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# Career Perceptions and Visions of Boys and Girls in Secondary Schools in Zimbabwe: Some Implications for Teachers and Parents

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## Abstract

*The study investigated the career perceptions and visions of boys and girls in secondary schools. Subjects (N=120) were students enrolled in Forms 1 to 6 who were drawn from secondary schools in Manicaland and Masvingo educational regions. An open-ended questionnaire was used to generate data. The Pearson Product Moment Correlation ( $r$ ) was used to analyse the data. Results showed that both boys and girls had similar perceptions about male and female jobs. It was also indicated that relatives were the chief influences in career choice among boys and girls. Male students had higher educational aspirations than females. The study recommended the education of relatives especially parents on careers so as to avoid negative influences on career choice. A vigorous offering of guidance and counseling in secondary schools was also recommended.*

## Introduction

Gender stereotyping can be defined differently in different settings (e.g. in the home, at school and at work places). The society perpetuates certain behaviours among males and females through the way they are brought up. It is believed that men are born with certain natural abilities, aptitudes or talents that are different from those of women. Similarly, boys are expected to have a flair for physically demanding tasks. They are supposed to be mechanically minded, emotionally robust, daring, virile and should generally be interested in outdoor life (*The Herald* 2001). Some of these expectations translate into the way they think and behave. Similarly, girls are expected to be good at various forms of handwork and should generally enjoy

staying and working indoors (Ministry of Education, Sport and Culture and UNICEF 2000). Primary school textbooks in Zimbabwe and elsewhere contain pictures which show girls and women working in the kitchen, sweeping, and fetching water and doing what have traditionally been considered women's jobs, thus, implying that women occupy lower status jobs than men.

There has been perpetuated disparities between males and females in both secondary and tertiary education in Zimbabwe. Women continue to drop out, perform more poorly, and have less access to education than men (Gordon 1994, Dorsey, Gaidzanwa and Mupawaenda 1989). This study also found much congruence among the attitudes of the parents, teachers, boys and girls about educational aspirations and careers for boys and girls. Girls have internalized negative beliefs about themselves. They perceive themselves as unequal and inferior to boys (UNICEF 1995). The clear differentiation of jobs into male and female has also been found (Dorsey *et. al* 1989, Mapfumo 1993, UNICEF Zimbabwe 1995, Gordon 1994 and 1995).

Presently efforts are being made to attain gender equity and equality in the home, at school and at work places in Zimbabwe (UNICEF 1995, Ministry of Education, Sport and Culture and UNICEF 2000). It remains to be seen whether this attempt to promote gender equity and equality has had any effects on boys' and girls' career perceptions and visions or not.

In this study, parents were not included as participants. It was believed that what was important was not what the attitudes of parents were, but whether the pupils felt that their parents were exerting influence on them in their career choice.

The study targeted students in Forms 1-6 in selected schools and aimed to establish:

- Secondary school students' aspired educational level,
- Perceived marital status,
- Knowledge of career,
- Preferred jobs,
- The existence of stereotypic job choices by gender, and
- Major influences on students' job choices.

In Zimbabwe, Forms 1 and 6 are the first and final years of the secondary education cycle, respectively. The Zimbabwe Junior Certificate (ZJC) is the second, while 'O' and 'A' levels are, respectively, the fourth and sixth years of the secondary school cycle. The fourth year is usually the terminal level for many. Those who succeed at this level proceed to different forms of tertiary education. The sixth year normally leads to University education for those who meet University entry requirements. For example, the drop-out rate at this level has been staggering as the following three-year percentages reveal: 1988 (14.5%), 1989 (11.5%), and 1990 (18.4%)(Peresuh and Ndawi 1998).

## **Hypothesis**

The study hypothesized that there were no differences in:

- perceived female and male jobs between boys and girls,
- educational aspirations between boys and girls,
- expected and preferred jobs after school between boys and girls, and
- no differences on major and chief influences on student job choices between boys and girls.

## **Methodology**

### *Sample*

The participants (N=120) consisted of secondary school students (60 boys, 60 girls) of between 12 and 16 years of age, drawn from eight urban and rural secondary schools, four in the Manicaland educational region and four in the Masvingo region. The sample comprised an equal numerical and gender representation from each cycle of the secondary sector as follows:

'A' level (N=40) (20 boys, 20 girls); 'O' level (N=40) (20 boys, 20 girls) and ZJC (N=40) (20 boys, 20 girls).

### *Instrument*

The data for the study was collected through an open-ended questionnaire soliciting for information on perceived job preferences and major influences in career choice for boys and girls. Students were required to write a letter, listing perceived and preferred male and female jobs. A test re-test reliability of the questionnaire carried out a month later with 20 students from two secondary schools in the Masvingo educational region in July 2000 was 0.86. This shows that the instrument was reliable.

### *Procedure*

Permission to carry out the study was obtained from the Ministry of Education, Sport and Culture. The names of the secondary schools in Manicaland and Masvingo educational regions with ZJC up to 'A' level were written down on separate pieces of paper and placed into small containers. One of the researchers randomly picked out four pieces of papers from each container to select the participating schools. The same procedure was followed to select the students from each selected school. The selected students were asked to complete the questionnaire in a period of 45 minutes. Three researchers administered the questionnaire, assisted by class teachers of the selected classes.

### Data Analysis and Results

Cross tabulations, t-test and the Pearson Product Moment Correlation ( $r$ ) were used to analyse data. The summarized data presented in tables which follow were obtained from the sampled 120 students. Under each table is a statement on what the information in each table means.

**Table 1: Aspired Educational Level**

Level	Male		Female	
	N	%	N	%
'O' level	2	3,3	5	8,3
'A' level	4	6,7	11	18,3
College	6	10	—	—
University	28	46,7	23	38,3
University, Ph.D.	4	6,7	—	—

Table 1 shows that more male than female respondents had higher educational aspirations. It is interesting to note that not even one female respondent aspired to do a Ph.D. However, using a t-test for independent samples at 0.5 significance level, the  $t$  obtained, which is 0.15, was smaller than the tabulated  $t$ , which is 1.86. Therefore the hypothesis that there were no differences in educational aspirations between boys and girls can be rejected.

**Table 2: Perceived Marital Status**

Status	Male		Female	
	N	%	N	%
Married	36	60	16	26,7
Single	11	6,7	6	10
Having children	26	43,3	16	26,7

As indicated in Table 2, more male than female respondents aspired to get married. Related to marital status was the aspiration to have children. 43,3% of the male respondents perceived themselves as having children as compared to 26,7% of the female.

The figures in Table 3 were used to calculate the level of correlation and a Pearson Product Moment Correlation ( $r$ ) of 0.9 was obtained. This shows that there is a strong relationship between male and female perceptions about the jobs that should be done by males. The most frequently perceived jobs for males were tradesman, engineer, and security services provider.

**Table 3: Perceived Male Jobs (Male and Female Job Perceptions)**

Job	Male Responses	Female Responses
Tradesman	83	124
Engineering	65	65
Security Services	41	30
Management	38	16
Primary industrialists	32	24
Health related	32	28
Driving	25	28
Politician	13	9
Teaching	12	14
Law related	16	17
Gardner	11	10
Artistic	6	1
Financial	5	11
Other	6	14

**Table 4: Perceived Female Jobs (Relationships Between Male and Female Perceptions)**

Job	Female Responses	Male Responses
Catering	71	42
Health related	70 (56 nurses, 10 doctors, 4 other)	58 (50 nurses, 4 doctors, 4 other)
Secretarial	85	86
Financial	30	16
Designing	47	40
Domestic	32	45
Beautician	10	2
Law related	5	6
Management	9	3
Security Services	4	2
Journalism	7	6
Other	11	17

Using the above figures in Table 4, a Pearson Product Moment Correlation ( $r$ ) of 0.95 was obtained. Once again, the evidence shows that there is a strong agreement between female and male perceptions about the jobs that should be done by females. Students indicated catering, health, secretarial and designing as jobs for females.

Because of the high correlation obtained from both Tables 3 and 4, the hypothesis that there were no significant differences in perceived female and male jobs between boys and girls cannot be rejected.

**Table 5: Jobs Expected After School (Male and Female Expectations and Preferences)**

Job	Male Responses		Female Responses	
	N	%	N	%
Law related	21	35	12	20
Management	15	25	2	3,3
Engineering	35	58,3	4	6,7
Health related	20	33,3	37	61,7
Financial	26	43,3	31	51,7
Teaching	9	15	27	45
Secretarial	1	1,7	12	20
Catering Services	—	—	15	25
Politician	11	18,3	4	6,7
Tradesman	7	11,7	—	—
Driver	8	13,3	1	1,7
Computer Programmer	2	3,3	—	—
Author	—	—	3	5
Other (Geologist, Meteorologist, Game Ranger, Model, Psychologist, Social Scientist)	4	6,7	3	5
Designing	—	—	2	3,3
Journalism	1	1,7	5	8,3

On the whole, the respondents tended to choose stereotypical jobs as shown earlier on, in Tables 3 and 4 above. Male respondents expected to do the male jobs, while female respondents expected to do female jobs. Using the above responses, a Pearson Product Moment Correlation Co-efficient ( $r$ ) of .40 was obtained. The results reveal that there is a difference between jobs expected and preferred by both boys and girls after school. Therefore, the null hypothesis that there were no significant differences in expected and preferred jobs after school between boys and girls cannot be rejected. On health related jobs, 10 female respondents expected to be Doctors and 12 to be Nurses, while 17 males expected to be Doctors.

**Table 6: Major Influences in Career Choice**

Influences	Male Responses		Female Responses	
	N	%	N	%
Relatives	88	46,1	91	44,4
Teachers	50	26,2	63	30,7
Friends	33	17,3	44	21,5
Other	20	10,5	7	3,4

The above responses were calculated using a Pearson Product Moment Correlation Co-efficient, producing an ( $r$ ) 0.95 result. This shows a high positive correlation between male and female students' influences on career choice. Boys and girls indicated that they were greatly influenced by the same people (i.e. relatives and teachers).

**Table 7: Three Chief Influences in Career Choice**

Influences	Female Responses		Male Responses	
	N	%	N	%
Relatives	37	67,3	30	69,8
Teachers	10	18,2	6	14
Friends	5	9,1	3	6,98
Other	3	5,5	4	9,3

Using figures from the above responses, a Pearson Product Moment Correlation ( $r$ ) of 0.99 was obtained. This suggests that the main influences on career choice for boys and girls are the same. Relatives emerged as the chief influences of secondary school students in terms of career choice.

Because of the high correlation between male and female responses on major and chief influences in career choice, the null hypothesis that there are no significant differences on major and chief influences on students' job choices between boys and girls cannot be rejected.

## Discussion

The study sought to investigate the career aspirations and visions of boys and girls in secondary schools. Statistical testing of null hypotheses of the study generated two major findings. First, results indicated a strong relationship between male and female job perceptions. Boys and girls displayed similar perceptions about jobs which should be done by either males or females. Second, there was an agreement among boys and girls that male jobs include engineering, building, electrical, carpentry,



management, security services, welding, mining and driving. The female jobs indicated include nursing, catering, designing, teaching, secretarial and domestic. These findings are consistent with those from a study carried out in Zimbabwe (UNICEF 1995). The UNICEF study found that some occupations are perceived as 'heavy', 'dirty' or 'dangerous' and are always typed masculine. Examples of these occupations were found to be engineering, building, security services and driving. Some occupations are described as 'light', 'clean', 'easy', 'safe' and 'needing a woman touch'. Occupations, such as teaching, nursing, and catering, are always typed feminine. Thus, students' perceptions may have their roots in society. This is in agreement with findings from a study by Bond and Hwang (1986) which established that Chinese peoples' roles are rigidly defined. This societal rigidity in roles explains students' perceptions towards career aspirations and visions of children in school.

Related to the above, is another UNICEF (1995) study, which found that boys and girls believe that subjects like Fashion and Fabrics and Food and Nutrition are feminine and should be taken by girls. This automatically means that the girls will end up in catering and designing jobs, the so-called 'feminine' jobs. This means, therefore, that the choice of school subjects excludes girls from pursuing certain careers of their choice in the future.

The present study found that relatives and teachers were the major influences in boys and girls' career choices. This is in line with the UNICEF (1995) finding that, in Zimbabwe, parents and teachers influence students' job perceptions. Parents and teachers believe that males are suited for the 'heavy', 'dirty' and dangerous jobs, while females are suited for the 'light', 'clean' and 'safe' jobs. This is, perhaps, why boys and girls' perceptions about male and female jobs are similar to those of parents and teachers.

Traditionally, parents prescribe jobs for their children during their day-to-day interactions, while teachers encourage girls to do 'feminine' jobs and boys to do 'masculine' jobs during career guidance sessions (UNICEF 1995). It is worth noting here that the boys' and girls' parents and relatives may already be in those 'feminine' and 'masculine' jobs and that the students follow suit. It is thus likely that the girls and boys' tendency to choose 'female' and 'male' jobs, respectively, is persistent because of lack of proper guidance and counseling. Findings from this study confirm those of Lau (1995) that parents are the major influences on career choice among Chinese children. As a result, children take up jobs that satisfy parents' demands and expectations and not their own individual aspirations. Taylor, Kelso, and Power (1986) in Lau (1995) also found that Australian secondary school students most frequently discuss their intentions with their parents and career teachers.

While relatives, especially parents, are the chief influences in career choice as found in the present study, it is not clear whether parents take into account the children's interests, abilities and the job market, and

demands. Teachers who are supposed to be knowledgeable about students' interests, abilities and job market demands are not taking their expected leading role in influencing the students' career choices. This may lead to a mismatch between the job and the person resulting in less job satisfaction. There is need to seriously educate relatives on career choice. Teachers should also be encouraged to take their leading role in career education. As agents of change, their thinking, attitudes and behaviour should be gender-sensitive (UNICEF 2000). The need for teachers to sensitize students to the fact that there is nothing to stop either boys or girls from getting into any field, provided they have the interest and ability and take advantage of the opportunity, needs to be taken seriously, as this is one of the teachers' key responsibilities.

In view of the findings from this study, one of the challenges facing teachers is how to make students aware of the basic personal qualities required to succeed in any occupation. According to Strang and Morris (1964), the basic qualities to succeed in any occupation are: the right attitude towards work, willingness to take responsibility, accuracy, conscientiousness, and the ability to get along with others.

This study also indicated that boys had higher educational aspirations than girls. The girls had low educational aspirations perhaps because they knew that they would get married and be supported by their husbands. The boys had high educational aspirations because they knew they would be heads of families (UNICEF 1995). From the above, it can be concluded that girls need to be encouraged to aspire beyond marriage and develop a view of themselves as equal players in the world of work and people who can make meaningful contributions to the material and financial well-being of their families.

## **Conclusion**

This article has shown that male and female career choices are influenced mostly by their relatives and teachers and that students are socialised into believing that some jobs are for females, while others are for males. Another interesting result was that more male than female respondents aspired to get married and having children. Thus, the male respondents saw themselves as providers. The less female interest in marriage was however, not matched by higher educational or vocational aspirations. This result was somewhat confusing and worth further investigation. Finally, the article has highlighted the fact that, because teachers are influential in determining the students' career choices, they should play their role in counselling students in such a way that the gender divide between so-called male and female jobs is progressively eliminated. Teachers need to realise that their contribution in career guidance and counselling matters has a very significant role to play in the career choices their students make.

### Further Research

Much more research is needed into the interface of whether parents' socio-economic status (SES) has any influences on their children's career choices. There is need to know, on a much larger and more detailed enquiry, the influences of high and low SES, if any. Likewise, the fact that less female students than male perceived themselves as not having children, needs further investigation.

Looking into the future, much more action-based research in schools is needed which can provide useful leads into the minor and major influences in career choices. Finally and, above all else, it is crucially important that new and experienced teachers come to terms with the fact that their own contribution in career guidance and counselling matters can have a favourable or unfavourable bearing upon the student's career choice.

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**APPENDIX 1****QUESTIONNAIRE ON JOB PREFERENCES FOR BOYS AND GIRLS  
IN SECONDARY SCHOOLS**

GENDER: MALE \_\_\_\_\_ FEMALE \_\_\_\_\_

AGE \_\_\_\_\_

TYPE OF SCHOOL URBAN \_\_\_\_\_  
RURAL \_\_\_\_\_

REGION \_\_\_\_\_

FORM 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_

**STIMULUS MATERIAL FOR JOB PREFERENCES OF BOYS AND  
GIRLS IN SECONDARY SCHOOLS****STIMULUS MATERIAL ONE**

1. You have a friend who is very dear to you. Imagine that this friend goes to a far away place without your knowledge.
2. Imagine also that twenty years have passed without meeting this friend of yours.
3. You have now got her/his address.
4. Please write to him/her and tell him/her in the space provided below about everything which has happened to you since the last time you met.
5. You do not need to write more than one page but try to tell your friend as much as you can inside the one page.

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Thank you.

**STIMULUS MATERIAL FOR JOB PREFERENCES OF BOYS AND GIRLS IN SECONDARY SCHOOLS****STIMULUS MATERIAL TWO**

What we are now requesting you to do is another fairly simple task.

- Draw up two lists in the spaces provided below.
- On one list put down what you think are 'female' jobs that is, those jobs which you expect are to be done by women and not by men.
- On the other list, show those jobs which you think should be done by men and not by women.

**'FEMALE' JOBS**

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**'MALE' JOBS**

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Thank you very much.

**STIMULUS MATERIAL FOR JOB PREFERENCES OF BOYS AND GIRLS IN SECONDARY SCHOOLS**

**STIMULUS MATERIAL THREE**

Your task this time is to state in the spaces provided below three jobs which you may be happy to do after school.

Arrange the three jobs beginning with the one that you desire most to the one that you desire least.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Thank you very much.

**STIMULUS MATERIAL FOR JOB PREFERENCES OF BOYS AND GIRLS IN SECONDARY SCHOOLS**

**STIMULUS MATERIAL FOUR**

You have obviously talked to some people about your plans for a job after school.

Put down four kinds of people who are very important in influencing your decisions about the sort of jobs that you intend to do after school.

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Which one of these four types of people has been most influential in your decisions?

Thank you very much.

## APPENDIX 2

## PERCEIVED MALE JOBS

## MALE RESPONSES

	X	X <sup>2</sup>	Y	Y <sup>2</sup>	XY
1. Tradesman	83	6 889	124	15 376	10 292
2. Engineering	65	4 225	65	4 225	4 225
3. Security services	41	1 681	30	900	1 230
4. Management	38	1 444	16	256	608
5. Primary industrialists	32	1 024	24	576	786
6. Health related	32	1 025	28	784	896
7. Driving	25	625	28	784	700
8. Politician	13	169	9	81	117
9. Teaching	12	144	14	196	168
10. Law related	16	256	17	289	272
11. Gardener	11	121	10	100	110
12. Artistic	6	36	1	1	6
13. Financial	5	25	11	121	55
14. Other	6	36	14	196	84
	385	17 700	391	23 885	19 531

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(\sum x^2) - (\sum x)^2}} \times \frac{[\sum y^2 - (\sum y)^2]}{14(23\ 885) - 391^2}$$

$$r = \frac{14(19\ 531) - 385 \times 391}{\sqrt{[14(17\ 700) - 385^2]}} \times \frac{122\ 899}{134\ 438,68}$$

$$r = \frac{273\ 434 - 150\ 535}{\sqrt{247\ 800 - 148\ 225}} \times \frac{122\ 899}{134\ 438,68}$$

$$r = \frac{122\ 899}{134\ 438,68}$$

$$r = 0,914$$

## APPENDIX 3

## PERCEIVED FEMALE JOBS

## FEMALE RESPONSES

	X	X <sup>2</sup>	Y	Y <sup>2</sup>	XY
1. Catering	71	5 041	42	1 764	2 982
2. Health related	70	4 900	58	3 364	4 060
3. Secretarial	85	7 225	86	7 396	7 310
4. Designing	47	2 209	40	1 600	1 880
5. Domestic	32	1 024	45	2 025	1 440
6. Teaching	40	1 600	30	900	1 200
7. Financial	30	900	16	256	640
8. Beautician	10	100	2	4	20
9. Law related	5	25	6	36	30
10. Management	9	81	3	9	27
11. Security services	4	16	2	4	8
12. Journalism	7	49	6	36	42
13. Other	11	121	17	289	187
	421	23 291	353	17 683	19 826

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2) - (\sum x)^2}} \times \frac{\sum y^2 - (\sum y)^2}{n}$$

$$r = \frac{13(19\ 826) - 421 \times 353}{\sqrt{[13(23\ 291) - 421^2]}} \times \frac{[13(17\ 683) - 353^2]}{13}$$

$$r = \frac{257\ 738 - 148\ 613}{\sqrt{302\ 783 - 177\ 244}} \times \frac{229\ 879 - 124\ 609}{13}$$

$$r = \frac{109\ 125}{\sqrt{125\ 542 \times 105\ 270}}$$

$$r = \frac{109\ 125}{114\ 960,02}$$

$$r = \underline{0,95}$$



## APPENDIX 4

## THREE JOBS EXPECTED AFTER SCHOOL

	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	21	12	441	144	252
2	15	2	225	4	30
3	35	4	1 225	16	140
4	20	37	400	1 369	740
5	26	31	676	961	806
6	9	27	81	729	243
7	1	12	1	144	12
8	0	15	0	225	0
9	11	4	121	16	44
10	7	0	49	0	0
11	8	1	64	1	8
12	2	0	4	0	0
13	0	3	0	9	0
14	0	3	0	9	0
15	4	3	16	9	12
16	0	2	0	4	0
17	1	5	1	25	5
	<b>160</b>	<b>161</b>	<b>3 304</b>	<b>3 665</b>	<b>2 292</b>

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2) - (\sum x)^2}} \times \frac{\{n\sum y^2 - (\sum y)^2\}}{\sqrt{(n\sum y^2) - (\sum y)^2}}$$

$$r = \frac{17(2\,299) - 160 \times 161}{\sqrt{[17(3\,304) - 160^2]}} \times \frac{[17(3\,665) - 161^2]}{\sqrt{[17(3\,665) - 161^2]}}$$

$$r = \frac{38\,964 - 25\,760}{\sqrt{56\,168 - 25\,600}} \times \frac{62\,305 - 25\,921}{\sqrt{62\,305 - 25\,921}}$$

$$r = \frac{13\,204}{\sqrt{30\,568 \times 36\,384}}$$

$$r = \frac{13\,204}{33\,349,45}$$

$$r = \underline{0,40}$$

**APPENDIX 5****MAJOR INFLUENCES IN CAREER CHOICE****MALE RESPONSES**

	X	X <sup>2</sup>	Y	Y <sup>2</sup>	XY
1. Relatives	188	7 744	91	8 281	8 008
2. Teachers	250	2 500	63	3 969	3 150
3. Friends	333	1 089	44	1 936	1 452
4. Other	420	400	7	49	140
	<b>191</b>	<b>11 733</b>	<b>205</b>	<b>14 235</b>	<b>12 750</b>

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2) - (\sum x)^2}} \times \frac{[n\sum y^2 - (\sum y)^2]}{[n\sum xy - \sum x \sum y]}$$

$$r = \frac{4(12 750) - 191 \times 205}{\sqrt{[4(11 733) - 191^2]}} \times \frac{[4(14 235) - 205^2]}{[4(12 750) - 191 \times 205]}$$

$$r = \frac{51 000 - 39 155}{\sqrt{46 932 - 36 481}} \times \frac{56 940 - 42 025}{[4(12 750) - 191 \times 205]}$$

$$r = \frac{11 845}{\sqrt{10 451 \times 14 915}}$$

$$r = \frac{11 845}{12 485,05}$$

$$r = \underline{0,9487}$$

## APPENDIX 6

## CHIEF INFLUENCES IN CAREER CHOICE

## MALE RESPONSES FEMALE RESPONSES

	X	X <sup>2</sup>	Y	Y <sup>2</sup>	XY
1. Relatives	37	1 369	30	900	1 110
2. Teachers	10	100	6	36	60
3. Friends	5	25	3	9	15
4. Other	3	9	4	16	12
	55	1 503	43	961	1 197

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2) - (\sum x)^2}} \times \frac{[n\sum y^2 - (\sum y)^2]}{}$$

$$r = \frac{4(1 197) - 55 \times 43}{\sqrt{[4(1 503) - 55^2]}} \times [4(961) - 43^2]$$

$$r = \frac{4 788 - 2 365}{\sqrt{6 012 - 3 025}} \times 3 844 - 1 849$$

$$r = \frac{2 423}{\sqrt{2 987 \times 1 995}}$$

$$r = \frac{2 423}{2 441, 12}$$

$$r = \frac{0,99}{}$$