

**CULTURAL FACTORS AND ACADEMIC ACHIEVEMENT  
OF SECONDARY SCHOOL FEMALE LEARNERS**

by

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submitted in fulfilment of the requirements for the degree of

**MASTER OF EDUCATION**

in the subject

**PSYCHOLOGY OF EDUCATION**

at the

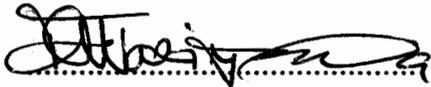
**UNIVERSITY OF SOUTH AFRICA**

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**NOVEMBER 2001**

## DECLARATION

I declare that **CULTURAL FACTORS AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL FEMALE LEARNERS**, is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.



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## **SUMMARY**

### **CULTURAL FACTORS AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL FEMALE LEARNERS**

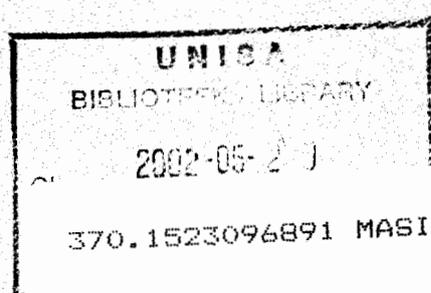
The aim of this quantitative study was to determine whether there were significant relationships between cultural factors and academic achievement of secondary school female learners in the Chimanimani district of Manicaland in Zimbabwe. According to literature, home environment variables, school environment variables and learner variables influence academic achievement of learners. The home environment includes family's expectations, the family's socio-economic status, exposure to role models and child-rearing practices. The school environment includes teacher's attitudes and the curriculum. Learner variables encompass self-concept, gender role concepts as well as the learner's attitude and aspirations.

The empirical research found significant correlations between all cultural factors and academic achievement, particularly in English and at times in mathematics. These correlations were low but positive. The investigation also revealed that diverse age groups did not differ significantly in academic achievement in mathematics or in English. However, females from diverse socio-economic backgrounds differed significantly in their academic achievements.

(ii)

## KEY TERMS

Cultural factors; societal goal expectations; socio-economic status; child-rearing practices; teacher attitudes; curriculum resources; academic achievement; gender role concepts; family role models and self-concepts.



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## **DEDICATION**

**This dissertation is dedicated  
to my family.**

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## CHAPTER I

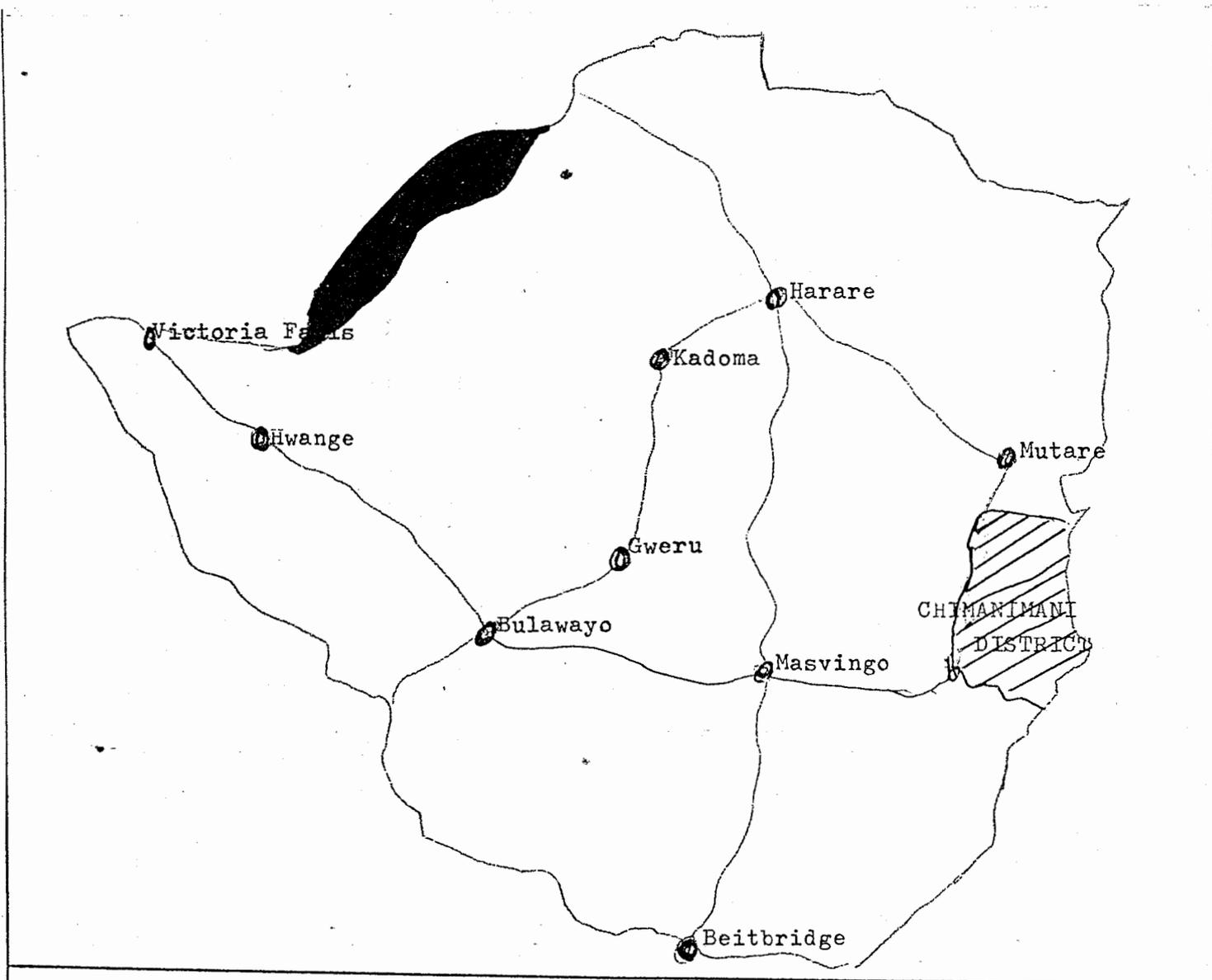
### INTRODUCTORY ORIENTATION

#### 1.1 INTRODUCTION

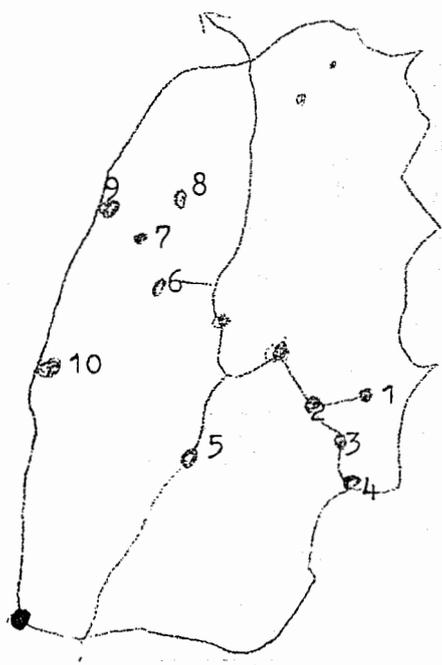
Literate urban dwellers are slowly giving attention to gender issues in Zimbabwean society today (Chikova 1999:7; Mpofu 1993:44; *The Sunday News* 1999:8-10; *The Zimbabwe Mirror* 1998:4). However, very little serious study has ever been carried out, especially with regards to the Chimanimani district. Those who have attempted to study the gender issue have considered the linguistic problem but not the cultural dimension of gender. Where sex-differences were considered, these were focussed on correlational studies stressing mainly the female drop out rates. The few well-known studies were presented as working seminar papers (Dorsey 1989:3, Dorsey 1990:22).

Chimanimani district is an area in Manicaland on the eastern border of Zimbabwe (see figure 1). The people in the district are of mixed communities made up mainly of the Ndaou speakers (Beach 1984:69-71; Beach 1994:295; Bucher 1980:96 Posselt in Beach 1994:151). These Ndaou people are a subset of Shona people (Bourdillon 1991:80) but whose origins are Nguni, Karangas, Manicas, Tsongas and Mocambicans who have intermarried and settled together.

Figure 1: MAP OF ZIMBABWE: CHIMANIMANI DISTRICT



1. MAKUMBURA SECONDARY SCHOOL
2. RUSITU SECONDARY SCHOOL
3. NDIMA GOVT SECONDARY SCHOOL
4. MUTSVANGWA SECONDARY SCHOOL
5. NGAONE SECONDARY SCHOOL
6. MHAKWE SECONDARY SCHOOL
7. CHIKWAKWA SECONDARY SCHOOL
8. CHINOTUMENYERE SECONDARY SCHOOL
9. HOT SPRINGS SECONDARY SCHOOL
10. ST PATRICKS SECONDARY SCHOOL



The work of missionaries opened many areas to civilization. The first mission station was established at Rusitu in Ngorima Tribal Trust Land in 1897 and ever since the station has established satellite stations such as Biriiri High School. District councils have also established a number of high schools in the Chimanimani district, especially towards the Sabi valley on the western side of the Chimanimani district.

There are only a few females attending high schools in the area covered by this study. It appears that some of the people in this area still share the same communal and rural existence that pertains to the Mocambican society across the border. However, this view affects those who live on the border of Zimbabwe and Mocambique.

Very little educational research has ever been carried out in the district in question apart from informal rudimentary oral studies (Rennie in Beach 1994:47) with the exception of the study by Mpofo. Mpofo (1993:45) investigated the factors for the reluctance of girls in Zimbabwean schools to study science subjects as well as the poor academic achievement by girls in high schools. In the process Mpofo stresses the gender stereotyping of chores in classrooms as a result of cultural factors that result of gender differences between boys and girls. Few researchers have considered the influence of home language and the child's learning of science subjects (Alonge 1989:3).

While female teachers have gradually increased in the primary school sector in Zimbabwe up to 1987 (Riley 1987:57), the same cannot be said about the Chimanimani district. School teaching is still in the hands of male teachers. The secondary sector has very few female teachers (Dorsey 1989:121). The effect of religious and traditional belief practices on academic achievement cannot be fully measured (Chung Sook 1984:10; Fishbein & Ajzen in Birtwistle & Johnson 1997:11). For this reason, the main focus of this study will be to establish any significant relationship between certain cultural factors and academic achievement of female secondary school learners.

Mpofo (1993:140) and Mwamwenda (1995:296) attribute the problem of poor female academic attainment on the type of societal chores and sex-role expectations for females. One could therefore say that such observations as reported by the authors were the closest to a

study on the effects of cultural factors on female academic issues. Maraire (1994:12) and Nagel (1992:63), seem to stress culture as the main factor in the development of education. Mutokonyi (1989:2) believes culture to be a whole way of life of people, their cultural heritage and what they possess both physically and non-physically as well as what they are. This is in accordance with the beliefs of Jahoda and Lewis (1989:271); as well as Williams (1983:185). However, some people's cultural heritage can be favourable for economic development while other people's cultural heritage clashes with modern economic development. Dekker and Van Schalkwyk (1989:3) discuss this as man's life world that may promote or limit cultural development. In this aspect cultural phenomena embody social patterns, economic systems, ethical codes, traditions, customs, language et cetera.

## **1.2 ANALYSIS OF THE PROBLEM**

### **1.2.1 General influential factors**

There are several factors which influence the academic achievement of the female adolescent (Faye 1992:71; Fraser & Caskell 1990:3; Rosa 1994:49). Parental attitudes and traditional practices can be influential factors in the academic achievement of a female learner especially when referring to a society whose existence depends on subsistence farming. The teacher's beliefs and expectations can also influence a female adolescent learner (Lemmer 1994:12; Mpofu 1993:144). Spender's study shows how teachers tend to favour boys (Lemmer 1994:12). The adolescent learner's own self-esteem and attitudes to academic achievement can affect the learner's achievement in the school. This research endeavour to find if there is a significant relationship between the academic achievement of secondary school female learners and selected cultural factors like societal/goal expectations, family socio-economic status, child rearing practices, and the self-concept of the learner which is influenced by culture.

### **1.2.2 Beliefs and practices**

Parental attitudes, traditional practices and beliefs can comprise attribute variables that may promote or hinder the academic achievement of a female adolescent (Ames 1990:49; Barnes & Win 1992:61; Faye 1992:72; Perry & Perry 1988:260). Practices, beliefs and attitudes are

essential components of the life style of a learner. Thus, in a study there could be a problem of objectivity in the research especially when it comes to objective measurement. There is a possibility that such a study may result in an endorsement of personal opinion, creating what Rudestam and Newton (1992:46) call “a laundry list of previous studies”. However, original research will be employed in this study. Traditional practices, attitudes and beliefs may stem from a variety of influences, for example religious beliefs may conflict with a secular life-style, an educated parent’s attitude may conflict with that of an illiterate parent; a working parent with an unemployed parent. This means that a society can hold many different beliefs, attitudes and practices (Abraha, Beyene, Dubale, Fuller, Holloway & King 1991:108; Chung Sook 1984:5; Ajzen & Fishbein in Wareing 1990:374).

Beliefs and practices are variables that tend to change with time. Thus, beliefs and practices are not static. The environment can affect one’s beliefs and practices (Behr, Cherian, Mwamwenda, Ndaba & Ramphal 1990:98; Chung Sook 1984:15; Fraser & Caskell, 1990:38; Hulmes 1989:105; O’Connell 1994:83). In a closed community, beliefs and practices tend to be uniform in nature.

### **1.3 STATEMENT OF THE PROBLEM**

In the light of the afore-mentioned discussion, the general research problem may be stated as a research question as follows: *Is there a significant relationship between certain cultural factors and academic achievement of secondary school female learners?*

### **1.4 AIMS OF THE STUDY**

#### **1.4.1 Specific aim**

The specific aim of the study is to establish if there is a significant relationship between certain cultural factors and academic achievement of female secondary school learners in the Chimanimani district.

## **1.4.2 General aims**

The general aims focus on those that will benefit from this study. As Zimbabwean society is beginning to be gender sensitive (Dorsey 1996:31; Mpofu 1993:144; *The Chronicle* 1999:2; *The Sunday News* 1999:8 -10; Williams 1983:185) this study will be very important to the education officers, headmasters, teachers, policy-makers, the Curriculum Development Unit (CDU), School Development Authorities (SDA), teacher training colleges, Parent Teacher Associations (PTA's), The Zimbabwe Schools' Examinations Council, readers of gender issues, and last but not least, the researcher whose own knowledge will be expanded. The upholders of traditional practices and customs would also need to be conscientised on the gender issues that promote academic achievement.

The abovementioned aims will be reached by means of a literature study and an empirical investigation. The approach will be quantitative as explained in Chapter 3.

## **1.5 DEMARCATION OF THE FIELD OF STUDY**

The study will attempt to identify and discuss the significant cultural factors that may influence academic achievement of female learners. The linguistic factor will be mentioned, but not analysed in depth. A study will also be made of various research methods in order to select the most appropriate one.

## **1.6 DEFINITION OF CONCEPTS**

### **1.6.1 Academic**

Academic refers to the successful finishing of those subjects taught to provide for the mind rather than the hand (*The Random House College Dictionary* 1988:7). According to *The Oxford English Dictionary* (1989:86), academic means unpractical, theoretical, formal or conventional. In the context of this study academic will stand for all the subjects studied in the secondary schools in Zimbabwe.

### 1.6.2 Academic achievement

This means the achievement of grades in school. This can also mean academic attainment or ability to excel in subjects taught to provide for the mind rather than the hand (Capel, Leask & Turner 1997:177). The same phrase can also mean the action of achieving, completing, or attaining by exertion, or accomplishment, leading to successful performance of studying. Academic achievement may also mean anything achieved, accomplished, won, a feat, or a victory or performance in a standardized test (Archibald & Newman 1988:1; Willson 1989:55; *The Oxford English Dictionary* 1989:102). The researcher will stress the achievement of grades by the female secondary school learners. Academic achievement will also refer to the attainment of grades in most subjects that involve a major language (English) and a numerical subject (mathematics). This can be defined operationally by, for example, citing a standardized test for achievement, and the results can identify high achievers, average and low achievers (Ballantine 1993:10; Biehler & Snowman 1993:519; Jubber 1988:291; Trew & Kremer 1998:123).

### 1.6.3 Adolescent

According to *The Random House College Dictionary* (1988:19), it means in the process of growing up, from childhood to maturity - meaning a boy or a girl growing up. Stanley Hall's study (in Hurlock 1992:221) supports the view that cultural influences play a major role as maturational factors in the behaviour that characterises the adolescent. Normally, adolescence involves children whose ages are between 13-16 years (Conger 1991:14; Hurlock 1992:221; *The Oxford English Dictionary* 1989:170).

Originally, the Latin word for adolescent was "adolescere" - to grow up - or advancing from childhood to maturity. Corel (1997:6) distinguishes the stage by naming it "latency and early adolescence".

The adolescent is said to be recapitulating infancy when she/he behaves according to adolescent norms. The precise way in which a given person will pass through the necessary stages of

development in adolescence is to a very great extent determined by the form of infantile development the adolescent previously underwent.

Normally, the adolescent stage is characterised by broad physical and emotional changes leading to intellectual and social changes in the adolescent's self-identity. Normally, the self-identity stabilises during this period. Trew and Kremer (1998:107) have also defined the stage as "Stormy" and one which runs between 14-17 years where there is a serious search for identity. However, some adolescents do not show a serious break from the norm.

#### **1.6.4 Cultural**

This term has a more typical sociological meaning. It comes from the word culture and is understood as the overall heritage of the individual and of the social groups to which he or she belongs. The word *cultural* is another form of the word, culture, but here it is in an adjectival form (Perotti 1994:87-88; Jahoda & Lewis 1989:271). This cultural heritage is therefore composed of behavioural norms, values, customs and language, which unite or distinguish human groups. When we speak of the cultural identity of an individual, we mean his/her global identity, that is to say a constellation of several identities pertaining to a number of distinct cultural adjuncts (Perotti 1994:88). We can also compare the word with the explanation offered by *The Oxford English Dictionary* (1989:122). Hence *cultural* means relating to culture of mind, manners or civilization.

##### **1.6.4.1 Culture**

Culture on its own can be equivalent to training, development and refinement of mind, tastes or the intellectual side of civilisation. It can mean custom or artistic achievement of people especially at a certain stage of their development or history. Cashmore (1988:68) gives Sir Edward Tylor's 1871 definition which adopted an ethnographic perspective that culture is that complex whole which includes knowledge, beliefs, art, morals, laws, customs, and any other capabilities and habits acquired by man as a member of society. Society can be understood as an organised set of individuals with a given way of life - culture is that way of life.

Culture emphasises the component of accumulated resources, immaterial as well as material. Lawton (1991:17) defines culture as the word used by social scientists meaning everything that is created by human beings themselves: tools and technology, language and literature, music and art, science and mathematics, attitudes and values - in effect, the whole way of life of a society, the sum total of the knowledge, attitudes and habitual behaviour patterns shared and transmitted by the members of a particular society.

Bentley (1998:88) has summarised culture as the systems of norms, beliefs and practices upheld within social groups, institutions and communities. Such beliefs will always be at the heart of the educational process. Even if they are not outwardly articulated by the learners in lessons, such systems will influence the way in which education is received and treated by the young people. If there is diversity of beliefs this will be expressed in conflict somewhere in the learning (Abraha et al 1991:108).

Perotti (1994:86) refers to culture as a group of people held together by a complex and interdependent structure of knowledge, codes, representations, or formal rules, behavioural models, values, interests, aspirations, beliefs and myths. Culture refers to living and doing. This is fully supported by Geertz (1993:4) with his eleven characteristics of culture that start by a total way of life and end with "a precipitate of history".

#### **1.6.4.2 Factors**

The Oxford English Dictionary (1989:654) gives the meaning of factor to be equivalent to a doer, or an agent. Vos and Brits (1990:39) take cultural factors to cover issues like the logical (analytic thinking), historical, lingual, social patterns, economic, aesthetic, juridical, ethic and pistic. Kerlinger (1986:659) understands a factor to be a construct, a hypothetical entity, that is assumed to underlie tests, scales, items and indeed measures of almost anything.

#### **1.6.4.3 Cultural factors**

Perotti (1994:77) regards cultural factors to take several forms that can be understood as elements whose origins are: biological, physical, social and economic.

The same cultural factors can originate from the territorial area where a community lives. The cultural factors can originate from the historical context of the moment (Masebenza 1994:23; Pea 1987:53) and also from the official language or languages institutionalised. The same cultural factors can originate from belonging to an ethnic group, religion or ideology (Garaway 1994:102).

The cultural factors are also referred to as values, beliefs, attitudes, customs and norms (Lawton 1991:18; Pea 1987:64).

In this study the researcher will consider child rearing practices, sex-roles, societal values and goals as some of the cultural factors that may influence females' academic achievement.

#### **1.6.4.4      *Female secondary school learner***

Learner means a student. The learners in this study will be at secondary school and are therefore adolescents. The lower limits of these adolescents will be determined by the onset of physical puberty and the upper limits by cultural demands (Vrey 1979:165). The learners learn while maturing.

The developmental tasks of an adolescent learner are, among other things, the higher development of formal operational thinking, relational growth of ideas (Tapasak 1990:284) and the further emancipation where parents are seen realistically. The learner's need for acceptance by peers is now extremely important (Vrey 1979:185). The learners benefit from guided self-actualisation.

This study will focus on female learners. The learners will be preparing to pass Form IV examinations at the end of the year and to proceed to tertiary education or to do Form V.

#### **1.6.4.5      *Middle secondary***

This is a phase in education between junior or secondary and higher secondary school during which most females reach physical maturity.

#### **1.6.4.6 Secondary education**

Biehler and Snowman (1993:122) maintain that secondary education may stretch from grades 7-9. However, in most countries grades 8-12 can be regarded as secondary education (*The Oxford English Dictionary* 1989:832). In Zimbabwe secondary education stretches from forms 1-6. Secondary education is a phase between primary education and higher education or university education.

For the purpose of this study middle secondary education will be considered for female learners in Form IV.

### **1.7 CHAPTER DIVISION**

Chapter 1 is an introductory chapter which outlines the background of the study, the statement of the problem and the aims of this research.

Chapter 2 provides an overview of the cultural factors that may influence academic achievement of female adolescent learners. This chapter will also give a brief literature review of cultural factors in international perspective. It will also describe the most important cultural factors that may influence academic achievement of female adolescent learners and also consider the self-concept of a female adolescent learner.

In Chapter 3 the research design is explained and the research methods are outlined.

Chapter 4 deals with the results and a discussion of results.

In Chapter 5 conclusions and recommendations are made. Limitations of the study are also highlighted.

## CHAPTER 2

### CULTURAL FACTORS RELATED TO ACADEMIC ACHIEVEMENT OF FEMALE LEARNERS

#### 2.1 INTRODUCTION

The previous chapter was an introductory chapter giving some background to the research problem. This chapter will be devoted to a review of the literature that is related to the issue of the relationship between cultural factors and academic achievement of female secondary school learners. In the previous chapter (section 1.3) the problem is stated as follows:

*Is there a significant relationship between certain cultural factors and academic achievement of female secondary school learners?*

#### 2.2 OVERVIEW

##### 2.2.1 Brief classical overview

Culture and gender education has been in existence since time immemorial. *The New Encyclopedia Britannica* (1992:27 & 312) explains the differences between men and women in societies as originating from division of labour between sexes.

From Socrates' times in Greek civilization gender issues existed (*The New Encyclopedia Britannica* 1992:18 & 9). Boys were students and free citizens while girls occupied a modest place in society.

The Jewish religion, which forms the foundation of Christianity, records the origins of sex differences by suggesting that a woman was created as in order to keep man company. Thus male Jews were known on a daily basis, to thank the Creator for not having been born women (Perry & Perry 1988:200). On the same note Christianity stresses that man is the image

and glory of God and the woman is the glory of man. It is encouraging that Western education, which stems from Judeo-Christianity, has finally realised the need for gender equality in society.

### **2.2.2 Western education and gender emancipation**

*The Encyclopedia of Education* (1971:303) as well as Venter and Van Heerden (1990:8) trace the history of women's education by quoting Comenius (1657) who said, *Omnes, Omnia, Omnino* which translates as "All people must learn all things in all ways." Comenius considered the seclusion of women from full education as a denial of the divine will and a waste of their capacity to learn. Later Mary Wollstonecraft (1759-1797) took up the issue of women's education when she criticised Rousseau's programme for women because the programme had sex-stereotyping characteristics (Zetlin 1994:39). Thus, Western education came a long way in addressing the traditional practices and beliefs that were understood to be the basis of cultural influences.

### **2.2.3 The concept culture and its multiperspective nature**

The concept "culture" was defined in the previous chapter of this study (par. 1.6.4.1). However, it is useful to trace how researchers have treated this topic and its influence for the past 25 years. The socio-pedagogicians have struggled with the issue of cultural factors and their influence on academic achievement of primary and secondary school learners. The problem of cultural factors arose because of the belief that each culture sets its own demands with respect to the standards of conduct that maturing and becoming learners have to meet (Vrey 1979:6; Horton in Jegede & Okebukola 1991:276; Jahoda & Lewis 1989:271). The learner's individual self is the *gestalt* of what belongs to the learner, that is, the own system of ideas, attitudes, values, beliefs, practices and whatever the learner commits the self to. Thus culture becomes central to all the learner acquires because socially the learner is a product of culture and individually the learner is also a creator of culture (Venter 1979:118; Jegede, Fraser & Okebukola 1994:138; Fraser & Caskell 1990:38).

The learner comes to the class with certain behaviour patterns, learning patterns, relationship to authority, socio-economic and linguistic patterns of interacting with other learners (Schofield 1980:111). However, these continuously develop to renew his/her culture (Stone 1979:95).

The study of culture is very complicated because within a country one can come across several cultures. Culture is considered to be embodied within the language of people (Diaz & Heining-Boynton 1996:607; Jacob 1995:339). In Zimbabwe today there are three main national languages (English, Ndebele and Shona), but there are several minority languages. The presence of several languages contributes to a multiplicity of cultures.

Horton (1967:158) also describes two types of cultures identified as “closed” and “open” cultures. Learners in Zimbabwe come from both types of cultures. However, the rural schools are more closely associated with the closed culture where traditional views are shared by the communities. Learners in urban areas may be more exposed to open cultures and the effects of a closed culture is always understood as interference factors.

## **2.2.4 Culture and achievement**

### **2.2.4.1 Culture and self-actualised individuals**

Culture is equivalent to education in any society. The individuals in that society are assumed to be striving for self-actualisation. In this regard Gibson (1980:192) outlines Maslow’s fifteen common characteristics of self-actualised individuals:

- (i) Efficient perception of reality and comfortable relations with others. Self-actualised individuals are excellent judges of character who can distinguish sincerity from falseness better than most.
- (ii) Acceptance of self and others - they accept themselves and others easily.
- (iii) Spontaneity - they are not concerned with impressing others.
- (iv) Problem centring and no personal biases or self-interest - they do not sway from a clear sighted perception of the facts.

- (v) Detachment - they also have a need for privacy - but self-actualised individuals lack rigid attachment to any set or particular ideas as they like to be objective in their judgements. They are not anti-social, but value the time they spend alone.
- (vi) Autonomy: independence of culture and environment. Self-actualised individuals are not tied down to the culture in which they reside.
- (vii) Continued freshness of appreciation - they have a real sense of joy in experiencing all aspects of life.
- (viii) Mystic experience - limitless horizons open up to the vision of the self-actualised person.
- (ix) Social interest - they have a strong sense of unity and brotherhood/sisterhood among all human beings. Interpersonal relations - they usually have a small number of very deep and rich relationships with both men and women.
- (x) Democratic character structure - they are relatively free from prejudice and jealousy.
- (xi) Discrimination between means and ends - they are patient and enjoy work. They are involved in achieving a goal as much as the achievement of the goal itself.
- (xii) Sense of humour - their humour is constructive rather than destructive. It is not aimed at hurting or putting people down.
- (xiii) Creativeness - in their everyday lives they tend to be original and inventive.
- (xiv) Resistance to enculturation - they can appreciate views which are very different from their own (Gibson 1980:192).

The above points serve as the basic summary of Maslow's characteristics of self-actualised individuals especially as it pertains to some Western, open cultures.

#### **2.2.4.2 *McClelland and Atkinson's views on achievement motivation in cultures***

McClelland and Atkinson (in Gibson 1980:193; Graham 1994:60) are said to have postulated, and experimentally investigated the motive to achieve what in the Western culture is understood to be "successful." They concluded that achievement motive varies in strength from individual to individual. Later this theory developed into cultural and motivational indoctrination (Gibson 1980:197; Clark & Halford 1983:279-280) where some cultures were reported to be lacking this achievement motivation because of previous long experiences of

subordinate roles. The disorganised, unstable and largely father absent, and harshly authoritarian Black families in the United States (Graham 1994:61; Birtwistle & Johnson 1997:15) were characteristic of family structures which are poor in their achievement motivation. Niles (1995:369) as well as Betancourt and Lopez (1993:629) further support the view that the economic development of societies and the rise and fall of civilisations could be attributed to differences in achievement motivation.

### **2.2.5 The Western versus the East Asian cultures and achievement motivation**

Markus and Kitayama (1991:224) conclude that the Americans and the British are individualists according to their cultural backgrounds. Thus, each learner tries to compete against other learners and against the self. As for the Australians, Marjoribanks, (1987:172) reinforces the idea that the family may act as a critical substratum variable between children's attitudinal and cognitive attributes on the one hand and their academic achievements (Astone & McLanahan 1991:309; Chen & Uttal 1988:351; Bornholt & Cooney 1993:75). As far as the locus of control debate is concerned, it is generalised that beliefs about causes or outcomes and reinforcements could be explained by internals versus externals (Maehr & Nicholls in Urdan & Maehr 1995:219). In this case, it appears that the Western culture is more influenced by internal motivation.

The Japanese and the Chinese (Eastern Asian) cultures have a collective approach to life. This is because the Asians regard child-reading practices as cultural upbringing where the belief is that deficiency can be overcome with diligence (Bond & Forgas 1984:334, 350; Arimoto 1995:383; Mau 1997:267; Shimahara 1986:20). In this case female and male adolescent learners do not show differences in academic achievement. The Japanese women are further expected to attend to the inner world of the family in which the education of the children is a central concern (Pretorius 1989:278; Hess & Azuma 1991:3; Ferhman, Keith & Reimers 1987:330). One can detect the collective family influence in the Eastern (Asian) cultures.

When it comes to Zimbabwe, there is a general mixture of motivational influences because of the existence of Western formal education and the traditional African ground motive. It is possible to have individualist and collective achievement motivation in the learners.

However, Urdan and Maehr (1995:219) argue that McClelland's findings (cf. 2.2.4.2) of an inverse relationship between affiliation and achievement motivation in American research participants may not be generalised to other cultures. This assists in explaining differences in cultures of most societies, especially when Western cultures, Eastern and African cultures are compared (Barber 1994:375). It may also be possible to say that within the same culture one can have individuals who may hold different types of ideologies like the collective and individualistic motives (Urdan & Maehr 1995:220). Thus, Zimbabwe may not be a unique nation. The study will attempt to establish the factors that may influence the achievements of female secondary school learners in the Chimanimani district.

#### **2.2.5.1      *Analysis of cultural factors***

Deka (1993:16) summarises the cultural factors responsible for academic achievement in Western and Eastern Asian cultures into two categories:

- **Intellectual cultural factors**

Factors related to "intelligence" are recognised as of inherent quality, with unified stable characteristics, distributed unequally among individuals. Intelligence is understood to be a factor that enables school learners to grasp knowledge and succeed relatively easily in school education. Garrett (in Deka 1993:17; Diaz & Heining-Boynton 1996:610) observed that intelligence includes abilities demanded in solution of problems when required and the comprehension of connections and use of symbols. However, it should also be noted that intelligence as understood by the scholars who emphasise the importance of context should be defined within a particular cultural context and that comparisons across cultures can only be made with caution (Smith, Cowie & Blades 1998:469; Fuller & Clark 1994:122).

- **Non-intellectual cultural factors**

There are numerous non-intellectual cultural factors that may influence achievement, and many of them are debatable. In this regard Deka (1993:18) concludes that researchers should

investigate intellectual abilities first before considering the non-intellectual factors. However, presence of superior intelligence does not guarantee high achievement. Deka (1993:18) lists non-intellectual factors that influence achievement. They are personality variables, persistence, motivation, educational and vocational goals, socio-economics status and school behaviour. This study will attempt to find out if there is any significant relationship between selected non-intellectual cultural factors and academic achievement of female secondary school learners in the Chimanimani district.

### **2.3 CULTURAL FACTORS AND ACADEMIC ACHIEVEMENT OF FEMALE SECONDARY SCHOOL LEARNERS**

Nearly sixteen years ago Clark and Halford (1983:280) argued that the Australian aboriginal secondary female learners attained low scores in schools because the Aborigine learners are more field dependent, impulsive, and less analytic in their cognitive styles. In this case field dependence is equated with the traditional form of thinking which emphasises the past rather than the future. The thinking of a traditionalist is also understood to be in conformity with religious, political authority which is vested in tribal elders, kinship ties and affiliation. While Clark and Halford (1983:280) discuss field dependence in the case of the female Australian Aboriginal secondary school learners most researchers have not yet fully agreed on the truth or reliability of the theory of field dependence/independence in explaining the gender differences of school learners. For example, Bowlin (1988:102) concluded that there appears to be no difference in the field-dependent/independent cognitive styles of males and females.

Actually, the low significant correlation between mathematics, social studies and science scores observed in the results of males and females did not give conclusive evidence of the effects of field-dependence/independence cognitive styles (Garaway 1994:102-103). However, Ebbeck (1984:119-120) and Carpenter and Hayden (1987:156-157 ) support the theory that the traditional societies start channelling children into sex-stereotyped activities even at pre-school level.

Many researchers are beginning to observe that the traditional situation where women assumed expressive occupational roles while men assumed more instrumental roles such as breadwinners

and disciplinarians now no longer persists because of change in societies (Ebbeck 1984:120; Bornholt, Goodnow & Cooney 1994:677; Barnes & Win 1992:61).

### **2.3.1 Societal educational aspirations as cultural factor**

Zimbabwe is a third world country. The majority of the population has adopted a borrowed ground motive in its formal education system. Most school learners have been exposed to Western type of formal education. However, Dorsey (1989:2) stresses that there is a conflict of expectations especially when it relates to the traditional society in the rural communities and to a certain extent some urban dwellers whose roots are in the communal lands. The communities regard the girl as an asset due to the expected bride price to be paid at the girl's marriage. It is thus possible to find that some parents will desire to educate girls so that at a later stage they can charge high lobola. Thus there are those who would rather groom the daughters for the roles of wife, mother and as a provider of food for the family. However, observation and informal interviews by the researcher have indicated that many prefer not to educate girls because they fear losing material gain when the girl marries. When this happens, parents will not have cheap labour in the home.

The Zimbabwean girl child therefore, is seen as a secondary citizen in society. The girl is expected to be submissive and obedient. On the other hand, literate and highly educated parents expect the daughter to be a high achiever in secondary school. The girls whose "inner environments" are good tend to be high achievers in schools as observed by Komarovsky (in Dorsey 1989:3) as well as Barnes and Win (1992:61).

When parents and the society have high educational aspirations, the female secondary school learners tend to have high aspirations too. However, where societies have different expectations for girls and boys these very expectations are transmitted to the female learners by the parents, the society and the school. This in the end will influence the female learner to excel in school, if expectations are high, or underachieve if the expectations are low (Skaalvik 1983:300,304; Safir 1986:581; Buseri 1987:580). The current study will also attempt to ascertain whether there is any significant relationship between parental expectations and academic achievement of female secondary school learners in the Chimanimani district.

### 2.3.2 Vocational goal expectations as cultural factor

Schneider and Coutts (1985:48) argue that female and male adolescent learners do not differ in the level of achievement motivation, but male and female achievement strivings are directed toward goals consistent with their sex roles (McInerney, Roche, McInerney & Marsh 1997:208). In this case female secondary school learners concentrate on succeeding in interpersonal relations while male secondary school learners concentrate on impersonal tasks. At adolescence social concerns become particularly salient for female secondary school learners. There is also a notion that during adolescence conflict between social and intellectual pursuits intensifies resulting in scholastic success being given a less important role for the female secondary school learner (Schneider & Coutts 1985:50; Bell 1989:193).

On the other hand, Jegede and Okebukola (1991:276) support the view that goal structure, authoritarianism, African world views, societal expectations and sacredness of science are cultural factors that influence female secondary school learners' academic achievement. This therefore means that when it comes to scientific subjects in school in a third world country, the five cultural factors mentioned by Jegde and Okebukola are thought to cause some achievement differences between the learners' school academic achievement. There is a general feeling that the goal structure of a female secondary school learner, whether in the Western culture or third world culture is more associated with collectivism and of a cooperative nature than a competitive individualist type (Jubber 1994:135-140). This means that the female goal aspirations are more correlated with non-individualistic competition. Some researchers have come to realise that such qualities as competitiveness, assertiveness and competence are not sex linked either on the basis of genetics or early socialisation (Van der Zanden in Dorsey 1990:28).

Where female adolescent school learners attain high grades in school in Zimbabwe, it may be because such learners have the same goal aspirations as the minority groups in the United States who overcome cultural barriers and excel in schools (Watts-Warren 1995:16; Bailey 1993:327-329). Usually such groups of female learners manage to excel because of a strong sense of duty to their parents. The female secondary school learners also have a high commitment to the pay off value of education and together with their high levels of collective

identity, these female learners are motivated to excel in school. Usually such groups of female learners manage to excel because of a strong sense of duty to parents.

The recent literature has done further research on the achievement goal framework that integrates cognitive and affective components of goal directed behaviour (Ames 1992:261; Chen & Stevenson 1995:1215-1233). An achievement goal is said to concern the purpose of achievement behaviour. Two contrasting achievement goals are mastery and performance goals. The two types of goals are understood to influence academic achievement in most learners. The majority of female secondary school learners attribute success to mastery goals where effort and not just ability is involved. The male learners are often said to attribute success to performance goals where ability, with little or no effort is involved. However, several researchers now accept that the two types of achievement goals can be found in one individual at the same time (Ames 1992:262; Johnston 1995:10-11).

Mickelson (in Ekstrom 1994:20) has proposed some other theories that could explain the reasons why some female secondary school learners attain high grades in schools. Two of Mickelson's theories are:

- (i) Women are aware of the sex-segregated occupational structure in society and know that men receive greater returns from education than women, but women do not care about the sex-segregated occupational structure and so they go on to achieve more than males despite the cultural barriers.
- (ii) Pollyana theory: Today's young women believe that sex-segregated occupational structures are thing of the past, therefore, women do well in school because they are confident they will find employment opportunities equal to males.

It is fairly evident that Mickelson's theories are more in line with current Western cultural factors. This study will also attempt to find out if there is any significant relationship between the female-secondary school learner's academic achievement and vocational goal structures.

### 2.3.3 The family's socio-economic status as a cultural factor

- Halsey (in Marjoribanks 1987:171) warns educators that the concepts of social status should not be trivialised to the point where differences of parental attitudes are conceived as separate factors rather than as an integral part of the work and community situation of the learners. However, to low-income families, girls can be a source of wealth (Dorsey 1989:2; Stromquist 1989:143) as these girls are needed as available extra labourers in the home who act as child-minders, house-keepers or even as assistant income earners (in Stromquist 1989:144). It becomes clear that the low-income families' attitude to the girl child's education can affect the female secondary school learner's academic achievement in school (Van der Westhuizen, Monteith & Steyn 1989:769; Ward 1996:44).

Some researchers have also observed unique situations where female secondary school learners in some cultures attain significantly high grades especially when there are income problems. Bullock, Whitt and Beebe (1991:209) observed an incident in Canada where low income favoured girls. Girls will continue to attend school while boys will drop out to look for employment. At the same time Bullock et al (1991:210) acknowledge that the gender gap is disappearing among low income families as reported by Lynn and Hyde (in Bullock et al 1991:210).

Sometimes, however, the female secondary school learner is at a disadvantage when the family is poor because girls may marry to escape poverty at home. Moreover, as the young men marry women who are younger than them, some women may forego high school for marriage, thereby retarding the growth of female education enrollments to some degree.

However, high socio-economic status is an advantage for the girls especially when parents can afford to give children enough resources. Several research studies have reported that the family environments that are supported by high socio-economic status have been observed to be much more important than the school environments in influencing female secondary school learners' academic achievement. While it is still evident that female adolescent learners even from high socio-economic status have lower aspirations than male adolescent learners, female adolescent

learners have been observed to achieve high grades when economic factors are positive (Wilson & Wilson 1992:52).

What is of interest again is to note that female adolescent learners whose parental education is high (and this is associated with higher socio-economic status) tend to have high aspirations (Wilson & Wilson 1992:59; Young 1994:315; Tait 1995:749-751).

Saha (1992:191) has a different view of the benefits of socio-economic status when she says that the level of socio-economic development is thought to exercise an independent positive effect on academic performance in science for female and male learners, but a negative effect on the career aspirations of female adolescent learners.

Flanagan (1993:359) supports the theory that female secondary school adolescents from lower working class families have lower aspirations. This is often the case because the sons from the lower working class families are regarded as future breadwinners and so financial support is given to the sons resulting in female learners giving up the desire to work hard. Female adolescent learners from lower working class do well in school only when the school itself takes up much of the burden of encouraging the female learner to succeed (Flanagan 1993:363; Graham-Brown 1996:116,162).

Socio-economic status has always been seen to be a very important factor in the achievement of learners. Most researchers have attributed a sizeable portion of differences between learners of colour and learners of other groups like Hispanics, Whites, Jews and Asians to socio-economic status. Fejgin (1995:18) describes how family income, parental education and family size have enabled female adolescent learners to attain high grades in school when the family has economic power.

Asian and Jewish female learners benefit a lot from the family income, but the female learners are said to achieve more on account of the high standards set by the cultural values (Steinberg, Elmen & Mounts 1989:1424). The collective motives enable the female learners to share and cooperate among the peer groups. Parental incomes will then act as another influence on the

academic achievement of the learners (Campbell & Mandel 1990:64; Fejgin 1995:20; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh 1987:1 244).

The schools that serve a majority of low income clients tend to affect the academic achievement of female adolescent learners especially when there are lower levels of school funding that result in minimally prepared science teachers joining such schools (Buseri 1987:580; Wilson in Wareing 1990:232).

### **2.3.4 Child-rearing practices and sex-roles as cultural factors**

The home is supposed to be the place where most ideas have their genesis. The home and the community become the initial background for a girl - child and a male-child in the journey of becoming and development. Buseri (1987:580) explains that in the deepest sense a culture serves as an amplifier of capacities of those who participate in that culture. The more technologically and advanced the culture, the greater is its potential for amplifying the powers of the human hand, the human senses and human thought.

However, the child-rearing practices of a community will not be the same for all cultures as observed by Dekker and Van Schalkwyk (1989:3) when they refer to life-world as a factor which may promote or limit the cultural development of a learner.

#### **2.3.4.1 *The advantages of child-rearing practices***

When the intellectual climate of the home is favourable, and the attitudes, values and aspirations of the families are positive, family child-rearing practices can be identified as major determinants of the female adolescent learner's academic achievement and ability (in Lamb 1990:3). Barber (1988:375) fully supports the view that the nature of the home with regard to behaviour and parental help with homework has a direct influence on academic achievement. For the enlightened family, gender role socialisation has a dual significance for girls because it provides girls with role models for present behaviour. Girls are also prepared for adult life as suggested Wrigley (in Lemmer 1994:9; Mau 1995:267). A detailed study of family influence on the girl-child learner was conducted by Fontaine (1994:226) who traced the family influence

on the girl-child for 30 years. Fontaine proposes two educative dimensions of child-rearing practices: early achievement training and early independence training. It is interesting to note that family life structuring, authoritarianism, autonomy, acceptance and expectations can be very influential in the academic achievements of an adolescent female learner.

Middle class parenting practices are said to reflect a coherent set of cultural beliefs about the relation of the individual to the group and about the role of parents in bringing children into the group (Martini 1995:49). Washington and Newman (1991:19) found that Black females have higher participation rates than Black males in high school graduation, college enrolments, college matriculation, graduate school enrolment and degree attainment because of the family and child-rearing practices that make Black mothers powerful and strong disciplinarians with regard to daughters as they expect more responsibility from girls (Washington & Newman 1991:23).

Parental expectations are often equated with child-rearing practices and for this Bridglall (1991:270) concludes that parental involvement in the children's education is positively linked to academic achievement. Better results in school are associated with behaviour control and effective involvement in the female adolescent learner's school work (Bridglall 1991:115; Cherian 1991:547; Patrikakou 1996:437).

However, it appears that several social scientists have assumed that parental influence is sharply curtailed at adolescence because of the rising counter influence of peer groups over which parents have little control (Brown, Mounts, Lamborn & Steinberg 1993:467). But still, Brown et al (1993) found out that four factors influenced academic achievement of female adolescent learners, and these factors are:

- (a) parental emphasis on achievement;
- (b) parental monitoring of learners' work;
- (c) joint decision-making between parents and adolescents;
- (d) family socio-economic status as an important factor in adolescent's peer-groups.

While Rosa (1994:5) accepts the importance of the role attached to the child-rearing practices on the academic achievement of the female learners, she places more emphasis on the responsibility of the father figure in the family. However, the mother is still needed as a role model for the female adolescent school learner (Dorsey 1990:31). Actually, in the Chinese and the Japanese society the mother is the best role model for the female adolescent school learner. The Chinese and Japanese parenting styles have puzzled many researchers in that regardless of the restrictive and authoritative nature of the parenting styles, female and male adolescent learners attain high grades in school (Chao 1994:1111; 1996:404; Arimoto 1995:383).

Sometimes socio-economic status influences child-rearing practices. Blank in Martini (1995:50) proposes a deficit theory which is explained as follows:

*Middle class children enter school better prepared to meet its demands, and are supported throughout their school careers by parents who understand the system and have, in many cases succeeded in it.*

According to this view, middle class children acquire habits of thinking, talking, interacting and learning at home, which closely match the demands and procedures at school.

#### **2.3.4.2      *The negative aspects of child-rearing practices***

After several research studies on inequalities in the education of the girl versus the boy child Dorsey, Matshazi and Nyangura (1991:23) as well as Dorsey (1989:3; 1990:31; 1996:29) have protested about gender issues in Zimbabwe. The most serious area often identified by Dorsey et al is the socialisation and sex-role of the girl child in the family. Girls are thought to initially acquire an image of themselves and of their sex-role in society as adults in the family. The family child-rearing practices are sex-stereotyped in nature wherein boys and girls are expected to be brought up very differently from each other. The boys are regarded as the future breadwinners and family jewels; whereas girls are seen as servants. Parents would rather spend money on boys than on girls. Therefore, girls are conditioned from an early age to believe that they are inferior to males (Dorsey 1989:2). This may negatively affect achievement motivation.

Niles (1995:370) believes that differing child-rearing practices and eco-cultural forces are likely to produce kinds of socialisation practices that instill varying levels of achievement in boys and girls. In this case child-rearing practices that separate children of different sex in the same family may be linked to the eco-cultural forces that are primitive and not to the enlightened societies.

What Niles (1995:370) considers above is confirmed by Birenbaum and Kraemer (1995:342) who also observe that different child-rearing practices can affect the academic achievement of the female adolescent learner negatively, especially with regard to the gender role socialisation pattern. For example, the Arabs consider the male child to be an asset while the girl child is of less importance, apart from her role as a future mother. The female adolescent learners in such cultures often attain low school grades because they have acquired negative self-images.

Young and Fraser (1994:257) accuse the school and the attitudes of parents in failing to encourage female adolescent learners to take up science subjects. Thus the school becomes an extension of the child-rearing process for the female adolescent learners, especially if sex-stereotyping of subjects in school is still evident (Colley, Comber & Hargreaves 1994:15; Flanagan 1993:363). However, Basola (1991:161) warns readers that the school as a formal agent of sex-role socialisation can also transmit predominant sex-role social values. Thus, differential sex-roles through formal school subjects can be a big disadvantage for the female adolescent learners in any school.

Other researchers have fully accepted the home background as the culprit for disadvantaging the female adolescent learners' progress in school achievement (Morris 1992:20). There are those who try to put the blame on the field dependent/independent theory for the female adolescent learners' low achievement in school. The mothers of the field dependent girls are often thought to be the cause of their daughters' field dependence. However, it is encouraging to note that most researchers question the authenticity of the field dependence theory (Bowlin 1988:107).

Stromquist (1989:143) decries the cultural norms and the division of labour which function within the home to the detriment of the girl child because girls are defined primarily as just

future mothers whose academic achievement is of less importance. Most adolescent female learners are needed to do some domestic work in the homes (Stromquist 1989:150; Dorsey 1989:2-6).

Boys are often thought to attain higher grades in physical sciences than female learners (Levin, Sabar & Libman 1991:326) because of the unequal science-related experiences and cultural stereotyping of the female role combined with a non-science career orientation (Levin et al 1991:327). In this instance, it looks like both the school and the home child-rearing practices are to blame for the girl child's relatively low academic achievement in schools in some cultures.

The view cited in the above paragraph is refuted by McGillicuddy-De Lisi and Subramanian (1994:210) who stress the point that not all parental practices are detrimental to female adolescent learners' achievements. It is only when parents abdicate responsibilities for some aspects of their children's knowledge acquisition once children are under the teacher's care that female adolescent learners may attain lower grades in schools. However, Menaghan (1989:693) observes that the disadvantages of child-rearing practices are strongest for the unemployed husbands and the unemployed, unmarried mothers. The scenario may further be worsened when authoritarian and permissive parenting styles are present (Mashile & Mellet 1996:224). The school grades correlate negatively with authoritarian and permissive parental child-rearing styles (Dornbusch et al 1987:1244).

Washington and Newman (1991:23) observe that parenting styles that do not offer positive role models affect both female adolescent learners as well as male adolescent learners negatively. But most researchers have concluded that negative role models are often observed in low-income families where adolescent school learners receive different preparation at home, consonant with different cultural beliefs concerning what is important in life, about how children should act towards adults, how children learn best and what is the purpose of schooling (Martini 1995:50).

### 2.3.5 The school environment as a cultural factor

#### 2.3.5.1 *The school curriculum*

Normally, the school curriculum involves the aggregate of courses of study given in a school or the regular or a particular course of study in a school (*The Random House College Dictionary* 1988:328). White (1997:5) questions who is actually responsible for what should be taught in school and whether all children should learn the same things and at what ages. White believes that teachers as curriculum innovators can encourage female learners to achieve in areas that were previously regarded as male domains (White 1997:81; Schneider & Lee 1990:358).

Teachers should start by examining the society in which the student lives and see how the school can best help the student function in that society. In the United States, several states include in the students' graduation requirements a number of survival competencies that all students must master in addition to their basic academic requirements (Meece & Eccles 1993:313-314). Educators who believe that the major focus of the school's goals should derive from the disciplines, emphasise a curriculum based on subject matter that has stood the test of time rather than a curriculum designed to help students adjust to society (Dembo 1994:240; Farkas, Sheehan, Grobe & Shuan 1990:127). This also calls for educators to focus on more than one source in developing a balanced educational programme with good curriculum guides and appropriate textbooks that do not have a bias towards one sex if all students are to achieve high grades in school (Ford & Harris III 1994:216).

Gibson (1980:61) terms the above issue as "the learning-environment" where there is the desire to have early stimulation that is guided by good timing. Actually, the criterion for success is not simply increased achievement, but whether adolescent learners make sense of the material and organise it into a meaningful whole. When learners make sense of what they are learning leads to competency-based education (Gibson 1980:220; Fishbein 1990:127).

A warning is also given, especially when the curriculum structure reflects the organisation found in textbooks, that the planners must analyse the effects of the questions set and tasks to

be done by the learners to ensure long-term retention of the subject matter and avoidance of sex biases and language problems (Alonge 1989:3-4; Gibson 1980:279).

### **2.3.5.2      *The school chores and teachers' expectations as cultural factors***

Most researchers are in agreement that it is important to display socialised behaviours that are the result of achieved status where talent and skills of individuals are developed rather than the ascribed status that are determined by birth, for example, sex or race (Avery & Walker 1993:27). This is important because cultural differences in child-rearing practices do indeed influence the acquisition of sex-typed behaviour (Gibson 1980:37 Ladson-Billings 1995:159). Many feminists and child development specialists have called attention to ways in which schools perpetuate different sex-roles expectations for boys and girls (Eisenhart & Holland 1983:321-329). Some schools have sex-segregated activities such as physical education, home economics, classroom sweeping et cetera. Sex biased activities influence the achievement of female learners. The female teachers themselves become victims of sex bias sometimes without realising it. The school counsellors who adopt the role of preserver still steer female adolescent learners into homemaking or traditionally feminine occupations (Gibson 1980:421).

Brophy and Good (in Covington 1998:61) observe some mixed and incomplete findings in connection with sex differences in achievement as far as some school subjects are concerned. Undheim and Nordvik (1992:93) maintain that girls are still slightly more confident about attaining language proficiency than boys - while boys are decidedly more confident about attaining mathematics and science proficiency than girls in Norwegian society. Girls can do well if the teacher assists through encouragement. This is because some researchers observe that girls and boys achieve high grades in subjects and tasks labelled feminine and masculine respectively. However, Brophy and Good (in Covington 1998:61) report that sexual appropriateness of tasks affects performance as well as attitudes and also negatively influence academic achievement of learners when cultural sex-roles are applied (Covington 1998:115; Van der Westhuizen et al, 1989:769). Teachers' expectations which are influenced by culture can lead to self-fulfilling prophecies as far as female secondary school learner's achievements are concerned (Dembo 1994:187,398).

The following table indicates the incidence among different cultures of training girls or boys more pertinently to develop certain characteristics (in Smith, Cowie & Blades 1998:156).

	<b>GIRLS ATTAINED MORE %</b>	<b>BOYS ATTAINED MORE %</b>	<b>NO DIFFERENCE</b>
Nurturance (N=33)	82	0	18
Responsibility (N=84)	61	11	28
Obedience (N=69)	35	3	62
Self-reliance (N=82)	0	85	15
Achievement (N=31)	3	87	10

### **2.3.5.3      *The school resources and provisions as cultural factors***

When the school environment is enriching and stimulating female adolescent learners may achieve high grades (Smith et al 1998:489; Farkas et al 1990:127). Where schools have less provisions, less teachers, poor school buildings and no proper facilities for female learners such situations will have a negative influence on the academic achievement of learners regardless of gender (Jules & Kutnick 1990:232 – 233). However, there is a tendency among the low socio-economic status schools to practise gender bias against female learners (Dorsey 1989:6; Smith et al 1998:501).

### **2.3.6    The influence of cultural factors on the female adolescent learner's self-concept**

#### **2.3.6.1      *The concept self-concept***

Self-concept or self-esteem is a very basic part of the individual that is influenced by the family and the peer group in the development of an adolescent (Gibson 1980:88). The attitude about one's worth as a concept (self-image) of a person is the unified mental picture every individual has of self. This is what Vrey (1979:13) terms the individual's self-gestalt of what he/she can call his/her own system of ideas, attitudes, values and whatever he/she commits the self to. The self-concept is a complex and dynamic system of beliefs which an individual holds true about himself/herself (Vrey 1979:268).

However, the female adolescent learner who is in Form IV at this stage has a more realistic and consistent self-concept. The sex-role will have been consolidated positively or negatively. Actually, Skaalvik (1983:299) criticizes the theoretical aspect that overlooks motivation towards self-regard when researching the relationship between self-esteem and academic achievement because in most developing countries there is strong pressure on the male adolescent not to devalue school and yet the female adolescent is not pressurised to value school (Skaalvik 1983:300).

### **2.3.6.2 *The female adolescent's self-concept and the school***

When female adolescents are in school they meet traditional norms and expectations outside their homes. There are different expectations for female learners and male learners which are transmitted to the learners by parents, society and by the schools themselves, leading to heavy cultural pressure for males to be successful in education (Skaalvik 1983:304). Safir (1986:588) also found that the female adolescent in Israel faces similar problems. The Kibbutz adolescents, have been found to be less gender conscious than the city Israelis. Often the Jewish orthodox traditions encourage gender differences. This is because parents ranked intellectual and educational values lower for girls resulting in girls suffering from negative self-concepts. The Greek society also faces the same problems where female secondary school learners are discriminated against by male teachers (Kantartzi, in Hatzichristou & Hopf 1996:1086). Actually, when society discourages sex biases against girls, this encourages the attainment of positive self-concepts and high grades (Klainin & Fensham 1987:217).

In Thailand girls from single sex schools attain higher grades than males from single sex schools. On the other hand some researchers have hinted that the results of comparative studies regarding the advantages and disadvantages of single sex versus co-educational schools are still inconclusive (Bell 1989:196). In this regard it was noted that pupils who attend mixed secondary schools attain lower scores on tests than those who attend single sex schools. Most fathers of pupils at single-sex schools are less likely to have manual occupations than fathers of pupils in co-educational schools.

Zimmerman and Schunk (1989:55) quote McCombs' views of the self as the active constructor of cognitive representations and understanding of an objective world. Thus, the self is both a self-conscious subject of experiences and the object of them. It is therefore possible that a female adolescent in a school whose cultural and societal expectations are sex-stereotyped will attain school grades that are close to the expectations of the school (McInerney & Sinclair 1991:124).

Generally, at primary school levels, female learners have been noted to attain higher grades than male learners, but there is a sudden change after junior secondary school level as most females are said to then be just satisfied with mere passes (Wiechers 1990:15). The reason given for this sudden change is that by late adolescence the self-concept of female learners will have stabilised as cultural expectations emerge powerfully.

According to Wareing (1990:37) certain selected research studies and reports note that attitudes regulate in part or in whole, all behaviour (Wareing 1990:371). However, there does not appear to be a consistent cross-age causal relationship between attitudes and achievement (Wilson in Wareing 1990:372). While this is true it is also understood by some researchers that attitudes are presumed to guide or influence behaviour (Ajzen & Fishbein in Wareing 1990:373). Therefore a person's behaviour and attitudes should be understood from a person's life-world which is also to be understood through the person's self-concept. The life-world may promote or limit the person's cultural development as elements of a person's world may play a role that includes not only natural and physical circumstances, but also cultural phenomena such as patterns, economic systems, ethical codes, traditions, customs, languages et cetera (Dekker & Van Schalkwyk 1989:3).

In Zimbabwe, the rural, day school female learners often develop negative self-concepts because of daily hardships when attending school. Such girls come from widely scattered communities and have to walk long distances to school or make their own illegal arrangements for boarding, either staying with friends or relatives or frequently using classrooms as dormitories at night and classrooms during the day, cooking their own food over open fires (Dorsey et al 1991:23).

The school becomes a formal agent of sex-role socialisation transmitting predominant social values resulting in differential sex-roles. This is where the type of school the female adolescent attends may promote or limit the cultural development of the learner. The presence of systematic school organisation, availability of positive role models, and absence of sex bias constraints will enable the female learner to develop a positive self-concept which will result in influencing the academic achievement of the female learner (Basola 1991:160).

A positive self-concept is widely valued as a desirable educational goal and is frequently posited as a mediating variable that facilitates the attainment of other desired outcomes such as academic achievement (Craven, Marsh & Debus 1991:17).

Venter (in Gumede 1989:6) confirms that the school has a considerable influence on academic achievement and if the school influence is to be fully realised, the number of learners in each class should be limited to a manageable size. Large classes should be for humanities and history classes whereas the sciences require small numbers of learners (Gumede 1989:112).

However, Gumede (1989:55) admits that in Africa sex differences are bound to be great because of the African culture which gives more importance to male children. Thus, the female learner's self-concept will be influenced negatively by the culture (Craven et al 1991:17).

Willits (1989:69) believes that academic proficiency in high school may provide greater access to educational, occupational and income opportunities for male learners than for female learners. Therefore male learners are better prepared to compete for academic achievement, whereas female learners are more preoccupied with the acquisition of interpersonal skills, peer friendships, familial ties and more effective and expressive behaviours which are expected of all females by the school. This means that role expectations seem to dominate the minds of all female adolescent learners. But, Monnakgotla (1991:13) is of the opinion that the female's self-concept will be enhanced where the discipline, the school climate and the school standards are well maintained. To this Bornholt and Cooney (1993:75) add such factors as teacher models for girls in schools, peer models and success in the school as influences on the self-concept and academic achievement of the female adolescent learners.

Campbell and Mandel (1990:66) accept Fairweather's statement (1976) who feels that most gender differences in cognitive abilities and self-concepts are due to cultural differences (Steinberg, Dornbusch & Brown 1992:723 - 727). In fact, with practice and training in school the female self-concept can be enhanced and improved to a level equal to that of males. In this regard Asian-American females were observed to excel in all subjects that were previously regarded as males' domain.

Dembo (1994:456) regards the self-concept to be multifaceted and an issue that should be developed in a hierarchical dimension. It is possible for female learners to be more concerned about matters that influence their non-academic self-concepts. This is because many schools fail to develop cultural programmes that improve girls' self-concepts. The two major problems involved are the weak intervention programmes and the poor relationship between the intended goals of the intervention and the specific dimensions of self-concept being evaluated. The best that may be done is to allow the self-concept to develop with the girls' age through exposing girls to academic experiences in school throughout their development. This is what some researchers have observed in other cultures (Lemmer 1994:5; Klainin & Fensham 1987:217).

Wiechers (1990:15) describes the influence of cultural expectations on self-concept during female adolescence. At this stage in the female development cultural expectations are more influential resulting in poor self-concepts for female learners. Hoberg (1994:198) states that it is important that the adolescent female learner possesses a positive self-concept during the time of ambivalence. If a female learner feels that she does not belong to the family she is certainly bound to have a negative self-concept (Lee & Lockheed 1990:209). This becomes worse when teachers' expectations are of a gender stereotyped nature where girls are to be seen and not heard, where girls are expected to work in the kitchen and become machines producing babies in society. The male learners on the other hand are expected to be more logical and quicker at grasping concepts (Lemmer 1994:11-12). Thus, girls at adolescence are said to experience conflict between achievement and the need to conform to gender role expectations. As a result of peer pressure and adult (teacher) expectations, girls often perceive success in mathematics as contradictory to femininity (Lemmer 1994:16).

Graham (1994:55) stresses the view that beliefs about the causes of what happens to the individual have a significant effect on the individual's affective state, expectations about the future, and even the degree to which the individual attempts to shape that future. Therefore, for the female adolescent's self-concept development three dimensions are often observed as the locus of control, stability and control ability of the situation. If the girl considers the cause of her success to be external (for example, the school or the teachers), she will believe herself to be unable to change for the better (Mngadi in Fejgin 1995:19).

However, Hackett, Casas, Betz and Rocha-Singh (1992:527) propose that academic self-efficacy is the better predictor of academic performance. As far as female adolescent learners are concerned, academic achievement is only to be understood when the female learners anticipate some advantages of the achievement. That means that the female adolescent learners will put in more effort when they are aware of the benefits of the learning situation (Hackett et al 1992:528; Schmuck & Schmuck 1994:23; Reach 1994:213). Thus teachers need to point these out.

### **2.3.6.3        *The effect of the self-concept on academic achievement***

Finally, as has been put forward in the previous sections of this chapter, the female adolescent's self-concept is fairly positive when there are several role models available (Bornholt & Cooney 1993:75; Cheung 1993:247; Fuller, Hua & Snyder 1994:350) and when self-perceptions are enhanced (Pollard 1993:334; Reach 1994:214). However, Orr and Dinur (1995:3) conclude that parents with significantly lower social status often have female adolescent students who have significantly lower self-esteem. Self-esteem (or self-concept) is a construct that social scientists use to describe how worthy individuals believe they are. This self-esteem is stable and it affects such growth parameters as behavioural adjustment, emotional well-being and school achievement (Orr & Dinur 1995:6).

It is also amazing how some female adolescent learners manage to attain high grades regardless of harsh conditions (Isaacs & Duffus 1995:204). The reason given for such success is that when the self-esteem is coupled with self-efficacy, (the mechanism for taking action based on

personal beliefs and attitudes), it provides very important fuel for achievement (Isaacs & Duffus 1995:205).

Probably the female adolescent learners who does well under hard conditions does so because of the goals they set for themselves. An example is that of the Asian American female learners who are said to have overcome cultural barriers and excelled in the United States schools because of their sense of duty to their parents and high collective identity (Watts-Warren 1995:16). Another possible reason for the female adolescent's success against all odds could be the use of sex-role identity turned into an advantage by the female adolescent learners. It is considered that sex-role identity is an important variable in influencing academic achievement, but the direction of this influence is said to be unclear (Olds & Shaver, in Basu & Chakroborty 1996:256). It is also observed that a feminine self-concept reduces performance in both boys and girls (Smith et al 1998:247). However, Dembo (1994:444) as well as Schneider and Coutts (1985:48) warn researchers that the result of different paths toward identity development may cause researchers using criteria for assessing the identity of males to conclude erroneously that some female learners may lag in their achievement development. It should be noted that often the researchers' findings lead to stereotyping sex roles and to misunderstanding aspect of the interpersonal identity formation which relates to females as opposed to the interpersonal aspects that relates to males (Dembo 1994:444).

## **2.4 SUMMARY**

The chapter can be summarised as follows:

### **2.4.1 The societal educational goal expectations as cultural factors**

The review has given a general overview of the literature. Dorsey (1996:74) and Buseri (1987:580) have carried out extensive research on inequalities of educational opportunities between boys and girls in Zimbabwe, but they have not stated categorically if there is a significant relationship between societal educational goal expectations and the academic achievement of female adolescent learners.

Dorsey has fully endorsed the view that parental expectations have a strong influence on the female learners' academic achievement but the relationship has still to be studied without attending to inequalities. It has been understood in the review that when parental and societal educational aspirations are positive, the girl's academic achievement is enhanced but whether there is a significant relationship or not is still to be determined.

#### **2.4.2 Vocational goal expectations as cultural factor**

While female learners have realised the advantage of education (Watts-Warren 1995:16), there still remains a need to find out if there is a significant relationship between vocational goal expectations and the female learners academic achievement. It may also be necessary to determine the Chimanimani adolescent female learner's goal structure (mastery or performance).

#### **2.4.3 The family's socio-economic status as a cultural factor**

Previous researchers have not given a conclusive opinion on the role of the family's socio-economic status on the academic achievement of female learners in low-income families. There are conflicting findings where some female learners excel when the socio-economic status is low. On the other hand, most researchers have concluded that lower working class families have female learners whose educational aspirations are also low. There is a need to find out if there is a significant relationship between the family's socio-economic status and the female learner's academic achievement.

#### **2.4.4 Child-rearing practices and sex-roles as cultural factors**

Most researchers have concluded that structures of family life, authoritarianism, autonomy, acceptance and expectations can influence the academic achievement of an adolescent female learner but this observation has not been uniform among the different cultures. Some researchers believe that child-rearing practices are governed by the ground motive of a community and if the ground motive is borrowed it becomes complicated in that if academic achievement is not part of the community's ground motive the female learners' scholastic

achievement may be a problem to measure. The study will attempt to find out if there is a significant relationship between female adolescent learners' academic achievement and child-rearing practices.

#### **2.4.5 The school environment as a cultural factor**

The literature review has not given full answers to the role of the school environment as a cultural factor. Female adolescents from some minority cultures are said to have excelled in a foreign school environment. This study attempts to find out if there is a significant relationship between Chimanimani female adolescent learners' academic achievement and the school environment.

#### **2.4.6 The female adolescent's self-concept**

The literature review has again left many areas unclear. The life-world may limit or promote a person's cultural development (Dekker & Van Schalkwyk 1989:3). The review has also indicated that female learners are influenced by non-academic self-concept. Some researchers have stated that there seems to be no consistent cross-age causal relationship between attitudes and achievement (Wareing 1990:372), however, a positive self-concept is often thought to be influential in academic achievement. This study aims to determine if there is a significant relationship between the female learners' academic achievement and the self-concept.

In the next chapter, the research design to determine the nature of the relationship between cultural factors and academic achievement of female secondary school learners is explained.

## CHAPTER 3

### RESEARCH DESIGN

#### 3.1 INTRODUCTION

The main research question (see par. 1.3) is:

*Is there a significant relationship between certain cultural factors and academic achievement of female secondary school learners?*

In the previous chapter, the literature was reviewed with the purpose of attempting to find out what the relationship is between certain cultural factors and academic achievement of female secondary school learners. The literature review enabled the researcher to identify some variables in the form of home environment, school and learner variables. A summary of the literature study was made in section 2.4.

This chapter is devoted to the research design and thus the methods that will be followed in researching for a solution to the research problem. The research design is often understood to be the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control variance. In this plan, an outline of the investigator's actions, methods to be used together with analysis of data are to be included (Kerlinger 1986:300).

#### 3.2 PROBLEM STATEMENTS

From the literature study, the following specific research problems may be stated:

1. *Is there a significant relationship between certain **cultural** factors and academic achievement of secondary school female learners?*

Cultural factors include: home environment variables; school environment variables and learners' variables.

Academic achievement includes: achievement in mathematics and English.

2. *Is there a significant relationship between home environment variables and academic achievement of secondary school female learners?*

Home environment variables include: societal goal attitudes; family socio-economic status; exposure to role models; child-reading practices and family expectations.

Academic achievement includes: achievement in mathematics and in English.

3. *Is there a significant relationship between school environment variables and academic achievement of secondary school female learners?*

School environment variables include: curriculum and teachers' attitudes.

Academic achievement includes: achievement in mathematics and English.

4. *Is there a significant relationship between learners' variables and academic achievement of secondary school females learners?*

Learner variables include: self-concepts; gender role concept; attitudes and aspirations.

Academic achievement includes: achievement in mathematics and English.

5. *Is there a significant difference between the academic achievements of diverse age groups of secondary school female learners?*

Academic achievement includes: achievement in mathematics and English.

The six groups are: 15 years or less; 16; 17; 18; 19 as well as 20 years and above.

6. *Is there a significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups?*

Academic achievements include: achievement in mathematics and English.

The monthly income of the mother and father separately are determined in 6 categories of Zimbabwean dollars including: none; 1 - 999\$; 1 000 - 1 999\$; 3 000 - 6 999\$; 7 000 and above \$ as well as, "I don't know".

### 3.3 STATEMENT OF THE HYPOTHESES

(H<sub>01</sub>) There is no significant relationship between certain cultural factors and academic achievement of secondary school female learners.

(H<sub>1</sub>) There is a significant relationship between certain cultural factors and academic achievement of secondary school female learners.

Cultural factors include: home environment variables; school environment.

Variables and learner variables.

Academic achievement includes: achievement in mathematics and English.

(H<sub>02</sub>) There is no significant relationship between home environment variables and academic achievement of secondary school female learners.

(H<sub>2</sub>) There is a significant relationship between home environment variables and academic achievement of secondary school female learners.

Home environment variables include societal goal attitudes; family socio-economic status; exposure to role models; child-rearing practices and family expectations.

Academic achievement includes: achievement in mathematics and English.

(H<sub>03</sub>) There is no significant relationship between school environment variables and academic achievement of secondary school female learners.

(H<sub>3</sub>) There is a significant relationship between school environment variables and academic achievement of secondary school female learners.

School environment include: curriculum and teachers' attitudes.

Academic achievement includes: achievement in mathematics and English.

- (H<sub>04</sub>) There is no significant relationship between learner variables and academic achievement of secondary school female learners.

Learner variables include: self-concepts; gender role concept; attitudes and aspirations.

Academic achievement includes: achievement in mathematics and English.

- (H<sub>05</sub>) There is no significant difference between the academic achievements of diverse age groups of secondary school female learners.

- (H<sub>5</sub>) There is a significant difference between the academic achievements of diverse groups of secondary school female learners.

Academic achievement includes: achievement in mathematics and English.

The six groups are: 15 years or less; 16; 17; 18; 19 as well as 20 years and above.

- (H<sub>06</sub>) There is no significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups.

- (H<sub>6</sub>) There is a significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups.

Academic achievement includes: achievement in mathematics and English.

The monthly income of the mother and father separately are determined in six categories including: none; 1 - 999\$; 1 000 - 2 999\$; 3 000 - 6 999\$; 7 000\$ and above as well as "I don't know".

### **3.4 THE TARGET POPULATION AND THE SAMPLE**

#### **3.4.1 The target population**

The target population will consist of all the female secondary school learners in the fourth form in the secondary schools of the Chimanimani District. There are about 16 secondary schools in the Chimanimani district. There are four boarding schools while the rest are day secondary schools. The main reason for using the Form IV female learners was to make use of a group which had the language skills to understand the questionnaire. Moreover, the Form IV learners may have acquired somewhat stable self-concepts.

#### **3.4.2 The sample and sampling procedure**

The sample of learners will be randomly selected. The names of all 16 schools will be put in a container, shuffled and ten schools blindly selected so that there are at least 400 respondents. An attempt was also made to achieve proper discriminating sampling (Strauss & Corbin 1990:187). However, it is well-known that when sampling errors are committed there may be bias and some accuracy problems resulting (Greenfield 1996:129).

### **3.5 INSTRUMENTS**

#### **3.5.1 Questionnaire**

While questionnaires are not the only type of data collection instrument (Rudestam & Newton 1992:70), in this study a questionnaire was used to collect data on independent variables such as female learner variables, school environment variables and home environment variables. Other important data will also be determined for example, age and socio-economic background will be used as moderator variables. The same questionnaires will be used for the dependent variables, namely achievement in English and in mathematics. Respondents were asked to indicate their average grades in mathematics and English in diverse categories (see Appendix A). These two subjects were chosen because mathematics is traditionally seen as within the male domain, and languages as within the female domain.

### **3.5.2 Appropriateness of the questionnaire**

The use of a questionnaire is appropriate as stated by Leedy (1993:187) who says that a questionnaire can be an instrument for “observing data beyond physical reach of the observer.” The questionnaire can be used with a small group (pilot study) and to ensure quality this can be tested again and again (Leedy 1993:188).

### **3.5.3 Organisation of the questionnaire**

The researcher used closed form and structured items in the design of the questionnaire to encourage and achieve effective qualifications. The variables range from learner, home and school variables. An attempt was made to separate widely the items from each variable to make sure the respondents will be traced for consistence in the giving of opinions (see Appendix B). The questionnaire first focussed on the moderator variables, then the dependent variables and finally the independent variables. (See Appendix A).

### **3.5.4 General focus of the items in the questionnaire**

The questionnaire has 107 items, consisting of 5 statements based on background information (the moderator and dependent variables). The independent variables consisted of 51 positive statements and 51 negative statements. The items were developed from the literature review in Chapter 2. The items are spread as follows:

(a) Learner variables

These items deal with learners' self-concepts, gender role concepts, attitudes and aspirations and are formulated according to the literature review in paragraphs 2.3.2; 2.3.5.2; 2.3.6.2 and 2.3.6.3.

(b) Home environment variables

The items attempt to measure the societal aims/goals, the family's socio-economic status, exposure to role models, child-rearing practices and family expectations. These

were formulated according to paragraphs 2.3.1; 2.3.2; 2.3.3; 2.3.4.1; 2.3.4.2; 2.4.2 and 2.4.5.

(c) The school environment variables

The items measure the school curriculum and teachers' attitudes.

They were formulated according to paragraphs 2.3.5.1; 2.3.5.2 and 2.3.5.3.

### **3.5.5 Procedure**

At first a pilot study was conducted to finalise the questionnaire (see 3.5.6). Thereafter, the researcher sought permission for administering the questionnaires in secondary schools of the Chimanimani district from the Ministry of Education, Sports and Culture (see Appendices C and D). The sampling has been described in paragraph 3.4.2. Since the questionnaires were mailed to schools, the researcher was not personally present when the respondents completed the questionnaires to handle any problems. Consequently, an accompanying letter gave instructions to the teachers who would be present when the questionnaires were completed. Self-addressed envelopes were included for the return of the questionnaires.

### **3.5.6 Pilot study**

The researcher used one class of Form IV females from one of the schools not involved in the research for a pilot study. The girls in the pilot group were from the same age group as in the sample so that the researcher could determine to what extent they understood the questions and this enabled the researcher to gauge as to whether some of the questions should be reformulated. The researcher was able to determine the length of the time the learners needed to answer the questionnaire through the pilot study. From the pilot study, the biographical items 2 and 3 on parental income (see Appendix A) presented problems where both parents were dead or divorced. Thus the teachers who were present when the learners completed the questionnaires had to be informed of the need to explain to the respondents that "other guardians" may replace "parent" on the questionnaire.

### 3.9 SUMMARY

This chapter outlined the research problems and hypotheses and provided details of the research design. The compilation of the questionnaire and where the items were derived from were also explained. Finally some statistical techniques to be used in testing of the hypotheses were identified.

In the next chapter, the results are given and discussed.

## CHAPTER 4

### RESULTS AND DISCUSSION OF RESULTS

#### 4.1 INTRODUCTION

The stated aim of this study was given in paragraph 1.4.1 where the aim was to identify the relationship of selected cultural factors and academic achievement of female secondary school learners. The specific aim for this study is to determine if a significant relationship, exists between certain cultural factors and academic achievement of female secondary school learners in the Chimanimani district of Bulawayo (Zimbabwe).

A review of the literature on the importance of selected cultural factors such as socio-economic status, learners' gender role concept, curricula, attitudes towards teachers, child-rearing practices, societal goals, and the self-concept was given in paragraphs 2.3.1-2.3.6.3. The variables outlined above assisted the researcher to formulate the hypotheses stated in section 3.3. The measuring instrument was a questionnaire (Appendix A). In the previous chapter the research design to test the hypotheses was explained. In this chapter, the results of the data collected by means of the questionnaire are outlined and discussed as the hypotheses are tested.

#### 4.2 PROBLEM STATEMENTS

1. *Is there a significant relationship between certain cultural factors and academic achievement of secondary school female learners?*

Cultural factors include: home environment variables; school environment variables and learner variables.

Academic achievement includes: Achievement in mathematics and English.

2. *Is there a significant relationship between home environment variables and academic achievement of secondary school female learners?*

Home environment variables include: societal goals and family expectations; family socio-economic status; exposure to role models; and child rearing practices.

Academic achievement includes: Achievement in mathematics and English.

3. *Is there a significant relationship between school environment variables and academic achievement of secondary school female learners?*

School environment variables include: Curriculum and teachers' attitudes.

Academic achievement includes: achievement in mathematics and English.

4. *Is there a significant relationship between learner variables and academic achievement of secondary school female learners?*

Learner variables include: self-concept; gender role concept; attitudes and aspirations.

Academic achievement includes: achievement in mathematics and English.

5. *Is there a significant difference between the academic achievements of diverse age groups of secondary school female learners?*

Academic achievement includes: Achievement in mathematics and English.

The six age groups are: 15 years or less, 16; 17; 18; 19 as well as 20 years and older.

6. *Is there a significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups?*

Academic achievement includes: achievement in mathematics and in English.

The monthly income of the mother and father separately are determined in six categories of Zimbabwean dollars including: none; \$1 - \$999; \$1000 - \$2 999; \$3 000 - \$6 999; \$7 000 and more as well as "I don't know".

### 4.3 NULL-HYPOTHESES

- (H<sub>01</sub>) There is no significant relationship between certain **cultural** factors and academic achievement of secondary school female learners.
- (H<sub>02</sub>) There is no significant relationship between **home** environment variables and academic achievement of secondary school female learners.
- (H<sub>03</sub>) There is no significant relationship between **school** environment variables and academic achievement of secondary school female learners.
- (H<sub>04</sub>) There is no significant relationship between female **learner** variables and academic achievement of secondary school female learners.
- (H<sub>05</sub>) There is no significant difference between the academic achievements of diverse **age** groups of secondary school female learners.
- (H<sub>06</sub>) There is no significant difference between the academic achievements of secondary school female learners from diverse **socio-economic** groups.

### 4.4 RESULTS

Ten schools were included in this study. Of these, only one school is a boarding school surrounded by a rural community. The other nine schools are day rural secondary schools. All secondary schools are co-educational. The district of Chimanimani as a whole has about 20 co-educational secondary schools. The results are presented in 21 tables.

#### 4.4.1 Biographical detail

##### 4.4.1.1 *Ages of the female learners who completed the questionnaire*

The ages of the female learners appear in table 1.

**Table 1** Frequencies and percentages of diverse age groups

<b>AGE GROUP</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
15 or less	8	2.0
16	94	23.0
17	161	40.0
18	102	25.5
19	24	6.0
20 and above	11	2.8
<b>TOTAL</b>	<b>400</b>	<b>100.0</b>

According to table 1, the majority of female respondents came from the 17 year olds (40%) followed by the 18 year olds (25.5%).

**4.4.1.2** *Parental income: father's monthly income*

Table 2 illustrates the monthly income of the respondents' fathers.

**Table 2** Frequencies and percentages of fathers with diverse monthly incomes

<b>MONTHLY INCOME</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
None	115	28.8
\$1 - \$999	33	8.3
\$1 000 - \$2 999	62	15.5
\$3 000 - \$6 999	86	21.5
\$7 000 and above	102	25.5
"I don't know"	2	.5
<b>TOTAL</b>	<b>400</b>	<b>100.0</b>

Table 2 indicates that the majority of female learners' fathers (29%) had no systematic income. On the other hand there is a large group of female learners whose fathers (26%) incomes are above \$7 000.

#### 4.4.1.3 Parental income: mothers' monthly income

The respondents' mothers had incomes as illustrated by table 3.

**Table 3** Frequencies and percentages of mothers with diverse monthly incomes

MONTHLY INCOME	FREQUENCY	PERCENT
None	238	59.5
\$1 - \$999	59	14.8
\$1 000 - \$2 999	31	7.8
\$3 000 - \$6 999	49	12.3
\$7 000 and above	21	5.3
"I don't know"	2	.5
<b>TOTAL</b>	<b>400</b>	<b>100.0</b>

As indicated in table 3 the majority of mothers (60%) do not have any income.

#### 4.4.1.4 Achievement in mathematics

The females' achievement in mathematics appear in table 4.

**Table 4** Frequencies and percentages of learners with diverse scores in mathematics

SCORE RANGE	FREQUENCY	PERCENT
0 - 19%	54	13.5
20 - 39%	119	29.8
40 - 59%	125	31.3
60 - 79%	62	15.5
80% and above	40	10.0
<b>TOTAL</b>	<b>400</b>	<b>100.0</b>

In table 4 about a third of female respondents (31%) have scores in mathematics ranging between 40-59 percent. Secondly were female learners (30%) with scores ranging between 20-39 percent in mathematics.

#### 4.4.1.5 Achievement in English

The female's achievement in English is presented in table 5.

**Table 5** Frequencies and percentages of learners with diverse scores in English

SCORE RANGE	FREQUENCY	PERCENT
0 - 19%	9	2.25
20 - 39%	42	10.5
40 - 59%	163	40.75
60 - 79%	146	36.5
80% and above	40	10.0
<b>TOTAL</b>	<b>400</b>	<b>100.0</b>

Table 5 shows that a large majority of female learners (77%) had scores in English ranging between 40-79 percent.

#### 4.4.2 The null-hypotheses

The null-hypotheses are “the basic tools in inferential statistics and are generally rejected or accepted at the one percent or five percent levels of significance” (Gumede 1989:98).

##### 4.4.2.1 Null-hypothesis 1 ( $H_{01}$ )

There is no significant relationship between certain cultural factors and academic achievement of secondary school female learners.

Cultural factors include: home environment variables; school environment variables and learner variables.

Academic achievement includes: achievement in mathematics and English.

To test this hypothesis, a Spearman correlation was calculated. The results appear in table 6.

**Table 6 Correlations and significance of the correlations between cultural factors and academic achievement**

VARIABLES	SPEARMAN CORRELATION	SIGNIFICANCE
Home environment & score in mathematics	•110	P<0.05
Home environment & score in English	•105	P<0.05
School environment & score in mathematics	•149	P<0.01
School environment & score in English	•148	P<0.01
Learners variables & score in mathematics	•152	P<0.01
Learners variables & score in English	•234	P<0.01

As already stated the statistical technique used to test the null-hypothesis is the Spearman correlation coefficient. After the three independent variables have been correlated with academic achievement in English and mathematics the results in table 6 indicate that the null-hypothesis may be rejected on the five percent level of significance or on the one percent level of significance for all correlations. Thus there is a significant correlation between home environment and academic achievement in mathematics as well as in English (on the 1% or 5% level of significance). These correlations are positive although very low.

The correlation of learner variables with scores in English was the highest. However, the calculated value of •234 can qualify as moderate (Rudestam & Newton 1992:110).

There is also a significant correlation between school environment variables and academic achievement in mathematics as well as in English (on the 1% level of significance): both of these correlations are positive but very low.

For all of the above mentioned the correlations are positive. This implies that the more positive home and school environment variables as well as learner variables, the better the achievements of the girls.

#### 4.4.2.2 Null-hypothesis 2 ( $H_{02}$ )

There is no significant relationship between home environment variables and academic achievement of secondary school female learners.

Home environment variables include: societal goal attitudes; the family's socio-economic status; exposure to role models; child-rearing practices and family expectations.

Academic achievement includes: achievement in mathematics and in English.

To test this hypothesis, a Spearman correlation coefficient was calculated. The results appear in table 7.

**Table 7 Correlations and significance of the correlations between home environment variables and academic achievement**

VARIABLES	SPEARMAN CORRELATION	SIGNIFICANCE
Societal & family expectations & score in mathematics	•030	P>0.5
Societal & family expectation & score in English	•118	P<0.05
Family socio-economic status & score in mathematics	•075	P>0.05
Family socio-economic status & score in English	•109	P<0.05
Exposure to role models & score in mathematics	•132	P<0.01
Exposure to role models & score in English	•030	P>0.05
Child-rearing practices & score in mathematics	•088	P>0.05
Child-rearing practices & score in English	•063	P>0.05

According to table 7, the null-hypothesis may be accepted as the value of correlation is insignificant. This means that:

- There is no significant correlation between societal and family expectations, and academic achievement in mathematics, but there is a significant correlation between

- societal and family expectations, and academic achievement in English (on the 5% level of significance). However, this correlation is low. Both correlations are also positive.
- There is no significant correlation between the family's socio-economic status and academic achievement in mathematics. However, there is a significant correlation between the family's socio-economic status and academic achievement in English (on the 5% level of significance). Both correlations are positive but very low.
  - There is a significant correlation between exposure to role models and achievement in mathematics. However, an insignificant correlation for English and exposure to role models was determined. This means that we can reject the null-hypothesis (on the 1% level of significance) for the correlation between exposure to role models and mathematics achievement. The null-hypothesis for English achievement and exposure to role models is not rejected. Both correlations are positive but very low.
  - There is no significant correlation between child-rearing practices and achievements in mathematics as well as in English: both correlation are positive but insignificant. However, Bryan and Cramer (1990:168) are of the opinion that interpretations of weakness and strength of the values of the correlation represent just general rules of thumb.

For all of the above-mentioned the correlations mean that the more positive societal and family expectations and the family's socio-economic status, the better the girls achieve at English at school. Moreover, the more the girls are exposed to appropriate role models, the better they achieve in mathematics. The opposite is also true.

#### **4.4.2.3      *Null-hypothesis 3 ( $H_{03}$ )***

There is no significant relationship between school environment variables and academic achievement of secondary school female learners.

School environment variables include the curriculum and teachers' attitudes.

Academic achievement includes achievement in mathematics and in English.

To test this hypothesis, a Spearman correlation coefficient was calculated. Table 8 illustrates the results.

**Table 8 Correlations and significance of the correlations between school environment variables and academic achievement**

VARIABLES	SPEARMAN CORRELATION	SIGNIFICANCE
Teacher attitudes & score in mathematics	•093	P>0.05
Teacher attitudes & score in English	•107	P<0.05
Curriculum & resources & score in mathematics	•176	P<0.01
Curriculum & resources & score in English	•150	P<0.01

After calculating the correlations as indicated in table 8, the null-hypothesis is retained for correlation between teacher attitudes and achievement in mathematics. However, for the other correlations, the null-hypothesis is rejected on the five percent level of significance or on the one percent level of significance as indicated by table 8. This means that:

- There is no significant correlation between teacher attitudes and achievement in mathematics, but there is a significant correlation between teacher attitudes and achievement in English (on the 5% level of significance). Moreover, both correlations are positive although very low.
- There is a significant correlation between curriculum and resource variables and achievement in mathematics as well as in English (on the 1% level of significance). Both correlations are positive but very low.

The abovementioned indicates that the more positive teacher attitudes and the curricula are regarding gender issues for girls, the better they achieve in English and mathematics. The opposite is also true: the more negative teacher attitudes and curricula regarding gender issues for girls, the poorer their achievements.

#### **4.4.2.4 Null-hypothesis 4 ( $H_{0d}$ )**

There is no significant relationship between female learner variables and academic achievement of secondary school female learners.

Learner variables include self-concepts; gender role concepts; attitudes and aspirations. Academic achievement includes achievement in mathematics and in English.

The results of the calculated Spearman correlation appear in table 9.

**Table 9 Correlations and significance of the correlations between learner variables and academic achievement**

VARIABLES	SPEARMAN CORRELATION	SIGNIFICANCE
Gender role concept & score in mathematics	•084	P>0.05
Gender role concept & score in English	•173	P<0.01
Learners' attitudes & aspiration & score in mathematics	•104	P<0.05
Learners' attitudes and aspirations & score in English	•141	P<0.01
Learners' self-concepts & score in mathematics	•162	P<0.01
Learners' self-concepts & score in English	•213	P<0.01

According to table 9, there is no significant correlation between gender role concept and score in mathematics. Thus the null-hypothesis may be retained. For all the other correlations the null-hypothesis is rejected on the one percent level of significance or on the five percent level of significance for the correlation between learners' attitudes and aspirations with achievement in mathematics.

This means:

- There is no significant correlation between gender role concept and achievement in mathematics. The null-hypothesis is retained in this regard. However, the null-hypothesis is rejected on one percent level of significance for gender role concept and achievement in English. Both correlations are positive but very low.
- There is a significant correlation between female learners' attitudes and aspirations, and achievements in mathematics as well as in English (on the 5% level of significance and the 1% level of significance). Both correlations are positive but very low.

- There is a significant correlation between female learners' self-concepts and achievements in mathematics as well as in English (on the 1% level of significance). Both correlations are positive and very low.

The positive correlations indicate that as the one variable increases, the other variable (achievement) also increases and vice versa.

#### 4.4.2.5 Null-hypothesis 5 ( $H_{05}$ )

There is no significant difference between the academic achievements of diverse age groups of secondary school female learners.

Academic achievement includes achievements in mathematics and in English.

The six age groups are: 15 years or less; 16;17;18;19 and 20 years and older.

To test this hypothesis, cross tabulations of frequencies were done and a chi-square value calculated. Tables 10 to 13 indicate the results.

**Table 10 Cross tabulation of age and score in mathematics**

Age group	SCORES IN MATHEMATICS					Total
	10 - 19%	20 - 39%	40 - 59%	60 - 79%	80% & above	
15 or less		3	2	1	2	8
16	12	29	26	19	8	94
17	23	47	54	23	13	161
18	11	31	33	13	14	102
19	6	6	7	4	1	24
20 & above	2	3	2	2	2	11
<b>Total</b>	<b>54</b>	<b>119</b>	<b>124</b>	<b>62</b>	<b>40</b>	<b>400</b>

Missing frequency: 1

While the 17 year olds comprise the biggest number of respondents according to table 10, they have the greatest number of low achievers (43%).

**Table 11 Chi-square and significance of differences of mathematics scores of diverse age groups**

Chi-square value	df	Significance
15.326	25	P>0.05

According to table 11, the null-hypothesis cannot be rejected. This means that there is no significant difference between the mathematics scores of diverse age groups of female learners in the sample.

**Table 12 Cross tabulation of diverse age groups and score in English**

Age group	SCORES IN ENGLISH					Total
	0 - 19%	20 - 39%	40 - 59%	60 - 79%	80% & above	
15 or less			3	2	3	8
16	3	4	33	41	13	94
17	4	22	71	47	17	161
18	2	12	39	43	6	102
19		4	13	7		24
20 & above			4	6	1	11
<b>Total</b>	<b>9</b>	<b>42</b>	<b>163</b>	<b>146</b>	<b>40</b>	<b>400</b>

Table 12 shows the spread of achievement in English for the diverse age groups. After calculating a chi-square value the results are as follows in table 13.

**Table 13 Chi-square and significance of differences in English scores of diverse age groups**

Chi-square value	df	Significance
29.727	20	P>0.05

The calculated chi-square value of 29.727 and significance value of  $p > 0.05$  indicate that there are no significant differences in English scores of diverse age groups. The null-hypothesis is therefore accepted.

#### 4.4.2.6 Null-hypothesis 6 ( $H_{06}$ )

There is no significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups.

Academic achievement includes achievement in mathematics and in English.

The monthly income of the father and mother separately are determined in six categories including: none; \$1 - \$999; \$1 000 - \$2 999; \$3 000 - \$6 999; \$7 000 and above as well as, "I don't know."

The results of testing this hypothesis appear in tables 14 to 21.

**Table 14 Cross tabulation of average scores in mathematics and monthly income of the father**

Father's monthly income	SCORES IN MATHEMATICS					Total
	0-19%	20-39%	40-59%	60- 79%	80% & above	
None	18	36	38	15	8	115
\$1 - \$999	8	13	12	-	-	33
\$1000 - \$2 999	8	23	18	8	5	62
\$3 000 - \$6 999	11	28	29	13	5	86
\$7 000 +	9	18	26	26	22	102
I don't know	1	1	1	-	-	2
Total	54	119	124	62	40	400

Missing value: 1

Table 14 gives an indication of female learners' achievement from diverse socio-economic backgrounds in mathematics. The chi-square statistical value appears in table 15.

**Table 15 Chi-square and significance of differences of mathematics scores of females with diverse income groups of fathers**

Chi-square value	df	Significance
50.533	25	P<0.01

According to table 15, the null-hypothesis may be rejected on the one percent level of significance. This means that there are significant differences in mathematical achievements of female learners of diverse income groups of fathers (on the 1% level of significance). Table 14 shows a tendency for girls with fathers who earn more, to achieve higher marks in mathematics.

For average scores in English, the results were as follows:

**Table 16 Cross tabulation of average scores in English and the monthly income of the father**

Father's monthly income	SCORES IN ENGLISH					Total
	0-19%	20-39%	40-59%	60-79%	80% & above	
None	5	11	41	49	9	115
\$1 - \$999	2	4	11	15	1	33
\$1000 - \$2 999	-	6	33	16	7	62
\$3 000 - \$6 999	2	17	32	29	6	86
\$7 000 +	-	4	45	36	17	102
I don't know	-	-	1	1	-	2
Total	9	42	163	146	40	400

Table 16 shows the number of female learners in each category. A chi-square value was calculated as presented in table 17.

**Table 17 Chi-square and significance of differences of English scores of females with diverse income groups of fathers**

Chi-square value	df	Significance
35.855	20	P<0.05

According to table 17, the null-hypothesis may be rejected on the five percent level of significance.

This means that there are significant differences between the English scores of diverse income groups of fathers (on the 5%- level of significance).

When girls' achievement in mathematics was cross-tabulated with monthly income of mothers, the results are as presented in table 18.

**Table 18 Cross tabulation of average scores in mathematics and monthly income of mothers**

Mother's monthly income	SCORES IN MATHEMATICS					Total
	0-19%	20-39%	40-59%	60- 79%	80% & above	
None	31	81	83	29	14	238
\$1 - \$999	13	20	20	3	3	59
\$1000 - \$2 999	4	10	10	6	1	31
\$3 000 - \$6 999	3	6	7	21	12	49
\$7 000 +	3	2	3	3	10	21
I don't know	-		1			2
Total	54	119	124	62	40	400

Missing value: 1

To test for significant differences, a chi-square statistical technique was employed. The result appear in table 19.

**Table 19 Chi-square and significance of differences of mathematics scores of females with diverse income groups of mothers**

Chi – square value	df	Significance
299.953	25	P<0.01

According to table 19, the null-hypothesis may be rejected on the one percent level of significance. This means that there are significant differences in mathematics scores of girls of diverse income groups of mothers (on the 1% level of significance): 50 percent of those girls that score 80 percent and more have mothers that earn the highest salaries.

**Table 20 Cross tabulation of average score in English and monthly income of mother**

Mothers' monthly income	SCORES IN ENGLISH					Total
	0-19%	20-39%	40-59%	60- 79%	80% & above	
None	7	26	97	92	16	238
\$1 - \$999	2	8	30	17	2	59
\$1000 - \$2 999	-	5	13	10	3	31
\$3 000 - \$6 999	-	2	18	15	14	49
\$7 000 +	-	1	4	11	5	21
I don't know	-	-	1	1	-	2
Total	9	42	163	146	40	400

As table 20 shows, only 13 percent of the female learners' scores in English fall below 40 percent whereas 43 percent of the female learners achieved low scores in mathematics. The chi-square statistical technique was used to test the significance of the above differences. Results appear in table 21.

**Table 21 Chi-square and significance of differences of English scores of females with diverse income groups of mothers**

Chi – square value	df	Significance
41.276	20	P<0.01

According to table 21, the null-hypothesis may be rejected on the one percent level of significance. This means that there are significant differences in English achievement between girls with diverse income groups of mothers. The calculated chi-square value of 41.276 on the one percent level of significance would be regarded by Clarke and Dawson (1999:168) to be of a high significance.

#### **4.5 SUMMARY**

This chapter was primarily concerned with the processing and interpretation of the results based on the questionnaire data. The questionnaires were completed by Form IV secondary school female learners in the Chimanimani district of Bulawayo. The pupils were all from rural communities.

The final chapter includes the conclusions and recommendations. Limitations of the study are also highlighted.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 INTRODUCTION

The aim of this study is to determine if there is a significant relationship between certain cultural factors and academic achievement of female secondary school learners in the Chimanimani district of Bulawayo, Zimbabwe (see section 1.4.1). The aim now is to make a synopsis of the findings by revisiting the null-hypotheses. Conclusions will be drawn from (a) the literature review and (b) the empirical research. Recommendations will also be made in this chapter and some limitations highlighted.

The researcher will attempt to revisit the rationale for this study when recommendations are given (Greenfield 1996:246)

#### 5.2 NULL-HYPOTHESES

The following six null-hypotheses determined the research design:

- Null-hypothesis 1 ( $H_{O1}$ ). There is no significant relationship between certain **cultural** factors and academic achievement of secondary school female learners.
- Null-hypothesis 2 ( $H_{O2}$ ). There is no significant relationship between **home** environment variables and academic achievement of secondary school female learners.
- Null-hypothesis 3 ( $H_{O3}$ ). There is no significant relationship between **school** environment variables and academic achievement of secondary school female learners.
- Null-hypothesis 4 ( $H_{O4}$ ). There is not significant relationship between **learners** variables and academic achievement of secondary school female learners.
- Null-hypothesis 5 ( $H_{O5}$ ). There is no significant difference between academic achievements of diverse **age** groups of secondary school female learners.

- Null-hypothesis 6 ( $H_{06}$ ). There is no significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups.

### **5.3 CONCLUSIONS**

#### **5.3.1 Conclusions from literature study**

##### **5.3.1.1 *Cultural factors and academic achievement: in general***

In paragraph 2.3 various authors indicated that cultural factors regarding gender roles influenced the achievements of females, for example, some cultures would use girls (but not boys) as cheap labour in their homes. They would therefore not motivate them to study hard. Thus there are often lower expectations of girls to achieve than of boys. They are also expected to be submissive.

##### **5.3.1.2 *Home environment variables***

From paragraphs 2.3.3 and 2.4.3 the following conclusions can be drawn: for poor families, girls are an asset as they provide cheap labour around the house. They are child-minders, house-keepers or assistant income earners. Thus these girls do not achieve well at school. Girls from higher income homes with parents who are literate, tend to achieve better.

##### **5.3.1.3 *School environment variables***

From paragraph 2.3.5 the following conclusions are made: a curriculum that promotes gender equality can encourage females to achieve better. Moreover, they can be encouraged to achieve better in subjects that were previously seen as male domains. The teachers' attitudes towards the girls and boys in their classes also play a role. Teachers who believe in gender equality and have high expectations of girls, will motivate them to do well.

#### **5.3.1.4**     *Learner variables*

Girls often have poor academic self-concepts because parents expect less of them (see paragraph 2.3.6.2). The African culture gives more importance to male children. In addition teachers often hold gender stereotypes. They often believe girls are not logical or quick to grasp concepts. This may lead to lower academic achievements, especially in mathematics which is seen as a male domain.

### **5.3.2**     **Conclusions from the empirical study**

#### **5.3.2.1**     *Null-hypothesis 1*

The first and general null-hypothesis was: there is no significant relationship between certain cultural factors and academic achievement of secondary school female learners. The null-hypothesis is rejected on the five percent level of significance for the correlations between home environment variables and achievements in mathematics and in English; and on the one percent level of significance for the correlations between school environment or learner variables and academic achievements in mathematics and English. The calculated correlations (Spearman correlations) were positive. While these correlations ranged from very low to low, they were still significant and led to the following conclusion: the more positive the home and school environment regarding gender equality, the better the girls achieve in mathematics and English, and vice versa. The more positive the girls' gender role or self-concepts and attitudes, the better the achievements in English and mathematics and vice versa.

#### **5.3.2.2**     *Null-hypothesis 2*

The second null-hypothesis stated that there was no significant relationship between home environment variables and academic achievement of secondary school female learners.

The correlations between societal or family expectations and achievement in mathematics were insignificant. The same applies to the correlation between exposure to role models and achievement in English. The correlations between child-rearing practices and achievements in

both mathematics and English were also insignificant. However, societal or family expectations and the family's socio-economic status correlated significantly with English achievements; exposure to role models also had significant correlations with mathematics achievement. Although the correlations were low, they were positive. This implies that the higher the family's expectations or socio-economic status, the better the girls achieve in English, and vice versa. The more the girls were exposed to positive gender role models, the better they scored in mathematics. The opposite was also true.

#### **5.3.2.3 Null-hypothesis 3**

The null-hypothesis was stated as follows: there is no significant relationship between school environment variables and academic achievement of secondary school female learners. The testing of the hypothesis was done by means of a Spearman correlation coefficient statistical technique. The results were as follows: the teacher's attitudes did not correlate significantly with achievement in mathematics, and so the null-hypothesis was accepted. However, the teacher's attitudes correlated significantly with achievement in English. The content of the curriculum correlated significantly with achievements in both mathematics and English thus, the null-hypotheses were rejected on the five percent level of significance and on the one percent level of significance respectively. The correlations are very low, but positive. Thus the following conclusions are made: the more the teachers and the curriculum promote gender equality, the better the girls achieve in English. The opposite is also true.

#### **5.3.2.4 Null-hypothesis 4**

The fourth null-hypothesis was stated as follows: there is no significant relationship between learner variables and academic achievement of secondary school female learners. The null-hypothesis was rejected in five instances, namely: for the correlations between gender role concept and achievement in English; learners' attitudes and aspirations and mathematics and English; achievement and learners' self-concepts and achievements in mathematics and in English. These correlations range from very low to low but all are positive. This implies that the more positive the gender role concepts (of equality) of the girls, and the more positive their attitudes and self-concepts as girls, the better the achievements; and vice versa.

#### **5.3.2.5 Null-hypothesis 5**

This was stated as follows: there is no significant difference between the academic achievements of diverse age groups of secondary school female learners. The null hypothesis was accepted as the calculated chi-square values of 15.326 and 29.727 were insignificant for both mathematics and English achievement. This means the diverse age group scores more or less the same in the two subjects.

#### **5.3.2.6 Null-hypothesis 6**

This final null-hypothesis was stated as follows: there is no significant difference between the academic achievements of secondary school female learners from diverse socio-economic groups. Chi-square values were calculated for four instances: diverse achievements in mathematics and in English for girls with mothers and also with fathers of diverse incomes. In all four instances the chi-square values were significant. Thus the last null-hypotheses may be rejected on the one percent level or on the five percent level of significance.

### **5.3.3 Conclusions from both the literature study and the empirical study**

There are significant correlations between cultural factors and academic achievements of female secondary school learners as follows:

#### **5.3.3.1 The home environment**

If families have high expectations of their daughters, the daughters achieve well. Poor, illiterate parents have lower expectations and their daughters do not achieve well. This is especially true for achievement in English. Positive role models of gender equality correlate significantly with achievement in mathematics: the more positive the role model, the better the achievement in mathematics. Child-rearing practices did not significantly correlate with achievements in mathematics or English. This is probably because mathematics and English are foreign to a rural community. On the other hand, Zimbabwe is going through cultural change. It could be

that the female child is slowly becoming aware of her place in society. Therefore child-rearing practices may change with the following generation and significantly influence achievement of girls.

#### **5.3.3.2 *The school environment***

Curricula as well as the teachers themselves can influence the expectations and ultimately the achievements of girls. Curricula which promote gender equality and teachers who do not differentiate between boys and girls, may motivate girls to believe in themselves and their ability to do well. The more curricula promote gender equality, the better girls achieve in mathematics and in English. On the other hand, the more curricula promote gender inferior roles for girls, the less they achieve in mathematics and in English. In addition, the more positive teachers' attitudes towards girls, the better their achievements.

#### **5.3.3.3 *The female learner***

The female learners' gender role concepts influence their achievements: it is interesting to note that their achievements in English correlate significantly with their gender role concept, but with mathematics this is not the case. This may be because many female learners may still see mathematics as within the male domain. However, the more positive girls' self concepts, attitudes and aspirations, the better they achieve in mathematics as well as in English. Similarly, the more negative their self-concepts, attitudes and aspirations, the less they achieve in mathematics and in English.

### **5.4 RECOMMENDATIONS**

From the conclusions and the individual items of the questionnaire, the following can be recommended.

#### **5.4.1 Recommendations for improving the academic achievement of secondary school female learners**

- The female child must face the challenges of life. It is not enough merely to hope to pass a grade/form and feel satisfied by that, because the world we live in today is full of challenges. There is a need for girls to study challenging subjects. The best advice for girls and those that work with girls is that they should cultivate confidence in them.
- The female learner must diligently utilise her linguistic capabilities to penetrate the language of mathematics.
- When teachers seem to by pass girls in the question and answer sessions in the class, the female learner should initiate questions in the classroom. Females should learn to be less submissive.
- Female secondary school learners must attend careers day functions in order to orient themselves to all career options, including those that are traditionally seen as male domains.

From the conclusions, the following recommendations can also be made.

#### **5.4.2 Recommendations for parents**

- Parents play important roles in the education and socialisation of their daughters. Thus the following can be recommended: cultural practices where females are in charge of the whole household while the male children are participating in sports, need to be abolished. Parents need to practice gender equality at home.
- The female respondents indicated (on questionnaire items focussing on child-rearing practices) that a good number of parents did not approve of equal education opportunities for female and male children in the family. Such views will result in a negative self-concepts in female learners. Therefore parents must encourage all children to be educated regardless of gender. Parents must cherish high expectations of their daughters.
- Parents should be involved in their secondary school female learners' home work after school. Thus girls are encouraged to achieve well.

- Parents need to be appropriate role models for their children. Fathers need to treat mothers as equals. Mothers need to handle themselves with confidence and not to be submissive.

#### **5.4.3 Recommendations for the school**

Basola (1991:179) has emphasised the teachers' role in the achievement of the female learner when she wrote that the schools cannot become "girl friendly" unless teachers work to make them so. Thus, teachers have a major role to play if the female secondary school learner is to achieve well in all school subjects.

- Female teachers have to be positive role models for girls. Male teachers should treat all female teachers as equals.
- Teachers should not promote gender negative cultural practices. One example is to task female secondary learners as the only ones to sweep the classrooms.
- The school should try to motivate female secondary school learners to study all subjects that are important for a rich and balanced education. Thus, subjects should not be associated with a particular sex.
- School administrators should strive for a gender balanced teaching staff so that female secondary school learners have appropriate role models. Teacher training colleges must produce teachers who are more informed on gender issues.
- Workshops or staff-development courses should include issues pertaining to female secondary school learners in particular.
- The school curriculum should promote gender equality. If school textbooks promote gender stereotypes, this should be discussed in school. Issues around gender roles should be debated in class.
- Schools should analyse learners' activities in order to intervene if there are gender problems identified (HMSD 1996:12).

#### **5.4.4 Recommendations for future research**

- Correlations determine relationships and not cause and effect. Thus further research is needed to try and re-evaluate the differences that were established in this empirical study.
- Qualitative research methods may give valuable insights into how practices are experienced by female secondary school learners.

#### **5.5 LIMITATIONS OF THIS STUDY**

- Respondents do not always follow instructions with the result that many questionnaires were rejected. This may be because of limited language proficiency of many of the female secondary school learners.
- Some of the questionnaires were not returned to the researcher, while others were not posted back in time. This is one of the biggest disadvantages of mailed questionnaires.
- Respondents were not always motivated to complete questionnaires. Consequently, some respondents just scribbled responses without serious consideration of the item. For some, questionnaires are frustrating (Denscombe 1998:106).
- Many learners are uncertain of the salaries of their parents. Thus the answers to the two questions focussing on this aspect, may be unreliable.
- The schools that were used in this research were mostly in rural communities. The three well established boarding schools in Chimanimani did not respond to all forms of requests made in connection with this research.
- The sample was not very big - only 400 learners participated. With a bigger sample more significant results may have been obtained.
- The results of this research are relevant to the small district of Chimanimani in Bulawayo. That community tends to be semi-monolingual (Ndau) and it is not appropriate to generalise results to the whole of Zimbabwe. However, because the culture is similar to other cultures in rural areas of Zimbabwe, the results are useful for those cultures.
- No qualitative techniques were used so that the phenomena was not investigated in-depth.

## **5.6 RATIONALE OF THIS STUDY REVISITED**

This empirical study's results on the relationship between cultural factors and the female secondary school learner are essential for understanding the changing role of females in the cultural melting pot of Zimbabwe.

- Education policy makers and curriculum developers would benefit by considering the results.
- The Zimbabwe Schools' Examinations Council (ZIMSEC) may have to revise items in examinations that deal with gender aspects. Items should not be gender biased. Gender inclusive language should also be used:

## **5.7 SUMMARY**

Academic achievement at school is the basis for all future learning. Female secondary school learners, especially those in the fourth form, are preparing to graduate into tertiary education.

- Therefore, a study that seeks to enhance the academic achievement of these learners is essential. If the recommendations of this study can be implemented it may neutralise negative influences of certain cultural practices. Hence, female learners may achieve better at school. However, gender issues need further investigation.

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APPENDIX A

QUESTIONNAIRE

This is not a test but a questionnaire for which you have all the answers.

- a) Please write only in the provided box in the right hand margin. Only the response number is needed.
- b) For each item indicate your answer by means of a single number with a pencil on the appropriate number in the box to the right hand column.

[1] [2] [3] [4] [5] or [6]

(For office use)

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[1-3]

- 1. Age: 15 years or less = [1]
- 16 years = [2]
- 17 years = [3]
- 18 years = [4]
- 19 years = [5]
- 20 years = [6]

	4
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- 2. Monthly income father:
- None = [1]
- \$1 - \$999 = [2]
- \$1 000 - 2 999 = [3]
- \$3 000 - \$6 999 = [4]
- \$7 000 – and above = [5]
- I don't know = [6]

	5
--	---

3. Monthly income of Mother

None	=	[1]
\$1 - \$999	=	[2]
\$1 000 - 2 999	=	[3]
\$3 000 - \$6 999	=	[4]
\$7 000 – and above	=	[5]
I don't know	=	[6]

6

4. In Mathematics tests/examinations, I usually score:

9-19%	=	[1]
20-39%	=	[2]
40-59%	=	[3]
60-79%	=	[4]
80% and above	=	[5]

7

5. In English tests/examinations, I usually score:

0-19%	=	[1]
20-39%	=	[2]
40-59%	=	[3]
69-79%	=	[4]
80% – and above	=	[5]

8

Directions for the rest of the questionnaire:

- a) The rest of the questionnaire contains statements on how you feel about the activities in your school, class and home. There are no right or wrong answers. Your opinion is what is wanted.
- b) Think about how well each statement describes your feeling about school academic progress and the ways teachers, parents, friends and classmates behave towards you and your opinion of them all. Indicate your answers by means of writing the appropriate number in the right hand margin.
- c) The numbers have the following meanings:
  - 5 = Strongly agree
  - 4 = Agree
  - 3 = Undecided
  - 2 = Disagree
  - 1 = Strongly disagree
- d) Provide your choice to each statement truthfully:
- e) Make sure that you indicate your answer in the space to the same number as that of the question.
- f) Do not write down your name on the answer sheet.
- g) Thank you for your co-operation.

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

6. It is equally important for boys and for girls to do well at school.	9
7. Even though I am a girl my future is bright.	10
8. I succeed at whatever I set myself to do in class.	11
9. School prepares us for feminine occupations.	12
10. Our teachers are enthusiastic.	13
11. My parents want me to do well.	14
12. My mathematics teacher is an expert.	15
13. I feel I am a person of worth at least on an equal plane with others.	16
14. I want to do well at school.	17
15. Girls do the classroom sweeping.	18
16. A girl can do well at school and be feminine.	19
17. What we learn at school is interesting.	20
18. Our school offers technical as well academic subjects for boys and girls on an equal basis.	21
19. My desire is to be a scientist after school.	22
20. As long as I Just pass I am satisfied.	23
21. I know I am weak at school work.	24

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

22. I dislike English Language at school.  25
23. Boys achieve better than girls.  26
24. Girls are better at relationship than at school work.  27
25. There are lots of benefits to learning.  28
26. The only important thing about good grades is possible good lobola.  29
27. Boys and girls grasp mathematical concepts equally well.  30
28. I must do well because my parents are poor.  31
29. Girls are for the kitchen and not for school.  32
30. I want to do well at school to show that I can do it.  33
31. According to society it is more important for boys than for girls to achieve.  34
32. I am well known for my high school achievement.  35
33. My parents need me as a house-keeper.  36
34. In my home we have a television set.  37
35. In general I am hopeless as a learner.  38
36. I owe it to my parents to do well at school.  39

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

37. Girls should be more seen than heard.	40
38. Text books indicate that school is more important for boys than for girls.	41
39. My mother is a peasant farmer.	42
40. It is meaningless to do well at school.	43
41. It is unimportant to do well at school.	44
42. My father is educated.	45
43. English is an important subject.	46
44. I always get into trouble at school.	47
45. My parents allow me to make my own choices.	48
46. In class teachers do not entertain girls' questions.	49
47. I need to work hard to obtain a good education.	50
48. I want to leave school as soon as possible.	51
49. My father is the only bread winner.	52
50. Boys and girls are of equal importance in society.	53
51. As a girl I find it worthless to work hard in school because my future is hopeless.	54
52. Our school has a good library.	55
53. My parents need me to look after small brothers and sisters.	56

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

54. I desire school work when it make me think.  57
55. My parents give me what I need for school.  58
56. My parents are uninvolved with my school work.  59
57. I hate mathematics at school.  60
58. Our teachers like boys and girls to share classroom tasks.  61
59. In our school boys and girls learn all subjects equally.  62
60. My mother is educated.  63
61. Boys and girls should be educated equally.  64
62. Girls study home making at school.  65
63. My parents expect girls to take up subject that are related to Domestic Science.  66
64. According to my family girls are equal to boys.  67
65. My parents seldom/never involve me in decision making.  68
66. My family think education is important.  69
67. Boys as well as girls have equal logical abilities.  70
68. My parents feel a girl should stay dependent on her husband.  71
69. Society expects more of boys than of girls.  72
70. My parents are uninterested in my school work.  73
71. Parents who are poor would rather send boys to school than girls.  74

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

72. Boys are better at mathematics than girls.	75
73. My family is educated.	76
74. Educating girls is educating a nation.	77
75. My father is a peasant farmer.	78
76. Trying to achieve high grades in school is unimportant for my future.	79
77. In our school we think mathematics is important.	80
78. Mathematics is a waste of time.	81
79. If I work hard I shall do well at school.	82
80. If I do well in school I will marry well.	83
81. My parents expect boys and girls to share domestic tasks equally.	84
82. As a girl it is more important to do well in Domestic Science lessons only.	85
83. In our school boys and girls share sweeping tasks equally.	86
84. My parents help me with my homework.	87
85. In class teachers only talk to boys.	88

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

86. All subjects should be taught in an African Language.	89
87. Teachers think that boys are better at school work than girls.	90
88. Our school has enough and appropriate textbooks for all subjects in school.	91
89. My parents expect boys and girls to have equal job opportunities.	92
90. It is more important for girls to learn how to work in the kitchen.	93
91. Boys and girls have equal employment opportunities.	94
92. Teachers think that girls should study subjects that relate to feminine skills.	95
93. My parents expect girls to serve people whenever there is a gathering.	96
94. Teachers think that only girls should be responsible to sweep the classroom.	97
95. My parents often look at my school work.	98
96. Our teachers see boys and girls as equal learners.	99
97. Teachers ignore girls' questions in class.	100
98. My parents expect girls to be educated.	101

Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
5	4	3	2	1

99. Teachers favour boys in the class.	102
100. My mother is a domestic worker.	103
101. Our teachers show no favouritism of boys over girls.	104
102. My parents expect girls to serve the family.	105
103. Teachers treat boys and girls equally.	106
104. Our teachers are always punctual at work.	107
105. My English language teacher is very good.	108
106. It is important to learn English.	109
107. My parents expect girls to be less educated than boys.	110

APPENDIX B

SUMMARY OF THE QUESTIONNAIRE INDICATING EACH VARIABLE:

HOME ENVIRONMENT VARIABLES

Variable	Item number	Scoring direction
Societal goal attitudes and family expectations	11; 36; 81; 89; 98	Positive
Societal goal attitudes and family expectations	31; 63; 68; 69; 93; 107	negative
Family socio-economic status	34;	positive
Family socio-economic status	28; 71	negative
Exposure to role models	42; 60; 73	positive
Exposure to role models	39; 49; 75; 100	negative
Child-rearing practices	45; 55; 64; 66; 84; 95	positive
Child -rearing practices	33; 53; 56; 65; 70; 102	negative

SCHOOL ENVIRONMENT VARIABLES

Variables	Item number	Scoring direction
Teacher attitudes	10; 12; 96; 101; 103; 104; 105	Positive
Teacher attitudes	15; 85; 46; 87; 92; 94; 97; 99	Negative
Curriculum	17; 18; 52; 58; 59; 77; 83 88;	positive
Curriculum	38; 62; 78;	negative

## LEARNER VARIABLES

Variable	Item number	Scoring direction
Gender role concept	6; 7; 16; 27; 50; 61; 67; 91	positive
Gender role concept	9; 23; 24; 29; 37; 72; 80; 82; 90	negative
Learner's attitude and aspirations	14; 19; 25; 43; 47; 54; 74; 106	positive
Learner's attitude and aspirations	20; 22; 26; 40; 41; 48; 51; 57; 76; 86	negative
Learner's self-concept	8; 13; 32; 30; 79	positive
Learner's self-concept	21; 35; 44	negative

TOTAL : 51 POSITIVE STATEMENTS  
51 NEGATIVE STATEMENTS