathe (1997:158) contends that a test is not valid per se but is only valid for a particular purpose and for a particular group. A measure is said to be valid if the true quantity and the measured quantity are one and the same. As in the case of reliability, no standardised measuring instrument is complete unless an explicit statement is made about its validity. Rambiyana (2000:86) suggests that a test can be reliable but not valid. This means that it can measure something consistently but will still not measure what it is intended to measure. He states that a measure cannot be valid unless it is reliable.

5.4.1   Construct validity

It often happens that a questionnaire consists of different subsections, measuring different constructs. The questionnaire used in this study is an example of such a situation since it measures physical self, social self, academic self, family self, value self and psychological self with regard to self-evaluation.

Although the test consists of different constructs, these constructs are related to one another and to the total construct of the test because they all deal with the self. One would therefore expect to find a significant positive correlation among the constructs (sections) and between each construct (section) and the construct measured by the questionnaire in total (self-evaluation). If such correlations exist, one can regard the questionnaire to be construct-valid. In order to determine construct validity, correlation coefficients were calculated between the six different constructs and between each construct and the total of the test. These correlation coefficients appear in table 5.9 below.

TABLE 5.9: CONSTRUCT VALIDITY

	CTOTAL	CPHYS	CSOC	CACAD	CFAM	CVAL	CPSY
CTOTAL		0,83	0,82	0,82	0,77	0,77	0,85
CPHYS			0,59	0,57	0,63	0,56	0,65
CSOC				0,65	0,54	0,58	0,63
CACAD					0,49	0,58	0,72
CFAM						0,54	0,59
CVAL							0,53
CPSY							

$p < 0,01$ for all correlation coefficients.

All correlations seem to be highly positive correlations, significant on the 1 percent level. The different constructs therefore strongly relate to one another as expected and consequently the test may be considered construct-valid.

5.5   DETERMINING THE NORMS OF THE INSTRUMENT

A norm is an objective standard whereby the scores which a testee receives on a measuring instrument are interpreted (Pienaar 1998:79).

Stanines (standard scores divided into nine categories as in table 5.10) have been used to determine the norms. Norms are provided for the test so that a researcher administering the test to a group of testees at a later stage will be in a position to interpret the score obtained by each testee in terms of the results obtained by the standardisation group. The term "stanine" is an amalgamation of the two words "standard" and "nine", and it signifies that standard scores have been grouped into nine categories (Mulder 1989:201). To calculate the stanines for each of the dimensions of the SEQ, as well as for the total SEQ, the cumulative percentages for each of the sections and the total SEQ were obtained. The stanines obtained are set out in tables 5.10 to 5.17 below.

TABLE 5.10: LIMITS AND AREAS OF STANINES

STANINES	LIMITS			% OF AREA
9	+t	to	+1,75z	4
8	+t 1,75z	to	+1,25z	7
7	+t 1,25z	to	+0,75z	12
6	+t 0,75z	to	+0,25z	17
5	+t 0,25z	to	-0,25z	20
4	+t 0,25z	to	-0,75z	17
3	+t 0,75	to	-1,25z	12
2	+t 1,25z	to	-1,75z	7
1	+t 1,75z	to		4

Source: Mulder (1989:205).

TABLE 5.11: TRANSFORMATION OF RAW SCORES INTO STANINES
(PHYSICAL SELF)

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
18	1	0,4	
20	1	0,8	
25	1	1,1	
26	1	1,5	
28	1	1,9	1
29	2	2,7	
30	1	3,0	
31	1	3,4	
32	1	3,8	
34	1	4,2	
35	2	4,9	
37	3	6,1	
38	1	6,5	2
39	2	7,2	
40	2	8,0	
41	7	10,6	
42	3	11,8	
43	1	14,4	
44	5	16,3	3
45	4	17,9	
46	7	20,5	
47	7	23,2	
48	12	27,8	
49	17	34,2	4
50	21	42,2	
51	10	46,0	
52	15	51,7	5
53	14	57,0	
54	23	65,8	
55	23	74,5	6
56	16	80,6	
57	25	90,1	7
58	13	95,1	8
59	5	97,0	
60	8	100,0	9

TABLE 5.12: TRANSFORMATION OF RAW SCORES INTO STANINES
(SOCIAL SELF)

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
21	1	0,4	
23	1	0,8	
25	1	1,1	
26	2	1,9	1
27	1	2,3	
29	4	3,8	
30	1	4,2	
32	1	4,6	
33	5	6,5	
34	4	8,0	
35	2	8,7	
36	2	9,5	
37	7	12,2	2
38	9	15,6	
39	8	18,6	
40	7	21,3	
41	14	26,6	
42	9	30,0	
43	11	34,2	
44	8	37,3	
45	14	42,6	3
46	14	47,9	
47	12	52,5	
48	16	58,6	
49	19	65,8	4
50	15	71,5	
51	20	79,1	
52	10	82,9	5
53	12	87,5	
54	9	92,9	
55	3	92,0	6
56	8	95,1	
57	4	96,6	7
58	3	97,7	8
59	2	98,5	
60	4	100,0	9

**TABLE 5.13: TRANSFORMATION OF RAW SCORES INTO STANINES
(ACADEMIC SELF)**

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
23	2	0,8	
24	1	1,1	
29	1	1,5	1
30	3	2,7	
31	1	3,0	
32	3	4,2	
33	4	5,7	
34	3	6,8	
35	4	8,4	
36	9	11,8	
37	7	14,4	2
38	6	16,7	
39	10	20,5	
40	8	23,6	
41	8	26,6	
42	10	30,4	
43	11	34,6	
44	10	38,4	
45	6	40,7	3
46	16	46,8	
47	11	51,0	
48	15	56,7	
49	16	62,7	4
50	11	66,9	
51	11	71,1	
52	19	78,3	5
53	11	82,5	
54	13	87,5	
55	5	89,4	6
56	7	92,0	
57	5	93,9	7
58	8	97,0	8
59	1	97,3	
60	7	100,0	9

**TABLE 5.14: TRANSFORMATION OF RAW SCORES INTO STANINES
(FAMILY SELF)**

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
7	1	0,4	
14	1	0,8	
17	1	1,1	
18	1	1,5	
20	1	1,9	1
21	1	2,3	
22	2	3,0	
23	1	3,4	
24	2	4,2	
25	2	4,9	
26	1	5,3	
27	5	7,2	2
28	2	8.0	
29	6	10,3	
30	5	12,2	
31	5	14,1	3
32	8	17,1	
33	9	20,5	
34	15	26,2	4
35	12	30,8	
36	17	37,3	
37	18	44,1	
38	21	52,1	5
39	18	58,9	
40	29	70,0	6
41	36	83,7	7
42	43	100,0	8-9

TABLE 5.15: TRANSFORMATION OF RAW SCORES INTO STANINES
(VALUE SELF)

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
18	1	0,4	
20	1	0,8	
29	2	1,5	1
30	1	1,9	
32	1	2,3	
33	4	3,8	
34	2	4,6	
35	1	4,9	
36	2	5,7	
37	7	8,4	2
38	3	9,5	
39	5	11,4	
40	8	14,4	
41	4	16,0	
42	8	19,0	3
43	9	22,4	
44	8	25,5	
45	8	28,5	
46	14	33,8	4
47	13	38,8	
48	16	44,9	
49	15	50,6	5
50	19	57,8	
51	22	66,2	
52	18	73,0	6
53	10	76,8	
54	10	80,6	
55	9	84,0	7
56	11	88,2	
57	7	90,9	
58	8	93,9	8
59	10	97,7	
60	6	100,0	9

**TABLE 5.16: TRANSFORMATION OF RAW SCORES INTO STANINES
(PSYCHOLOGICAL SELF)**

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
23	1	0,4	
25	1	0,8	
26	1	1,1	
27	1	1,5	1
28	1	1,9	
29	1	2,3	
30	2	3,0	
31	2	3,8	
32	2	4,6	
33	5	6,5	
34	5	8,4	
35	6	10,6	2
36	2	11,4	
37	3	12,5	
38	8	15,6	
39	7	18,3	3
40	7	20,9	
41	12	25,5	
42	7	28,1	
43	7	30,8	4
44	13	35,7	
45	17	42,2	
46	14	47,5	
47	13	52,5	5
48	13	57,4	
49	11	61,6	
50	23	70,3	
51	15	76,0	6
52	11	80,2	
53	9	83,7	7
54	15	89,4	
55	9	92,8	
56	6	95,1	8
57	2	95,8	

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
58	2	97,7	
59	1	98,1	9
60	5	100,0	

**TABLE 5.17: TRANSFORMATION OF RAW SCORES INTO STANINES
(THE TOTAL SEQ)**

RAW SCORE	FREQUENCY	CUMULATIVE PERCENT	STANINE
128	1	0,4	1
163	1	0,8	
172	2	1,5	
185	1	1,9	
189	1	2,3	
193	1	2,7	
207	1	3,0	
212	1	3,4	
213	1	3,8	
218	1	4,2	
220	1	4,6	
222	1	4,9	
227	3	6,1	2
228	1	6,5	
230	1	6,8	
234	2	7,6	
235	1	8,0	
236	1	8,4	
237	1	8,7	
238	1	9,1	
241	1	9,5	
242	1	9,9	
243	1	10,3	
244	1	10,6	
246	1	11,0	

249	2	11,8	
250	1	12,2	
252	2	12,9	
253	1	13,3	
254	2	14,1	
255	2	14,8	
256	1	15,2	
257	2	16,0	3
258	1	16,3	
259	2	17,1	
260	1	17,5	
261	1	17,9	
262	5	19,8	
263	3	20,9	
264	4	22,4	
265	1	22,8	

266	2	23,6	
267	1	24,0	
268	1	24,3	
269	2	25,1	
270	2	25,9	
271	1	26,2	
272	1	26,6	
273	3	27,8	
274	3	28,9	
275	1	29,3	
276	4	30,8	4
277	4	32,3	
279	4	33,8	
281	4	35,4	
282	3	35,5	
283	2	37,3	
285	1	37,6	
287	3	38,8	
289	3	39,9	

290	4	41,4	
291	4	43,0	
292	2	43,7	
293	7	46,4	
294	5	48,3	
295	3	49,4	
296	2	50,2	
297	3	51,3	5
298	2	52,1	
299	4	53,6	
300	2	54,4	
301	5	56,3	
302	5	58,2	
303	1	58,6	
304	2	59,3	
305	4	60,8	
306	8	63,9	
307	4	65,4	
308	3	66,5	
309	4	68,1	
310	4	69,6	6
311	5	71,5	
312	4	73,0	
313	4	74,5	
314	3	75,7	
315	5	77,6	

317	2	78,3	
318	1	78,7	
319	5	80,6	
320	4	82,1	
321	4	83,7	
322	1	84,0	
323	2	84,8	7
324	2	85,6	
325	4	87,1	
326	2	87,8	
327	2	88,6	

328	3	89,7	
329	1	90,1	
330	1	90,5	
331	3	91,6	
334	1	92,0	8
335	5	93,9	
336	2	94,7	
337	2	95,4	
338	1	95,8	
339	3	97,0	
340	3	98,1	
349	1	98,5	
353	1	98,9	9
356	1	99,2	
360	2	100,0	

By dividing the categories up as in table 5.10 and then applying them to the six dimensions of the SEQ as well as to the total SEQ, it is possible to establish whether an individual's self-evaluation is below average or above average. As a general rule it is understood that the bottom three stanines (1, 2 and 3) as average and the top three stanines (7, 8 and 9) as above average (Mulder 1989:205). The classification of the scores is given in table 5.18 below.

TABLE 5.18: CLASSIFICATION OF THE SELF-EVALUATION (SELF-CONCEPT) SCORES INTO CATEGORIES

DIMENSION	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE
Physical self	10-41	42-55	56-60

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Social self	10-40	41-50	51-60
Academic self	10-40	41-51	52-60
Family self	10-33	34-40	41-60
Value self	10-43	44-53	54-60
Psychological self	10-40	41-51	52-60
Total Questionnaire	60-265	266-315	317-360

5.6 TESTING OF THE HYPOTHESIS

5.6.1 The physical self

With regard to the hypothesis as stated in chapter 1, the following null hypothesis was tested:

There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the physical self.

The following abbreviations are used in table 5.19 below.

PPHYS-Average scores given by parents evaluating the physical self of their adolescents.
TPHYS-Average scores given by teachers evaluating the physical self of their adolescents.
CPHYS-Average scores given by adolescents evaluating their physical self.

The average scores given by each of the three groups with regard to the physical self are shown in table 5.19 below.

TABLE 5.19: PHYSICAL SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CPHYS	124	48,30	8,15
PPHYS	124	42,09	7,27
TPHYS	124	43,05	8,82

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.20 below.

TABLE 5.20: THE PHYSICAL SELF-DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENT AND PARENT-ADOLESCENT

Evaluation of the adolescent's physical self	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	0,95	7,56	1,41	p>0,05
Teacher-adolescent	124	5,25	12,94	4,52	p<0,01
Parent-adolescent	124	6,21	12,14	5,69	p<0,01

According to the results in table 5.20 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. This means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same adolescent, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent-adolescent is significantly higher than the difference between the means of parents-teachers. This means that the adolescents evaluated their physical self as significantly higher than

what their teachers and parents did. In other words, the adolescents' opinions of their physical abilities and appearances , are significantly higher than the opinions of parents and teachers concerning the same abilities, appearances, and so on.

Where teachers and parents evaluated the same adolescents on a physical level, no significant difference was obtained. This means that teachers and parents are more in agreement concerning the physical self of a specific adolescent. For example, if an adolescent thinks he or she is more attractive than their peers, the parents and teachers of this adolescent will not necessarily agree and will probably regard this adolescent as not more attractive than his or her peers.

5.6.2   The social self

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

> There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the social self.

The following abbreviations are used in table 5.21 below.

PSOC-Average scores given by parents evaluating the social self of their adolescents.
TSOC-Average scores given by teachers evaluating the social self of their adolescents.
CSOC-Average scores given by adolescents evaluating their social self.

The average scores given by each of the three groups with regard to the social self are shown in table 5.21 below.

TABLE 5.21: SOCIAL SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CSOC	124	43,48	7,23
PSOC	124	40,87	6,52
TSOC	124	39,72	8,15

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.22 below.

TABLE 5.22: SOCIAL SELF: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, ADOLESCENT-CHILD AND PARENT-ADOESCENT

Evaluation of the adolescent's social self	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	1,15	7,47	1,71	p>0,05
Teacher-adolescent	124	3,76	11,24	3,72	p<0,01
Parent-adolescent	124	2,61	10,31	2,82	p<0,01

According to the results in table 5.22 the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. It means that where the teacher-adolescent and the parent-adolescent scores are compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same adolescents, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent-adolescent is significantly higher than the difference between the means of parents-teachers. This means that the adolescents evaluated their social self as significantly higher than what their teachers and parents did. In other words, the adolescents' opinions of their social relationships and relationships with friends, are significantly higher than the opinions of parents and teachers concerning the same social relationships, relationship with friends, and so on.

Where teachers and parents evaluated the same adolescents on a social level, no significant difference was obtained. This means that parents and teachers are more in agreement concerning the social self of a specific adolescent. For example, if an adolescent thinks he or she will be the first to be chosen in a team, the parents and teachers of this adolescent will not necessarily agree.

5.6.3 The academic self

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

> There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the academic self.

The following abbreviations are used in table 5.23 below:

PACAD-Average scores given by parents evaluating the academic self of their adolescents.
TACAD-Average scores given by teachers evaluating the academic self of their adolescents.
CACAD-Average scores given by adolescents evaluating their academic self.

The average scores given by each of the three groups with regard to the academic self are shown in table 5.23 below.

TABLE 5.23: ACADEMIC SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CACAD	124	43,48	8,13
PACAD	124	40,59	7,19
TACAD	124	41,10	9,07

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.24 below.

TABLE 5.24: THE ACADEMIC SELF: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENT AND PARENT-ADOLESCENT

Evaluation of the adolescent's academic self	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	0,52	7,39	0,78	p>0,05
Teacher-adolescent	124	2,74	13,08	2,33	p<0,05
Parent-adolescent	124	3,26	11,24	3,22	p<0,01

According to the results in table 5.24 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-learner scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. This means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With

regard to the scores given by teachers-parents to the same adolescents, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teachers-adolescents and parents-adolescents is significantly higher than the difference between the means of parents-teachers. This means that the adolescents evaluated their academic self as significantly higher than what their teachers and parents did. In other words, the adolescents' opinions of their academic abilities, faster understanding of school subjects than peers and reading faster, are significantly higher than the opinions of parents and teachers concerning the same academic abilities, understanding of school subjects, reading faster, and so on.

Where teachers and parents evaluated the same adolescents on an academic level, no significant difference was obtained. This means that parents and teachers are more in agreement concerning the academic self of a specific adolescent. For example, if an adolescent thinks that he or she is a fast reader, the parents and teachers of this adolescent will not necessarily agree and will probably regard this adolescent as an average or even poor reader.

5.6.4   The family self

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

> There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the family self.

The following abbreviations are used in table 5.25 below:

PFAM-Average scores given by parents evaluating the family self of their adolescents.
TFAM-Average scores given by teachers evaluating the family self of their adolescents.
CFAM-Average scores given by adolescents evaluating their family self.

The average scores given by each of the three groups with regard to the family self are shown in table 5.25 below.

TABLE 5.25: FAMILY SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CFAM	124	35,09	5,77
PFAM	124	29,92	5,74
TFAM	124	29,68	7,33

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.26 below.

TABLE 5.26: FAMILY SELF: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENTS AND PARENT-ADOLESCENTS

Evaluation of the adolescent's family self	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	0,23	6,29	0,41	p>0,05
Teacher-adolescent	124	5,41	9,43	6,39	p<0,01
Parent-adolescent	124	5,18	8,40	6,86	p<0,01

According to the results in table 5.26 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. It means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same children, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent- adolescent is significantly higher than the difference between the means of parents-teachers. This means that the adolescent evaluated their family self as significantly higher than what their teachers and parents did. In other words, the adolescents' opinions of their good relationship with family members and being on good terms with family members, are significantly higher than the opinions of parents and teachers concerning the same relationships with family members, being on good terms with family members, and so on.

Where teachers and parents evaluated the same adolescents regarding relationship with family members, no significant difference was obtained. This means that teachers and parents are more in agreement concerning the relationships with family members of a specific adolescent. For example, if an adolescent thinks that he/she is on good terms with his/her family members, the parents and teachers of this adolescent will not necessarily agree and will probably regard this adolescent as being not on good terms with his/her family members.

5.6.5   The value self

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

> There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the value self.

The following abbreviations are used in table 5.27 below:

PVAL-Average scores given by parents evaluating the value self of their adolescents.

TVAL-Average scores given by teachers evaluating the value self of their adolescents.

CVAL-Average scores given by adolescents evaluating their value self.

The average scores given by each of the three groups with regard to the value self are shown in table 5.27 below.

TABLE 5.27: VALUE SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CVAL	124	46,26	6,97
PVAL	124	41,44	6,53
TVAL	124	40,64	8,33

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.28 below.

TABLE 5.28: THE VALUE SELF: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION, AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENT AND PARENT-ADOLESCENT

Evaluation of the adolescent's value self	N	Difference between means	Std. Dev.	T-value	Prob>/T/

Teacher-parent	124	0,81	7,78	1,15	p>0,05
Teacher-adolescent	124	5,62	11,66	5,37	p<0,01
Parent-adolescent	124	4,81	10,16	5,28	p<0,01

According to the results in table 5.28 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. This means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same adolescent, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent-adolescent is significantly higher than the difference between the means of parents-teachers. This means that the adolescents evaluated their value self as significantly higher than what their teachers and parents did. In other words, the adolescents' opinions of their value self, their honesty and their truthfulness, are significantly higher than the opinions of parents and teachers concerning the same value self, their honesty and their truthfulness .

Where teachers and parents evaluated the same adolescents regarding value self, no significant difference was obtained. This means that teachers and parents are more in agreement concerning the value self of a specific adolescent. For example, if an adolescent thinks that he/she is a good person, better than his/her peers, the parents and teachers of this adolescent will not necessarily agree and will probably regard this adolescent as not better than his/her peers.

5.6.6   The psychological self

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

There will be no significant difference between the self-evaluation score of the adolescent and the self-evaluation scores given by parents and teachers with regard to the psychological self.

The following abbreviations are used in table 5.29 below:

PPSY-Average scores given by parents evaluating the psychological self of their adolescents.
TPSY-Average scores given by teachers evaluating the psychological self of their adolescents.
CPSY-Average scores given by adolescents evaluating their psychological self.

The average scores given by each of the three groups with regard to the psychological self are shown in table 5.29 below.

TABLE 5.29: PSYCHOLOGICAL SELF: AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CPSY	124	43,78	7,63
PPSY	124	40,81	7,39
TPSY	124	40,25	8,38

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance. The results appear in table 5.30 below.

TABLE 5.30: THE PSYCHOLOGICAL SELF: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENT AND PARENT-ADOLESCENT

Evaluation of the adolescent's psychological self	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	0,56	7,64	0,81	p>0,05
Teacher-adolescent	124	3,53	11,98	3,28	p<0,01
Parent-adolescent	124	2,98	11,60	2,86	p<0,01

According to the results in table 5.30 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. This means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same adolescents, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent-adolescent is significantly higher than the difference between the means of parents-teachers. This means that the adolescents evaluated their psychological self as significantly higher than what their teachers and parents did. In other words, the adolescents' opinions of their leadership abilities, their being successful in life and their quick decision-making abilities, are significantly higher than the opinions of parents and teachers concerning the same leadership abilities, their being successful in life and their quick decision-making abilities.

Where teachers and parents evaluated the same adolescents regarding psychological self, no significant difference was obtained. This means that teachers and parents are more in agreement concerning the psychological self of a specific adolescent. For example, if an adolescent thinks he/she is good at decision-making, the parents and teachers of this adolescent will not necessarily agree and will probably regard this adolescent as not better than his/her peers on the aspect of decision-making.

5.6.7   The total self-evaluation questionnaire (SEQ)

With regard to the hypothesis as stated in chapter 4, the following null hypothesis was tested:

There will be no significant difference between the self-evaluation scores of the adolescents and the self-evaluation scores given by parents and teachers with regard to the whole/total self-evaluation questionnaire.

The following abbreviations are used in table 5.31 below:

PTOTAL-Average scores given by parents with regard to the self-evaluation of their adolescents.
TTOTAL-Average scores given by teachers with regard to the self-evaluation of their adolescents.
CTOTAL-Average scores given by adolescents evaluating their self.

The average scores given by each of the three groups with regard to self-evaluation are shown in table 5.31 below.

TABLE 5.31: THE TOTAL QUESTIONNAIRE (SEQ): AVERAGE SCORES GIVEN BY ADOLESCENTS, PARENTS AND TEACHERS

Variable	N	Mean	Std. Dev.
CTOTAL	124	275,81	38,06
PTOTAL	124	248,94	37,92
TTOTAL	124	248,94	45,29

To determine whether the averages differ significantly, a t-test for dependent variables was used in each instance .The results appear in table 5.32 below.

TABLE 5.32: THE TOTAL QUESTIONNAIRE: DIFFERENCES BETWEEN THE MEANS, STANDARD DEVIATION AND t-TESTS FOR TEACHER-PARENT, TEACHER-ADOLESCENT AND PARENT-ADOLESCENT

Evaluation of the adolescent's self-evaluation	N	Difference between means	Std. Dev.	T-value	Prob>/T/
Teacher-parent	124	0,88	38,11	0,26	p>0,05
Teacher-adolescent	124	27,75	63,67	4,85	p<0,01
Parent-adolescent	124	26,87	58,57	5,11	p<0,01

According to the results in table 5.32 above, the null hypothesis can be rejected with regard to teacher-adolescent scores and with regard to parent-adolescent scores. With regard to teacher-parent scores, the null hypothesis cannot be rejected. It means that where the teacher-adolescent and the parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers-parents to the same adolescents, however, no significant difference in their average scores could be obtained.

In both instances where the null hypothesis is rejected, the difference between the means of the teacher-adolescent and parent-adolescent is significantly higher than the difference between the means of parents-teachers.

Where teachers and parents evaluated the same adolescent, no significant difference was obtained, which means that parents and teachers see eye to eye or are more in agreement concerning the total evaluation of adolescents. The adolescents' opinions about themselves are not the same as the opinions of parents and teachers about the same adolescents. The adolescents' opinions about themselves are significantly higher than the opinions of parents and teachers concerning the same adolescents.

5.7   CONCLUSION.

In all instances stated above, the null hypothesis can be rejected with regard to teacher -adolescent scores and with regard to parent-adolescent scores. Except in one instance where the null hypothesis can be rejected at the 5 percent level of significance, in all other instances the null hypothesis can be rejected at the 1 percent level of significance.

Concerning the teacher-parent scores, the null hypothesis cannot be rejected. This has been the case with regard to all dimensions and with regard to the total questionnaire. In all instances where the teacher-adolescent and parent-adolescent scores were compared, a significant difference between their averages was obtained. With regard to the scores given by teachers and parents to the same adolescents, no significant difference in their average scores could be obtained, either for the different dimensions or for the total questionnaire.

In all instances where the null hypothesis was rejected, the mean of adolescent was significantly higher than that of teachers and that of parents. The means of parents and teachers were almost the same for family self, psychological self and the total questionnaire. We can therefore state that the adolescents rated themselves high, higher than the teachers and parents did and we can therefore assume that they (the adolescents) were subjective in their self-valuation.