Decision Points and Dilemmas in Girls' Schooling and Occupational Aspirations:
Female Secondary Students in Cameroon

by

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Abstract

Although contemporary research on gender and education in Africa has thus far focused on girls' access to education, how and why students choose one academic subject over the other has largely gone unexamined. This study attempts to fill the void by inquiring into the experiences and subject choice-making process of 20 girls from different socio-economic backgrounds in a coeducational secondary school in a quasi-urban town in the South West Province of Cameroon. Through a functional/liberal approach to understanding decision-making, this study draws from status attainment theory, African feminist perspectives on gender, and decision theory and rational choice, to understand the decision-making process of fourth year secondary school girls. Data was collected through participant observation, interviews and a focus group discussion informed by critical feminist ethnographic principles.

The study reveals the girls' consciousness of society's low expectations for their success in areas of science and technology, and as a result they enact modes of confronting such challenges. It further discloses that the girls' subject choice decisions are progressive but complex and contradictory. For example, most of the participants described explicit aspirations in seizing opportunities in non-traditional female occupations to enhance their labor market advantage and improve on their future family lives. But these aspirations are tempered with characteristics of the student-personal self. Also revealed in the study, is the major influence gender continues to have on girls' subject choice decisions, which are a function of their socio-cultural modeling both at home and school. This is further determined to be a composite of the socio-economic status of the parents, which was found to dictate the girls' progressive occupational aspirations.

The findings have implications for policy makers, curriculum theorists and teachers in Cameroon. Four implications that emerged from this study are the need to: 1) develop equitable education polices; 2) imagine curricula that are grounded in indigenous knowledge and supportive of local culture; 3) apply pedagogical approaches that validate women's ways of knowing; and 4) re-evaluate the economic contributions that women make in small-scale commerce and agricultural production.

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List of Abbreviations

A/L	Advanced Level
ADEA	African Development Educational Association
BEPC	Brevet d'Etudes du Premier Cycle
BGS	Bilingual Grammar School
CFA	Communite Franc Africaine
CIDA	Canadian International Development Agency
FEMSA	Female Education in Mathematics and Science in Africa
GCE	General Certificate Examination
IFAD	International Fund for Agricultural Development
MINEDUC	Ministry of National Education
O/L	General Certificate Examination Ordinary Level
SSA	Sub-Saharan Africa
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Children's Emergency Funds

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Dedication

Is it sheer good fortune to miss somebody long before they leave you . . .
Tony Morrison

This thesis is dedicated to my beloved daughters, Ebenye, Efosi, and Namondo whom I have missed in many ways and they have missed me while I engaged in my studies. I hope that my spirit and example will be a springboard for their own life adventures. May God permit us to live long enough and not have to leave each other?

CHAPTER ONE

INTRODUCTION

For every Cameroonian student, the fourth year of secondary schooling is vital because at this stage they decide on courses to take that will set their future direction in post-secondary education and careers. Their decisions in form four are to take either arts subjects (history, economics, literature, geography), or the sciences (biology, chemistry, physics, human biology, further mathematics). All secondary students are expected to take mandatory subjects that include: English, French and mathematics. While typically secondary students identify themselves as arts or science oriented, there are some who classify themselves as doing the arts and sciences at the same time. The students who identify with both take some arts subjects such as economics, geography or history and other science subjects such as biology, chemistry, or mathematics. In some cases, students who choose to do the arts and sciences stay away from literature, which is considered one of the main arts subjects and physics, a principal science subject.

This decision point for secondary students is unique in the sense that its occurrence is predictable, but involuntary. It is a pivotal life decision because it determines the subjects a student can take in the high school, the department that the student can be admitted to at the university, and subsequently the occupational paths that are open to that student. On the one hand, this decision appears as though the student simply selects one subject over the other. Hiebert, Donaldson, Pyryt and Arthur (1998) note that decision points are complex and non-linear as individual and social influences shape choices negatively or positively. Also, Young and Collin (1992) confirm that "individuals live at the dynamic intersection of society, culture and economy" (p. 2) hence, students' decision to take one subject and not the other is

made within the socio-cultural, historical and interpersonal context of the individual. Factors such as gender, and the socio-economic and geographic location of the student impact their decision, as well as the cultural and economic resources within the society and the prevailing employment climate (Gaskell, 1992; Young & Collin, 1992).

My investigation of the experiences of Cameroonian girls in their fourth year of secondary schooling reminds me of my own decision point when I was promoted to form four and had to select the subjects that I would take at General Certificate of Education (GCE) Ordinary Level (O/L). It was an evening in the summer of 1984 and my maternal grandmother was visiting. Everyone in the household was sitting in the living room, cracking the freshly boiled peanuts that my maternal grandmother had brought from her hometown of Babajou. It was a happy vacation for me; I was proud of my success in the form three promotion examination and could not wait for the beginning of form four to join the ranks of senior secondary students.

My father broke the silence when he welcomed my grandmother and began commending us, his children, for our success in the promotion examinations that was an indication that we were doing well at school. Out of curiosity my mom who seemed happy at the time requested to know the subjects that I made and by implication the subjects that I was going to take at the GCE O/L. I was delighted to name only the core subjects - history, economics and literature and indicated that I chose them because I wanted to become a television journalist. I looked at my father and then my mother with a smile on my face hoping to pull a smile on their faces and see them take pride in my decision. To my dismay, my father grimaced and hesitated to say a thing. Because I understood my dad well and had a cordial relationship with him, I asked him "Why? What?"

He maintained calm but as he spoke he was emphatic and looked relieved to share his point of view. He said that as a Christian child I should not yearn to become a journalist. There was complete silence in the room as everyone was eager to hear the point he had to make. I was perplexed but wanted to know why journalists could not be Christians or vice versa. My father told me that Cameroonian journalists were usually coerced by the administration of the media organization that has special political interests and in most instances, forces the journalists to support the media organization's interest and not an objective view. He warned that if I wanted to serve God, journalism was not a good option for me. "I do not want you to be in a position where you have to lie," he reiterated. I remember thinking that my father's ideas were extreme and inconsiderate.

Given all I know now about the controversies surrounding the media, media organizations and journalists, I no longer see my father's point of view as being inconsiderate. Although he did not want me to become a journalist, I appreciate that his expectations for me did rise beyond the sexist socialization that prevailed in the Cameroonian society. He planned to support me to travel abroad for a university education. Therefore, he valued my education and saw me as girl child with potential. My mother, whom I thought was afraid of losing me, expressed a very different concern. She was afraid that traveling abroad would postpone marriage, family and might reduce my chances of having children, as age will not be on my side. I remember her warning that using contraceptive pills might pose problems in the long run.

I spent form three third term holidays reflecting on the right occupation to pursue while respecting the concerns of both my mother and father. As the first child in a classic African family of seven children and considering that my father was to retire in three years

time, I thought that getting into a professional school would be the best option. It would provide me with skills that were immediately marketable. It would also give me the opportunity to secure a job, earn money and assist my dad in raising my siblings. After exploring a number of options, I thought that teaching would be most lucrative because I believed it would provide me the opportunity to become a professional woman, wife, and dutiful mother who could teach her own children. I remember hearing from friends and relatives that female teachers make very good wives since they spend a lot of time at home with their children. I saw teaching as a profession that provided me with the prospects for further studies and that required constant research. Although I did not have to change the subjects that I planned to select in form four in order to qualify for teacher training, my occupational aspirations and plans for the future were completely altered after listening to my parents' advice.

I entered the Teachers' Training College in 1988 and graduated a year later with a Diploma in Elementary Education. My decision was informed by the viewpoints of my parents, friends, relatives and myself about which profession was best suited for a woman. It was also influenced by my social obligation to help my siblings and the prospects of continuing my education later.

The decision making process as illustrated by my personal experience is multifaceted. To be able to make an informed decision requires that students have experience with long term planning, well-developed preferences, and recognize the opportunities available to support them. One would also expect that the students have an idea of some of the constraints they are likely to encounter. Donaldson and Dixon (1995) caution that students do not always make course selection based on long term planning or objectives but rather based on

institutional influences, peer relations and their perceived ability for success. Furthermore, Gray and Herr (1998) affirm that the process of decision-making,

> Is not confined to a certain period in life but begins in the early life of the child and reoccurs throughout one's life span, changing the questions of importance to the individual in response to institutional, social, and economic pressures and to developmental tasks that the individual must negotiate at times of transition from one stage to another. (p. 130)

Education is therefore a lifelong process whereby students are viewed as following varying trajectories into higher education and the world of work (Hiebert et al., 1998). During this life course, each student "makes rational choices in the light of the values they have internalized, their knowledge of the context at any given time, and the life chances they anticipate enjoying in the future" (Somerville, 2000, p. 8).

Secondary students in Cameroon make crucial life decisions about subject choices quite early in their lives. In their fourth year of secondary school, these students are adolescents, 14-18 years old, and in a stage of life characterized by unclear preferences and career goals. Furthermore, they are also commonly uninformed about post-secondary institutions and the labour market. Despite this, the Ministry of National Education (MINEDUC) in Cameroon expects them to make the complex decision of choosing one academic stream over the other. It is evident that the ability of students to reach any meaningful decision at this stage in their life is not only difficult but could very much involve a complex interplay of gender, socio-economic background, and schooling experiences. This decision can be especially challenging for female students who often carry the burden of domestic work, and have in mind their future roles as wives and mothers (Mfou, 1997;

Njeuma, 1995). Students are expected to make these decisions despite of having minimal information, experience and comprehension of how their choices may compromise their participation in certain academic specializations and the world of work.

The Research Problem

The literature on gender and schooling in Africa provides a number of interesting insights about the reasons for gender differences in enrolment patterns of secondary school students. Researchers and funding agencies interested in socio-economic development have attempted to understand gender and schooling in terms of the socio-economic importance of female education and the home and school factors that account for gender differences in academic participation, persistence and achievement. Education and development experts who advocate for increased female participation in formal schooling argue that education for females is an essential part, if not a determining factor in the national economic development process (Seidman & Anang, 1992; Visvanathan, Duggan, Nisonoff & Wiegersma 1997). Schooling provides the credentials that enable girls and boys to enter modern occupations and expand the scale of their commercial, productive and agricultural activities. While Blakemore and Cooksey (1981) hypothesize that the skills and qualifications that are obtained through schooling are directly sold in the job market with the most qualified getting the best jobs, the high wage gains enjoyed by those in areas of science (medical doctors) and technology (computer engineering) exemplify the hierarchical nature of the labour market.

Other researchers examine the home factors such as parents' education and occupation, and socio-economic standing of the parents (Nfou, 1997), and school factors such as gender, curriculum content, school climate (Hari, 1998; Torto, 1998) that affect girls' access to and participation in different subjects. Findings indicate that many girls in Sub-

Saharan Africa are not enrolled in school. When girls do enrol, they drop out more frequently than boys and their academic performance compared to that of boys is poor at every level of schooling (FEMSA, 1998; Hartnett & Heneveld, 1993; Leigh-Doyle, 1991; MINEDUC, 1990). Noteworthy, only a few girls enrol in science and technology areas (Hari, 1998). While these studies identify home and school factors as accounting for gender differences in participation, persistence and academic achievement, they have failed to examine these disparities from the perspective of the female students concerned. The data sources in many of these studies involve perspectives from parents, teachers, school authorities, and community leaders.

Little research has examined girls' experiences of schooling and how their experiences influence their academic and career choices in Cameroon and Africa as a whole. Although extensive research has been done on gender and education in Africa and organizations like African Development Educational Association (ADEA) have created working groups such as Female Education in Mathematics and Science in Africa (FEMSA) to enhance female participation in science and technology, little research has been done on how female students make subject choices. It is apparent that several factors affect female students' decisions to select one academic specialization over the other. I conjecture that girls from different socio-economic backgrounds perceive their educational experiences differently through the kinds of interactions they have at home, school and in the society as a whole, and these different perceptions influence their school and career aspirations. Consequently, girls' constructions of schooling and how they make subject choices must be understood in order to integrate girls into areas of science and technology and into the socio-economic development process.

Purpose of the Research

This research examines how female form four students (ages 14 to 18) construct, interpret and respond to gender differences in an urban coeducational secondary school in Cameroon. Decisions to specialize in either the arts or sciences sets students on different paths into post-secondary education and/or the labour market. It focuses on: 1) how female form four students of different socio-economic backgrounds construct their educational experiences, achievements, and aspirations; 2) how these experiences and achievements influence their future subject choices; and 3) the ways the girls' aspirations and experiences are negotiated within the context of the school.

This study seeks to understand girls' schooling experiences in one school in Cameroon, Africa. It examines how the schoolgirls in form four (fourth year) of secondary schooling make subject choices. The inquiry explores girls' career aspirations and their construction of the decision process about future schooling and career paths. Hence, this inquiry aims to make visible the cultural, social, and economic factors that shape girls' schooling experiences and influence their interest in and choice of different academic specializations. The primary purpose is to expose and draw attention to the gender specific experiences of girls from different socio-economic backgrounds as they make their subject choices and subsequently, their decision to participate in different areas of the wage economy.

Significance of the Study

Little research has been done in Cameroon in particular and Africa as a whole to examine girls' schooling experiences, and how they impact the subject choices they make.

The focus of current literature on gender and schooling in Cameroon is shifting from concerns with access, retention and completion rate of girls at all levels of schooling to their absence in certain areas of specialization (Njeuma et al., 1999; Okojie, 2001; World Bank, 1993, 1997). Girls' participation in science and technology is especially advocated as an alternative to the traditional roles of daughter, wife, and mother for women (Sohoni, 1994). Hence, this study extends the current research by examining the school as a contested site where gender and power issues nestle in cultural beliefs about girls and women and are transmitted and reproduced in the culture of schooling.

This inquiry strives to comprehend the dynamics of schooling from the perspective of the female students. It views the school as a gendered site with the potential to continue or change gender divisions and oppressions of the society. In order to expose and challenge the power relations embedded in schooling discourses, and consequently in the formal employment sector, this study moves beyond documenting and deploring female enrolment in "feminine" areas, to understanding and identifying female form four students' agency in negotiating their way into different academic specializations based on their own emotional, intellectual, social and material needs.

This research also seeks to understand the dynamics involved in form four girls' decision-making about subject choices so that educators can intervene to enhance their equitable treatment in relation to the labour market. It is concerned with form four girls' practical needs and interests and the ways opportunities to support them can be enhanced. According to Nfou (1997):

> Because girls perform poorly in mathematics and science, teachers and parents tend
>
> to stream them into non-mathematical, non-science and non-technical subjects and

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careers, with the result that girls fail to acquire knowledge and skills that are important even for work that women normally do in health care, food cropping, environmental management and energy conservation. (p. vii)

The absence of girls in areas of science and technology in secondary and post-secondary years not only begs for an examination into why girls are not studying the sciences, but also questions how they are making subject choice decisions. This study will augment the literature on the decision making process about girls' subject choices and assist guidance counsellors, curriculum developers, teachers and educationists in Cameroon and Africa to understand the gender disparities in subject choice and career aspirations, and ways of integrating girls into areas where they are absent.

Overview of the Dissertation

Chapter 1 presents the background of this inquiry, an introduction to the problem of form four girls in Cameroon choosing one academic subject over the other, the purpose of the study, and its significance. Chapter 2 begins the literature review and provides an overview of gender and occupational roles from pre-colonial times to the present in Cameroon. It examines the impacts of Western culture through education, religion, and the colonial administration and the way these institutions relegated women to occupations that were extensions of their domestic roles. Also, focusing on Cameroon and Sub-Saharan Africa, it reviews literature concerning the socio-cultural factors that influence girls' schooling choices.

Chapter 3 continues the literature review, examining Western theories related to subject choice decisions and occupational aspirations and considering the relevance of these

theories to the schooling choices and decisions of girls in Cameroon. The last section of the chapter provides a discussion of African feminist perspectives, and gender relations within the African society, and their implications for schooling and socialization. Chapter 4 focuses on the research methodology, and describes data sources, the research site, and participants. Chapter 5 presents the findings from this inquiry. Chapter 6 provides the summary and discussion of findings, implications of this research and conclusions.

CHAPTER TWO

UNDERSTANDING GENDER, EDUCATION AND OCCUPATIONAL ROLES IN PRE-COLONIAL AFRICAN SOCIETIES TO PRESENT

A discussion of girls' decision-making about subject choices and career aspirations that does not take into account how contemporary education came to be, and how it prepared African men and women for the world of work deprives the Western reader and some African scholars of an understanding of the current problems that affect the education of African girls. This review focuses on the region identified as Sub-Saharan Africa (SSA) because the countries in this region share some common cultural, historical and colonial experiences. The cultural diversity of Africa needs to be understood if one wants to bring African peoples into the international scene. As Goode (1970) contends, it is because the West has ignored these diversities that institutions of Western origin such as education and health continue to face the daunting tasks of redressing problems of inequitable participation of females and males in the formal economy and political decision-making process.

This chapter provides an overview of three historical eras to demonstrate how the advent of formal schooling transformed women's role within African societies. The linguistic and cultural diversity of the region presents a complex milieu and a challenging task of examining the situation of women even within a single country like Cameroon. A look at the literature on gender, education and occupational roles of women from pre-colonial to post-colonial Africa reveals multiple and diverse perspectives on the status of women, and also on the effect of colonialism on the education of African girls. I contend that the current problems of girls' access to education, and their absence in certain academic specializations have their roots in the marginalization of women in indigenous African societies. The

colonial and post-colonial periods further buttressed this marginalization.[1] This marginalization of women led to their low participation in formal schooling and higher education. The colonialists *conveniently* assumed some of the cultural attitudes in Africa that gave preference, as far as special privileges were concerned, to male children. Such preferences were used to reinforce gender discrimination embedded in European cultures while ignoring the existing economic roles African women had played within their families and society at large. Importantly, the social devaluation of women's work and the introduction of patrilineal ownership of economic resources transformed previous social and familial structures leading to the marginalization of women. Using the pre-colonial, colonial and post-colonial periods, I illustrate the kind of education that was provided for women during each phase, and link the education to the roles of women in each era.

Gender, Education And Work During The Pre-Colonial Period

European male anthropologists were among the first writers to examine issues of gender, education and occupational roles in pre-colonial African societies. Early male anthropologists like Evans-Pritchard (1965) and Suttner (1969) characterized "primitive" women as primarily victims in indigenous societies. According to Pritchard and Suttner, indigenous women were mostly engaged in polygamous marriages and responsible for day-to-day running of the household, their children and their husbands, and this meant that they were disadvantaged in public life, subordinated, denigrated and relegated to the domestic sphere. The analysis by early male anthropologists writing about the African continent and its

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[1] The term colonial refers to the historical periods when Cameroon was an occupied territory of Britain and France. Post-colonial refers to the period after formal occupation ended. Occupation took the form of slavery, missionary activity, trading, administering plantations, and sometimes exploration for valuable commodities.

peoples failed to capture the multiple statuses that women held in the private and public realms of indigenous societies. In referring to the Owan societies of Nigeria, Ogbomo (1997) emphasizes that it is not only celebrated females like "Queen Amina of Zaria, Moremi of Ife, Idia of Benin, Madam Tinubu of Lagos, and Madam Aniwuru of Ibadan" (p. 1), who played active roles in public policy in indigenous societies but also ordinary women who were priestesses and those involved in agriculture, fishing, and trading. Quoting Synder and Tadess (1995), Ogbomo (1997) emphasizes that,

> In traditional societies, whilst it cannot be said that all women had equality with men, despite class differences, a balance of economic responsibility did prevail between women and men and the work of both was valued in largely non-competitive division of labor. Parallel gender-based institutions were common in such an environment, and men's and women's groups each managed their own affairs. (p. 94)

Contrary to what the early male anthropologists posited about women's status, Ogbomo contends that it was not only celebrated female personalities who played active roles in indigenous African societies but also ordinary women.

Furthermore, the position of the male anthropologists as seen earlier has produced a new reactionary strand of literature by contemporary African scholars (see Ajayi, Goma & Johnson, 1996; Allman, Geiger & Musisi, 2002; Amadiume, 1987; Arndt, 2002; Lazreg, 1994; Mikell, 1997; Nfah-Abbenyi, 1997; Nnaemeka, 1998; Ogundipe-Leslie, 1994, Oyĕwùmí, 1997; Stamp, 1995), who emphasize that African women have always played an active role in the private and public spheres of indigenous societies. Sudarkasa (1992) and Amadiume (1987) characterize women's roles in indigenous African societies as "complementary" to men's roles. Contemporary African scholars writing on their social

history have therefore provided a different portrait of women's access to indigenous

education, their statuses and their roles within their communities. Talking about the Igbo

gender system, Amadiume (1987) emphasizes that:

> In the household, a wife's domain was a matricentric unit, consisting of herself and
>
> her children; it was a farming unit, with a specific farm. It was also an eating unit; all
>
> the children of one woman ate out of their mother's pot – from one *ekwu*. This was
>
> the unit bound by the closest and the strongest sentimental sibling tie, *nwanne*. The
>
> survival of the unit depended on the mother's resourcefulness, and she expected
>
> loyalty and gratitude from her children in return. (p. 36)

The dynamism, creativity and important domestic role that women played in indigenous Igbo

society is similar to what happened in most SSA countries prior to their contact with the

West. Arndt (2002) confirms that women were the nucleus of the family and "seem to hold

many reins in family and communal life" (p. 28). She further posits that in other societies

such as the Ashanti of Ghana and the Yoruba and Igbo societies of Nigeria, women played

active political roles as was evident in the political power they wielded at the time.

On the other hand, some African scholars (Ngoa, 1975; Oyĕwùmí, 1997) maintain

that since gender is historically and culturally bound, "it is best understood as an institution

that establishes patterns of expectations for individuals, orders social processes of everyday

life, and is built into major social organizations of society such as economic, ideology, the

family and politics" (Oyĕwùmí, 1997, p. 39). Precisely because of this, gender cannot be

theorized in a cultural vacuum. To this end, they explain that the ranking of individuals in

indigenous societies was not primarily gendered but rather on the basis of seniority as

defined by one's relative age. For example, seniority according to Oyĕwùmí is not just a

matter of privilege but is also about responsibility; it is highly relational in the sense that no individual permanently occupies a junior or senior position. It all depends on where and who is present in a given situation. While Oyěwùmí provides an excellent illustration of seniority as an organizing principle in indigenous societies, I maintain that gender was an overriding category that determined social class and status. In a situation where men and women of the same age group were present, they were not only further divided by their biological sex, but when it came to performing tasks that required physical strength or deciding who has the final say in settling disputes, men were the ones whose decisions prevailed. Aina (1998) notes that though women in matrilineal societies of Africa may have had some advantages "there is still no doubt about the political dominance of men" (p. 70).

Conversely, the Cameroonian-born sociologist, Henry Ngoa (1975) defends that "La femme African n'etait pas opprime," meaning the African woman has never been oppressed. He endeavors to justify his position by asserting that the African woman does not lose her maiden name in marriage and can pass it on to her son, as is the case with some ethnic groups in Cameroon. Ngoa echoes the popular Negritudist ideology developed by Aimé Cesairre in 1939 and later popularized by other Francophone African scholars like Léopold Sédar Senghor in 1964 who aimed at painting a picture of liberated, valued, and celebrated African woman prior to the advent of contact with the west. This is not to undermine the Negritude movement as an important ideological tool for enlightening the black intelligentsia about the decolonization process, but such willful intellectual dishonesty among the educated African males at the time was an attempt to couch the African woman's social position which in many respects is a gross misrepresentation. I recognize that women occupied some active roles in pre-colonial African societies but often their participation was limited to the private

sphere and never brought to the public sphere, despite the possibility of their being the latent drivers of the social, economic and political structures of their societies. Hence, men took the credit and relegated women to roles that often required the *female nurturing qualities*. The men wielded power as seen in their primary control of public life, decision-making, politics, women and their children. This becomes evident when one examines the underlying philosophies and principles of indigenous education.

Ajayi et al. (1996) and Gumme (2000) maintain that indigenous education was far more than socialization. Although there were no clear-cut gradations, it is possible to classify it into three levels. The first level of indigenous African education could be considered as the basic or elementary level where children were involved in moral education and socialization into kinship groups and the larger community. At this level, the child learned how to count and appreciate the subtleties of the language from the mother, other adults within the household, and the community. The method of instruction was integrated in the day-to-day activities of the family, clan and ethnic community. It occurred between mother/father and child, child and other older siblings if that applied, and children of the same age group. Lessons were taught through riddles, games, fables, story telling, observation and mimicking of speech and behaviour in an informal experience based way.

The second level of indigenous education took the form of apprenticeship, whereby girls and boys were socialized along gender lines to acquire skills for a specific occupation that was needed in community building. Within this apprenticeship level, some amount of formal education was organized by secret societies that took the form of training in educational institutions responsible for puberty rites, age or grade associations (Ajayi et al. 1996).

The third level, which could be considered higher education, existed only for a select few. As Ajayi et al. (1996) assert:

Selection of candidates was rather complex including membership of *particular families* [italics added] and some evidence of special vocation or calling by the divinities concerned. Essentially, the training was through attachment and apprenticeship. *Favoured children* [italics added] accompanied parents or grandparents to meetings where they learned the art of public speaking and observed customary ways of dealing with issues. Acolytes were initiated into orders of priesthood and trained to progress from one degree to the other. (p. 4)

The previous discussion on indigenous education in Africa reveals that education was a life long process, collaborative and community based. It also consisted of activities that indigenous rulers targeted to meet the immediate societal needs like skills for farming, pottery, fishing, hunting, carving, or trading depending on the ethnic group that one belonged to (Gumme, 2000). Hence, indigenous education in most parts of SSA, and for that matter Cameroon was mostly informal and rooted in the cultural geography of the people.

The discussion provided by Ajayi et al. (1996) on the different levels of indigenous education sheds light on two important issues about the principles behind this educational system. First, higher education within the traditional society was limited to particular families, often the royal families, which suggest that forms of social hierarchy were present, even in traditional African societies. Hence, being born into a particular family determines whether one has access to a certain kind of education. Secondly, the training through attachment and apprenticeship to become for instance a priest or diviner often fell on the

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favoured child (who in the case of most African societies to date, are largely the boys) also reveals that the participation of girls was restricted, if not limited, to the private sphere.

Boserup (1998) and Gumme (2000) maintain that the indigenous pattern of education provided for a process whereby young girls, like boys, were socialized along gender lines and taught skills for sex-specific jobs. Though women's services were crucial for sustaining local and traditional economies, which were mostly agricultural, when women played active economic and social roles in most traditional African societies, it was in areas of agriculture, food processing, marketing, and household chores (Boserup, 1998). Furthermore, the indigenous system had profound effects on the formal European system as preference in schooling was often given to male children due to cultural notions about femininity, poverty, and the traditional preference to educate boys.

Gender, Education, And Work During The Colonial Period

Unlike the indigenous system of education that was integrated and embedded in social surviving and thriving of boys and girls in traditional societies, the European system of education was not grounded in the philosophies and values of indigenous African societies and claimed to provide individual choice and gender neutrality. Such a system served the needs of the colonialists and their indigenous collaborators. The European system of education impacted Cameroon society from the early 1800s until 1960 when independence was achieved. The European educational system marginalized the indigenous culture and educational system because it was linked to economic and political power, and could be accessed by only a few. Education was one of the most crucial institutions during the colonial period because it paved the way for exploitative and colonial relationships between European

traders, administrators, missionaries, and the African peoples. A few Europeans learned the local languages and were able to communicate with Africans directly, but the majority depended on interpreters and mediators. Consequently, European education became a vehicle for recruiting Africans into the mediator role through which indigenous African societies and institutions could be adapted into the colonial mould (Ajayi et al., 1996; Schulman, 1992).

A number of studies of colonial education focus on curricula, ideological foundations and the types of schools that existed during this period. Denise Bouche's *L'enseignement dans les territories français de L'Afrique occidentale de 1817 à 1920* (1975) remains one of the most discussed and cited studies although it provides only a catalogue of changing personnel and fluctuating statistics. Bouche's work provides data on girls' enrolment in the various levels of schooling, curricula and institutions opened for the training of African girls, but his relegation of this discussion to a single chapter does not provide enough insight on the subject. This limited treatment suggests that girls' enrolment and participation in education during the colonial period was not significant enough to merit any in depth discussion. Furthermore, indigenous and colonial decision makers statistically discounted women's re/productive labor. However, women did not cease to work nor did colonialism relieve women of work; women's labor increased and the dividends of the labour decreased. Recent scholarship (Berger & White, 1999; Coquery-Vidrovitch, 1997; Cutrufelli, 1983) on the effects of European colonization on African women reveals that colonialism and capitalism contributed to the further marginalization of women.

Colonial education effected three key areas: 1) colonial administration and services including tax collection, law courts, public works, agriculture and health; 2) mining, finance, commercial enterprise, including farming establishments, production of raw materials,

produce collection, distributive trade, importation and exportation; and 3) missionary activities including evangelization and the provision of western education itself (Ajayi et al., 1996; Allman, Geiger & Musisi, 2002; Berger & White, 1999). As colonial education became an organizing principle for social change within the different colonial territories, the colonizers implemented policies aimed at controlling the pace and direction of "development". According to Albert Sarraut, the Minister of French Colonies in the 1920s:

> The first effect of education is to improve the value of colonial production by raising the level of intelligence among the mass of indigenous workers, as well as the number of skills. It should, moreover, set free and rise above the masses of labourers the elites of collaborators who as technical staff, foremen or overseers, employed or commissioned by the management will make up the shortage of Europeans and satisfy the growing demands of the agricultural, industrial or commercial enterprises of colonization. (Suret-Canale, 1971, p. 380-81)

Sarraut's statements reveal that the education of African women was not seen as crucial to sustain colonial bureaucracy and commerce. Also the few African men who had benefited from missionary education in the early 19th century were enthusiastic about maintaining the status quo because they considered it a prerequisite for obtaining jobs in the different modernized sectors of the economy and above all for joining the new elite class inherited from the colonialists.

Hence, during the colonial period, African women found their prominent traditional economic roles effaced by the introduction of formal education, cash crop economies, and male-breadwinner expectations among other things. As the colonial wage economy attracted men from rural areas to towns, men commanded financial resources that exceeded those of

women. Economic disparities were created between women and men. The wage system also instituted a family system of male breadwinners and female homemakers. Importantly, formal education widened the literacy gap between females and males since the colonialists chose males to acquire the education that would enable them to assist as clerks, interpreters and civil administrators of the colonial governments. Thus, the exclusion of women during the advent of formal schooling led to their under-scholarization and most importantly prohibited their participation in the labour market. The elimination of women from formal colonial institutions of governance, commerce and education enables us to begin to understand why women continue to be absent in large proportions in certain areas of specialization in Africa.

When women began gaining access to colonial schooling, their access to certain specializations was limited; Christianity became a vehicle for colonization and colonial schooling. During this period most of the educational institutions were run by religious organizations that encouraged separate roles for girls and boys. Missionary education resulted in a gender-differentiated curriculum where girls were schooled in domestic sciences to become better housewives and mothers, while boys were schooled in administration and management related courses to become the educated male African elite ready to deputize first and during independence to replace the colonial administrators (Berger & White, 1999; Schulman, 1992). Colonial education transformed pre-colonial gender differentiation into systemic gender inequality by first educating men and providing them with the credentials that gave access to the wage economy and valuable colonial social contacts, and hence, allowed men to command economic and social advantages over women. This was so because " African political economies were tied as appendages to the West and African men were

given increased recognition relative to women" (Mikell, 1997, p. 2). If females took up any careers, they were limited to the areas of teaching and nursing that were viewed as natural extensions of female qualities of nurturing.

The ideology of domesticity that the colonialists assumed, circumscribing women to the domestic realm of production, was not unique to colonial Africa as "European colonizers hailed from societies that had rejected prominent and public political roles for women " at the time (Berger & White, 1999, p. ix). The UNESCO Report (2000) claims that there was a wide difference in the enrolment rates of girls and boys before the end of colonialism, corroborating the view that very few women received any meaningful education during the colonial period. Okojie (2001) reveal that only 3% of the girls in SSA were enrolled in secondary education in 1960. Thus, colonial education perpetuated gender inequalities between women and men.

Moumouni (1968) and Rodney (1988) argue that since the capitalist class or the new rising middle class in Europe dominated education at the time, the same class-consciousness was transferred to Africa in Europe's attempt to assimilate and/or under educate African peoples.[2] They further posit that in the colonialist attempt to create a new elite class separate from the others, Africans began to be schooled in European languages and history. Consequently, Africans were not only prohibited from learning their African languages but also their own history. As a result, Africans were stripped of their cultural identity and integrity. Thus Moumouni and Rodney conclude that when women were given access to

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[2] The colonial regimes had different policies. While the French greatly relied on assimilation - that is, the policy of providing education up to university level to a select few with the goal to transform them into French men, the British instituted indirect rule whereby they ruled through the local chiefs and provided basic education to the African peoples. Though the British educated more people, such basic education enabled the Africans to serve in subordinate positions as clerks, storekeepers, overseers and others.

formal schooling, it was to train servants for white residents or wives for the new African male elite class.

These new arrangements and organizations, and the introduction of the cash crop economy coincided with the dwindling of women's status in marriage, households and local communities. The condemnation of practices such as polygamy and bride price eroded women's roles as heads of households, thus stripping them of the authority and decision-making that accompanied these practices. In addition, women also lost their rights over land ownership in certain societies because the colonial land tenure system issued land certificates only in men's names. The situation was further worsened in the area of agricultural production where most of the lands were reallocated for plantation agriculture and certain crops like yams, coffee, and cocoa became cash crops (Berger & White, 1999; Cutrufelli, 1983). Women's status was devalued, as their production was limited to subsistence agriculture, production and nurturing (Boserup, 1998). According to Mikell (1997), the resolve by the West to spread capitalism and political hegemony altered the dynamics of African societies.

The current problem of girls' access to education and their absence in certain areas of specialization has its roots in the marginalization of women that permeated both the pre-colonial and colonial periods. Examining the organization of education during the pre-colonial period revealed practices of gender discrimination in education. This inequity was reinforced during the colonial period. Worse still, colonization stripped women of some of the public roles they had held during the pre-colonial period. It is worth noting that political independence marked the formal end of colonial rule, but it did not eliminate the economic dependence of most African nations. Former colonial powers have been replaced by

multinational corporations and funding agencies that work closely with African governments that, in some cases, assist them in identifying their policy objectives in Africa. Hence, in order to understand how and why gender inequities persist in African countries, the role and impact of the West are important because of the continued dominance of the West in the production of knowledge.

Gender, Education and Work During the Post-Colonial Era

The 1960s saw a wind of change in Africa as most countries gained political independence. However, the education of African girls was not among the immediate priorities of African governments. A gender imbalance in female and male enrolments persists and females are absent in science and technology specializations in Cameroon (Hoffmann-Barthes, Nair & Malpede, 1999; Mfou, 1997). When Esther Boserup, the Danish economist, published her influential book titled *Women's role in economic development* in 1970, it marked an important new beginning to the attention paid to women's education and agricultural production in developing countries including SSA. Economists, development experts and educators working in the region began acknowledging the social and economic benefits that accrue from the education of women. This trend was strengthened in 1985 during the Nairobi World Conference that advocated for "Equality, Development and Peace." The theme of the Nairobi conference was further endorsed in 1990 at Jomtien, Thailand when donor agencies like the World Bank, UNESCO, UNDP and others joined the UNICEF to proclaim "Education for all by the Year 2000." One of the objectives of this declaration was to reduce the gender gap in education that was being described as a sort of "gender apartheid". Furthermore, The Fourth World Conference on Women in Beijing, China, 1995,

instituted the platform for action, which provided governments with strategies to promote female access and participation in education.

The literature on gender and education in Africa during the post-colonial period is available in different forms and ways. First, there are volumes on developing countries with SSA covered as a separate section or topic. Second, there are reports prepared by consultants for funding agencies based on desk research, which lack the experiential component and the historical and political practice and analysis of local women to make them useful. Third, there are studies by international organizations such as the World Bank, UN, UNESCO, UNDP, and UNICEF based on projections from the relevant countries, and those are mostly in statistical forms. The research by these international organizations not only fails to capture the nuances that characterize everyday lives, but also tends to focus on statistical data written for social planners. The fourth category includes individual researchers through unpublished theses, conference reports, journal articles and book chapters on varied topics produce another category of research on gender and education in Africa. Usually, these reports focus on a specific country's issues and topics that interest the individual researcher. Currently, regional organizations interested in increasing access and participation of African women and girls in educational institutions are engaged in this sort of research. These organizations include African Union, African Academy of Sciences, African Development Educational Association, and the Forum for African Women Educationalist with working groups such as the Female Education in Mathematics and Science in Africa. Since 1990, these organizations have produced very useful regional statistics and data on some of the factors that affect participation of girls in education.

While development experts agree that the education of African girls is vital in enhancing economic growth, they do not agree on how best to achieve equity. Some scholars like Mbilinyi (1972) and Robertson (1984) theorize that basic education for all will only enhance the subordination of women because it does not provide the African female with the credentials necessary to gain access to higher wage earning jobs. Furthermore, Mbilinyi argues " the only way that African women will ever be able to advance beyond their present state of social, political, economic and legal inferiority is by getting wage-earning jobs" (p. 63). The point that Mbilinyi is making here is that financial independence will provide a window of opportunity for African women. I find problems with this idea, however, that wage-earning jobs are the only means of acquiring financial independence. My mother is an example of the struggling African woman who had only elementary education and has been able to provide for her family of eight through her resourcefulness and success as a farmer and a petty trader. My mother epitomizes many women in Cameroon, Nigeria, Ghana, Benin, and Togo to name a few, who did not have the opportunity to go beyond elementary school but have demonstrated their ingenuity by providing a good source of income for their families through petty-trading and agriculture (personal observation). However, gendered assumptions continue to shape women's lives in Africa as is evident in their concentration in *traditional* female occupations (Diallo, 1994; King, 1993; Njeuma, 1995). These gendered notions are embedded in cultural notions about femininity. They are also part of the beliefs and value systems that shape women's lives in ways that limit their participation in the public spheres of education, the economy, and politics in Cameroon, Africa and elsewhere.

On a regional level, females and males have achieved equal access to primary education in some SSA countries (World Bank, 1997). Although the percentage of girls

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participating in secondary education is gradually improving, girls are not often encouraged to

pursue scientific and technological training and education, which subsequently limits their

knowledge and qualifications they earn for scientifically and technologically oriented careers

(Hari, 1998; Kithyo & Petrina, 2002; Leigh-Doyle, 1991). Most research on gender and

education in SSA documents the increase in female access to secondary schooling and at the

same time the higher rates of attrition among female students in post-secondary institutions

(Bloch & Beoko-Betts, 1998; Broch & Cammish, 1997; Cammish & Brock, 1994). Notably,

"in most countries there are relatively few females at the highest level of the education

system" (Samoff et al, 1996, p. 11) and thus the under representation at every level of

schooling.

<u>Importance of Female Education</u>

This section reviews literature that highlights the importance of female education, and

reports data on participation and success rates for SSA. The literature is assessed in terms of

what it reveals about the factors that affect female participation in secondary education, what

we can learn by looking at the present enrolment patterns, and female decision-making about

subject choices.

The merits that come with participating in and acquiring secondary school

qualifications are enormous. Education has affected practices in the domain of health

(Browne & Barrett, 1991; Gachukia, 1992), agricultural production (Boserup, 1998) and

female participation in the labor force (ILO, 1991; Leigh-Doyle, 1991). Education,

particularly female education is identified as one of the major contributors to a country's

economic growth and therefore an important factor in the economic development of a nation

(King, 1993; World Bank 1993; 1997). Because of the recent advancements in technology,

economic reforms are creating dramatic shifts in the structure of economies, industries and labor markets throughout the world. Investment in education contributes to the accumulation of human capital in the sense that the individual's knowledge must be improved in order to keep pace with the changing technology and sustain economic growth (Mikell, 1997; Stamp, 1995; Torto, 1998). Education therefore helps to produce workers who can acquire new skills and support the continued expansion of knowledge and production. Birger Fredriksen, Senior Education Advisor of the Africa Region, World Bank in his forward at 2001 Mauritis workshop on the Renewal of African secondary education maintained:

> Good quality secondary education is now considered a prerequisite both for successful integration of young people into the modern economy and for the ability of countries to benefit from the ICT and knowledge revolution and to compete successfully in the new globalized, knowledge-based economy. Secondary education provides countries with critical higher-level skills and knowledge for advanced learning and training of technicians, scientists and entrepreneurs. (Bregman, & Stallmeister, 2002, p. iii)

Focusing on social, economic, political and cultural aspects of women's lives, gender and development theorists argue that while secondary and higher education qualifications will provide women with the credentials to integrate them into the paid labor market, experts working in Africa should begin to value and recognize women in the informal sector performing unpaid work as important agents of change rather than passive recipients of development (Aidoo, 1998; Boserup, 1998; Visvanathan, et al., 1997). Women and development theorists posit that investing in female education will ensure women's realization of their full potential through participation in public and private spheres of life

and acquiring economic independence, which will bring about improvement of women's social, economic and political status in the society (Browne & Barrett, 1991; Visvanathan, et al., 1997). Overall, female education attracts social and economic benefits in the domain of health, agricultural production and also in securing positions of responsibility that enhances women's access and participation in areas of decision-making in society (Browne & Barrett, 1991).

Although considerable progress has been made in increasing female enrolments at the secondary school level, girls drop out more frequently than boys and their academic performance trails that of boys (Diallo, 1994; Leigh-Doyle, 1991). As a result of girls' poor academic performance in certain subjects, they are disqualified from admission into certain specializations at university level. The literature shows that there are school and home factors that account for these differences in participation and achievement of girls and boys that must be understood in order to address the issue of gender inequities in education in SSA. Before examining what the literature reveals about the factors that limit female participation in education, particularly in areas of science and technology, I provide an appraisal of the literature that examines issues of access and measures participation.

Measuring Participation and Issues of Access

The World Bank has sought to integrate women into the development process. Its approach to women in development is based on the premise that increased levels of education for women contribute to increased productivity in agriculture and better health practices. This in turn will increase the quality of life for women, men and their children. Based on extensive

projects in SSA, the World Bank published a number of reports of projects they sponsored or conducted.

At the dawn of independence for most African countries, the enrolment of girls in primary school as compared to boys varied. In Nigeria, 37% of primary students were girls, in Ghana 35%, in Cameroon 33%, and in the Central African Republic 19% (World Bank, 1988). By 1983, 26% of students enrolled in secondary education in Cameroon were female, in Ghana 37%, and in the Central African Republic 26%.

Table 1 presents data on female participation in education in SSA based on a survey conducted in some SSA countries, which reveal that a "gender-gap" exists at all levels of education. The gross enrolment ratio for females at primary level in 1987 was at 76%, 11% at secondary level and 0.6% at tertiary level (Hartnett & Heneveld, 1993).[3] The evidence from table 1 suggests that more girls drop out between primary and secondary levels and more at the tertiary level of education. This dropout rate for females makes the disparities of enrolment obvious at post-secondary educational institutions. Today, there are only two countries in SSA where women outnumber men at higher educational levels: In Lesotho women constitute 55% of those enrolled at the university while in Namibia they make up 61% (Hartnett & Heneveld, 1993; UNESCO, 2000).

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[3] The authors calculated the Gender Ratio by dividing the females' rate by the males' rate. A Gender Ratio of 1.00 for a given country therefore means that females are doing just as well as males on that indicator; a female to male ratio of 0.50 suggests that females are doing half as well as males; and a gender ratio of 0.32 implies females are at a rate of 32 percent of the males' rate.

Table 1. Female Participation in Education in Sub-Saharan Africa: Regional Medians

Indicator	Female Rate	Gender Ratio	No. Of observations*
Primary Admission Rate, 1987	76%	0.88	28
Gross Primary Enrollment Ratio, 1986	63%	0.77	43
Repetition Rate, Primary, 1987	22%	1.01	27
Persistence to Grade 4, 1985	83%	0.99	22
Primary Completion Rate	36%	0.81	25
Continuation Rate from Primary to Secondary, 1987	41%	0.92	15
Gross Secondary Enrollment Ratio, 1986	11%	0.50	43
Repetition Rate, Secondary, 1987	19%	1.10	17
Secondary Completion Rate	18%	0.64	27
Continuation from Secondary to Tertiary, 1987	70%	1.20	1
Gross Tertiary Enrollment Ratio, 1986	0.6%	0.22	38
Enrollment in Sciences at Tertiary, 1987	23%	0.67	19
Female Teachers as % of Total, 1987			
Primary	34%	..	46
Secondary	22%	..	46
Tertiary	12%	..	10
Mean Years of Schooling, 1990	0.8	0.40	46
Adult Literacy Rate, 1990	30%	0.57	34
Labor Force Participation, 1987	32%	0.63	43

*Number of countries for which data is available
From: Hartnett & Heneveld. (1993). *Statistical indicators of female participation in education in Sub-Saharan Africa*, p. 3.

The IV World Bank Educational Project in Cameroon undertaken by the Ministry of National Education followed all the 1983/1987 secondary school cohorts through their secondary schooling career. The study found that of all the students who began their secondary schooling in 1983, 76.6% of Francophones were still enrolled in 1987, and 89.2% for Anglophones. For the same cohort, 6.8% of Anglophone girls compared to 4.3% of Anglophone boys dropped out of school. Among Francophones, 9.2% of girls compared to 6.5% of boys dropped out of school over a five-year period (MINEDUC, 1990). It is evident from the Cameroonian secondary enrolment figures that girls have a higher dropout rate than boys.

These findings are similar to a survey of SSA countries (Hartnett & Heneveld, 1998) that also found higher dropout rates for girls between primary and secondary levels and between secondary and tertiary levels. Brock and Cammish (1997) surveyed six developing

countries, including Cameroon. They found an overall decrease in enrollment for both females and males at the secondary level, and importantly, the enrolment disparities widen in higher classes. Inequalities are evident in the enrolment pattern of boys and girls in secondary science programs and courses. Hoffmann-Barthes, Nair, and Malpede (1999) used data drawn from the national examinations in secondary science to produce the following conclusions about girls' participation in science. In Zambia, girls constitute 15-16% of the total number of students enrolled in physics and chemistry. In Burundi girls are 13% of the total population in secondary science. In Ghana girls make up 23% of the total number of students enrolled in science at senior secondary level. In Zimbabwe girls are 10% of those enrolled in physics, 26% in chemistry and 34% of the total number of students registered at the Advanced Level in 1993. The statistics on girls' participation in science courses for the few countries mentioned above shed light on how few girls continue to enrol in these subjects. As Hoffmann-Barthes et al. (1999) put it "the preference by the majority of girls to study general science bars them from enrolling in math, or subjects which enable them to follow careers such as Medicine, Dentistry, Surgery, Engineering and Agriculture. This means that the majority of girls have only one option when enrolling in the university, that of studying arts-based courses" (p. 14). The reason why these gender differences persist remains daunting.

While girls' participation in the sciences remains low, women's participation in the labour force continues to increase. Hartnett and Heneveld (1993) indicated that African women constitute only 32% of the labour force. CIDA (2002) profiled Cameroon adult women (15 years old and over) showing a rate for economic activity of 48% for women and 86% for men during the 1995/2000 period. In 1998, the female labour force accounted for

38% of the total labour force compared to 32% in 1980 (CIDA, 2002). The unemployment rate has increased in the last 10 years from 7.3% to 24.6% of the economically active population with the rate of unemployment in Cameroon's urban areas being one of the highest in Africa. Of the estimated 500,000 unemployed in 1996, close to 35% were women. Unemployment particularly affects the 20-24 year old population and in the last ten years, the tertiary graduate population. Recent data from the Ministry of Women's Affairs (CIDA, 2002) in Cameroon shows the enrollment levels for girls/women at the tertiary level of education as follows: 30% in Law, 20% in administration, 20% in medicine and biomedicine, 19% in finance, 6% in technical fields, and 5% in public works.

The studies that cover the postcolonial era highlight the importance of female education in the development process, provide some relevant statistical information on gender and schooling in SSA, and point to female participation in the labor force. They also stress the need for female participation in development, but fail to explain why consistent differences in enrollment patterns exist as seen at the tertiary level of education and in female participation in the labor market.

Factors Affecting Female Participation and Retention

The literature on gender and schooling reveals that there are economic, social, political and cultural factors that constrain female participation in education in SSA. On the supply side (that is who provides what kind of education), there are political, institutional and school factors. On the demand side (that is who needs schooling), socio-economic and cultural factors, which affect parents' choices, are also evident in the literature. I provide an analysis and critique of what the literature says about the factors affecting female

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participation in education, particularly secondary education in SSA, and highlight what the literature does not address concerning girls' decision-making about subject choices.

The literature accentuates political and institutional barriers that limit girls' participation and performance in secondary schools. These barriers include budgetary constraints of the government, lack of incentive or a clear strategy for girls' education, lack of support for women in scientific programs, and limited employment opportunities for females in the formal labour market. School factors such as pedagogy of difference are characterized by low expectations of the teachers in regards to girls' academic abilities, and gender bias in classroom interaction. These were identified as factors that affect assessment and performance, and contribute to girls' decisions about acquiring higher education (FEMSA, 1998; Nfou, 1997).

FEMSA notes that girls enrol in primary schools in large numbers but only a few continue to secondary and post-secondary levels of education. They remark that although girls and boys have the same potential, learn the same subjects, study the same syllabi, and are taught by the same teachers, girls continue to lag behind because classroom interaction in African schools is characterized by pedagogy of difference. The pedagogy of difference begins at home and in the community, where parents, aunts, and neighbours perceive girls to be biologically different, and therefore must assume certain traditional roles in the society. The FEMSA study further states that traditional African societies tend to use physiological differences between the sexes to limit women's role to the home, family and community.

This pedagogy of difference that FEMSA describes operates in classrooms, and is promoted by teachers and students alike. It takes the form of classroom discrimination, a systemic bias against females, and a dominating attitude by males over females that serve to

restrict girls' potential and responsibility through continued stereotyping. Though the FEMSA reports draw attention to one of the major factors that constrain female participation in certain areas of specialization, they fail to examine from the perspective of female students, and the social processes that produce such consistent patterns in enrolment. The FEMSA reports do not identify and promote agency in the few girls who choose the sciences. They also fail to provide solutions on how to counter gender bias in the classroom, school and the community.

Although girls have made considerable progress in terms of participation in education, 76 percent of adult women in Africa are illiterate compared to 45 percent of adult men (Bregman & Stallmeister, 2002). Girls continue to represent less than half of the school population at primary level. The under representation of girls has been attributed to cultural and economic factors that appear to determine girls' educational disadvantages. Poverty and gendered assumptions about girls' future roles as mothers and wives influence parents' choices about whether to educate the female or male child (Diallo, 1994; Gachukia, 1992; Njeuma, 1995). Schools also reflect and promote society's low expectation for girls through practices of exclusion, avoidance and marginalization (Odaga & Heneveld, 1995; Torto, 1998; Zewide, 1994). African governments' policies towards education do not address issues of gender inequitable assess in areas of science and technology (Kithyo & Petrina, 2002).

Socio-economic factors are identified in the literature as influencing the choices girls make in deciding to pursue higher education. Women, it is claimed, contribute inordinate amounts of unpaid work to food production for household consumption, farming, and other domestic chores (Arndt, 2002; Boserup, 1998; Njeuma, 1995; World Bank, 1997). The World Bank report of 1997 describes women and men's contributions as follows:

Women spent an average of 50 hours per week on domestic work, and 20 hours in

food production. Men spent only five hours per week on food production, 10 hours on

domestic labor, 10 hours on productive activities, and 5 hours on palm wine

production. On the whole, women in Cameroon work an average of 70 hours per

week on unpaid activities while men work for 30 hours. (p. 12)

A look at the Cameroonian labor force participation by gender reveals that women continue

to cluster in the informal sector. Women constitute more than 80% of the workers in the

agriculture sector of the economy. Tables 2 and 3 portray the labor force participation of

1987 and 1996 respectively.

Table 2: Distribution of Primary Sector Labour Force by Branch of Activities, 1987

Branch of activity	Total	Male	Female
Food-producing agriculture	74.4%	55.0%	96.1%
Export-oriented agriculture	20.0%	35.3%	2.5%
Breeding, hunting	3.6%	5.8%	1.1%
Fishing	3.1%	3.1%	0.3%
Agriculture and forestry	0.4%	0.8%	-
TOTAL	100.0%	100.0%	100.0%

Source: CIDA (2002) INC - Gender profile: Cameroon [On-line] http://www.acdi-
cida.gc.ca/cida_ind.nsf/0/04fc5f8588f92ca385256bfe0068cf25?OpenDocument

Table 3: Distribution of the Labour Force by Sector and Gender (%), 1996

Sector	Total	Male	Female
Formal	14.8%	23.7%	5.4%
Informal	85.2%	76.3%	94.6%
Total	100.0%	100.0%	100.0%

Source: CIDA (2002) INC - Gender profile: Cameroon [On-line] http://www.acdi-
cida.gc.ca/cida_ind.nsf/0/04fc5f8588f92ca385256bfe0068cf25?OpenDocument

Because of the enormous time demands of household tasks, mothers often require the assistance of their daughters. While this can be considered useful training for adulthood, the consequence for female students is that they are denied the privilege of time to study and compete academically with their male peers at school. Also, some girls are withdrawn from school to care for their siblings. Hari (1998) points out that some teachers and parents hold the view that girls are less capable academically than boys, especially in the sciences. For this reason, parents and teachers are less likely to provide academic assistance to girls since they view it as a waste of time and money. Sohoni (1994) posits that formal education is supposed to enrich the female, add to her self-awareness and self-esteem, and provide alternatives for her outside the traditional gender roles of daughter, wife and mother. While schooling can prepare girls for careers in science, technology and the complex society, embedded in the girls' upbringing in the family and local community is still the expectation that it should not interfere with the more important traditional training to be 'feminine', that is, to be a wife and mother. The school becomes a terrain where girls deal with these mixed messages that they get from their community, teachers, and peers about what is appropriate for them on the one hand, and their academic capabilities and aspirations on the other.

Woodhouse and Ndongko (1993) interviewed ten women scientists in Cameroon to find out how they succeeded in becoming scientists and science educators. They identified a number of factors that enabled the women to succeed in their pursuit of science careers such as family support for female education, the women's determination and their spirit of competitiveness in spite of the absence of role models. Whereas these women celebrate their successes as scientists, they nonetheless had misgivings about the inaccessible nature of the curriculum and pedagogy of science teaching to women. Science subjects the women

contended were often taught in a transmission fashion, thereby failing to allow students to make a link between science and nature or to challenge the subject matter as presented. The women subjects in the study also pointed out that they had very little field and laboratory experience during their high school years, and asserted that the teaching of science in abstract and theoretical ways particularly affected female students who are often interested in connecting scientific theories and their everyday lives. While this study attempts to present some role models, it is limited to portraying women in the fields of science teaching and general medicine, fields that are considered feminine and "soft" places for women in science.

Browne and Barrett (1991) stress that education is essential for economic development and should be a priority for all members of a society. They propose that differences in levels of education between women and men can explain differences in economic growth between countries with similar natural resource bases and levels of investment. African women as far back as pre-colonial times have demonstrated their responsibility for both human development (by nurturing, upbringing, socializing and educating their children) and economic development (as farmers and traders). Nonetheless, their low levels of formal education and their near absence in the areas of science, technology and engineering impede their potential human and economic contributions to their present-day national economies. Educated and qualified girls in different professions will not only have the credibility to obtain loans from financial institutions, but will also be able to enter other sectors of the economy and society.

This chapter began with a review of the social transformation that occurred in the move from indigenous to modern societies through colonialism, the introduction of formal schooling and a cash economy. It highlighted the resulting effect on the kind of education

provided to girls in SSA and the choices available to them in the wage economy. It also found various explanations for the differences in female and male rates of participation and achievement at secondary and post-secondary educational level in Sub-Saharan Africa. Some include gender stereotyping in classrooms, school, home and community, which have been said to lower the achievement of girls and boys even in areas that are considered *appropriate* for both genders. The articles examined often stressed the social, economic and cultural factors that prompt teachers, parents and other community members to make gendered choices with respect to issues related to female schooling and girls' educational choices. These gendered choices not only limit female enrolment in science and technology but also exclude them from careers in science and technology. Most studies emphasized the perceptions of parents, teachers and community members while excluding the perception of female students, who constitute the affected lot.

Little empirical research has investigated the impact of cultural notions about femininity on female students' academic performance, selection of courses, and how these influence their decision to undertake higher educational studies. To address the issue of gender disparities in higher education in SSA, it is necessary to understand students', parents' and teachers' views of gender roles and how these may influence girls' experiences in and decisions about school. It is only by understanding female students' perceptions that we can better understand how their self-understandings are produced, negotiated, and acted upon. The next chapter examines some of the micro and macro processes of decision-making using a number of theoretical perspectives.

CHAPTER THREE

A THEORETICAL FRAMEWORK FOR UNDERSTANDING SUBJECT CHOICE DECISIONS AND OCCUPATIONAL ASPIRATIONS

Different curriculum stakeholders recognize that schooling performs an important social function in society. Education is a social contract through which citizens give up certain freedoms in exchange for being provided a stable environment and the opportunity to acquire a better life (Gray & Herr, 1998). There is a common saying in Cameroon that "He who has people (friends, relatives etc.) is wealthy." Education in economic terms contributes to the development of human resources, one of the most important resources in a country. Education and training are kinds of investments that yield returns in the form of the earnings that educated people receive.

Education is and should be seen as an asset in the form of knowledge and skills for individuals and in turn increases productivity in a society (Anker, 1998; Gaskell, 1992; Gray & Herr, 1998). The underlying assumption is that higher wages are allocated to individuals according to their level of education. For example, the higher the education of an individual in Cameroon, the higher the earnings. Those who provide education in Africa (governments and funding agencies), also consider that investment in education and training can be a profitable investment, after all, human capital increase is believed to increase economic growth and improve practices such as nutrition, reproductive health and the general welfare of people.

Parents send their children to school to acquire an education that will enable them to become financially independent. Educating a child is seen to be an investment that will yield economic returns because schooling provides the credentials that yield prestigious and high-

paying jobs. The reward that comes with education therefore motivates parents to invest in their children's education.

Teachers are also important stakeholders in the education system. Their primary function is to provide students with knowledge and skills that will prepare them for their adult life in the society as a whole and their performance of a specific type of task within the economy of that society. In this process, teachers not only teach but also discipline and evaluate students' academic performance. Thus, teachers grade the students as either having passed or failed the exams, which makes their role very important when it comes to subject choices. Teachers are socialized within certain geographic locations and cultures. They have biases that shape the relationships they form with students. These biases may affect students positively or negatively and may in turn impact students' subject choice decisions.

The students on their part consider education as an important function in shaping their destinies to become responsible individuals in their society. Education for students is the pathway to acquire the credentials that will be rewarded with well-paying jobs. In Cameroon today, people define each other by their family name, ethnic origin, and often by their occupation. A number of occupations provide upward mobility through status and financial gains for individuals. For these reasons, students consider schooling an important priority.

If schooling has an important social function not only for the providers of education but also for the recipients, one would think that those providing education within the region would be content after reaching their goal of achieving basic education for all in certain African countries in the year 2000. The current gender disparities at the secondary and university levels and importantly the absence of females in areas of science and technology beg the question of why these disparities continue to exist. The question arises as to how one

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can best understand the schooling experiences of girl students in order to support them. How are girls making educational choices? What factors influence girls for example not to be scientifically and technologically inclined as in the case of Cameroon and most of Africa? How can one analyze the girls' decision-making processes about subject choices?

As Gray and Herr (1998) contend "individuals do not develop their feelings about their own competencies or preferences, their commitment to work and knowledge about its meaning and options, or their attempts to choose, prepare for, and enter and adapt to work in a vacuum" (p. 123). These preferences and competencies develop over time and are shaped through the individual's interaction with their personal environments of family, school, social class, community and economy. The process leading to choice making is dialectic, a struggle between the individual and her/his environment. One's environment will influence the kinds of educational choices that she will make. It is for these reasons that this study sets out to investigate how students' individual and personal environments influence their subject choices.

This section examines some theories that help us to generally understand the process of girls' decision-making about subject choices that prepare them for different post-secondary specializations and occupations. Various models have been proposed to help us understand decision-making. They range from individual characteristics of the students (intellectual abilities, educational achievement, family background and school environment,) to structural constraints (socio-cultural condition, curriculum and guidance emphasis, occupation and the economy). Although reference will sometimes be made to other theories in the course of data analysis, three theories frame this inquiry: status attainment theory, decision theory/rational choice theory, and African feminist perspectives. My goal is not to

provide a comprehensive review and critique of these theories but use some key texts and concepts to highlight the strengths and weaknesses in using them to understand how girls in one Cameroon secondary school make subject choices which set them into different academic paths and the world of work.

Status Attainment Theory

Status attainment theory, according to Gaskell (1992), arose out of the traditions of Parsons' functional theory and focuses on determining the individual factors that affect attainment at school and in the labour market. In this case, the researcher considers issues like socio-economic status, educational achievement, IQ, attitude measures, self-concept measures and others and sees how they predict occupational attainment. Blau and Duncan (1967) popularized the status attainment model when their research began looking at the extent to which circumstances at birth predicted later status attainment. Their work attempted to understand if status was attained by attribution or by academic performance in which case, each stage in the life of an individual affects the subsequent stage. Blau and Duncan examined the following variables in relation to social mobility: father's education, father's occupation, respondent's education, respondent's first job and respondent's occupational level. Quoting Hotchkiss and Borow, Gray and Herr (1998) posit that, "the social status of one's parents affects the level of schooling one achieves, which in turn, affects the occupational level that one achieves" (p. 105). While Blau and Duncan (1967) were able to demonstrate that the father's occupational level influenced the son's educational level, their work failed to elaborate the individual characteristics of the sons that might account for status attainment.

The work of Blau and Duncan was later augmented to include psychological and social-psychological factors such as academic performance, mental ability, educational and occupational aspirations and the influence of others (see Bidwell & Friedkin, 1988; Jencks, Crouse, & Mueser, 1983). This augmentation, also known as the "Wisconsin" model of status attainment, examined the effects of family status on educational and occupational attainment as an individual's educational and occupational aspirations and others influenced it. Gray and Herr (1998) acknowledge that researchers involved in status attainment research expanded their studies as they began to look at "socio/psychological processes and mental ability as parts of this model of family status and occupational attainment" (p. 105). In addition, Gray and Herr (1998) state:

> The track a student pursues in the secondary school has a great deal to do with the type of academic learning to which one is exposed, whether or not one is likely to drop out or persist to high school graduation, and the total amount of education one actually completes. These curriculum choices in the secondary school tend to be proxies by which parents' socio-economic status is linked to students' learning and aspirations in the elementary and secondary schools and ultimately to their adult attainments. (p. 105)

Applying Gray and Herr's concept to the Cameroon context, students who follow the predominantly general education system will end up selecting courses in the high school, which are not necessarily in the field of technology. This is so because the general education curriculum provides subjects that prepare students for the humanities, social sciences and natural sciences and not in areas of technology.

Another important aspect embedded in status attainment theory when issues of socio-economic differences between families are considered is that children will receive different information from their parents about various occupations which will affect their subject and vocational choices. In a study of elementary school children from different socio-economic backgrounds, Mackay and Miller (1982) found that children from middle and upper class backgrounds choose white collar and professional occupations more often than children from lower socio-economic background.

According to this theory, family members can greatly influence educational choice through the information, financial resources, and the support they provide. Gray and Herr (1998) claim that there are relationships between socio-economic status of families and the vocational attainment of the children. They contend that a family with a higher socio-economic status possesses the resources to finance educational opportunities that lead to higher status occupations. Consequently, parents of the middle and upper classes tend to desire that their children attend college and graduate school in order to acquire managerial, and professional occupations. Apart from socio-economic status, other factors such as home influences, academic performance, teachers and peer influence, presence of role models, and the perception of the student in relation to their capabilities also influence educational choice. Although all these factors play a role in the student's decision as to which educational path to take, "a consistent finding is that social class factors create barriers and open possibilities that tend to overarch the other sociological factors" (Gray & Herr, 1998, p. 107).

Status attainment theory reminds us that students' subject choices can be influenced by their parents' status (level of education and occupation) and individual psychological and socio-psychological characteristics of the student. However, Gaskell (1992) critiques this

theory for focusing too much on individual differences and assuming that "labour market is in itself unitary, competitive and responsive to individual characteristics" (p. 19). In addition, status attainment theories do not allow us to understand the reasoned decision making that people make in concrete everyday problem situations. Therefore, it's important to consider other theories that take into account people's rational decision-making.

Decision Theories and Rational Choice

Decision theory deals with principles of rationality and is concerned with the "process" of decision-making; the way people choose rather than individual differences or traits that status attainment theory is concerned with. This approach is widely used by workforce educators to understand people's career decision-making processes and it seeks to explain how people make decisions. Therefore, it has potential in helping us to understand how female students make decisions about subject choice and occupational aspirations. Gray and Herr's (1998) elaboration of decision theory is most relevant because they augment previous models of rationality and/or decision approaches by providing a sociological perspective of individual decision making.

Rational choice models of decision-making have been called formal political theory, positive political theory, public choice, political economy, neoclassicism, and expected utility theory and used in general to explain not only economic behaviour but also behaviour studies by nearly all social science (Shepsle & Bonchek, 1997; Zey, 1992). However, the rationality assumption has been widely used in its fullest in economics (Gray & Herr, 1998), which should not suggest that there is something distinctively economic about rational behaviour. As Zey (1992) insists "there is no set of criteria for delimiting the axiomatic tenets of this

theory that is accepted as canonical. It would be better to acknowledge that there is no one 'rational choice theory'; rather, there are rational choice perspectives" (p. 12).

Decision theory includes a number of different approaches to understanding the choice making process. Pitz and Harren (1980) describe one approach to decision-making that proposes four key elements involved in the process of choice. These elements include a set of goals that the decision maker attempts to attain, a number of alternatives from which one must choose, the possible results correlated with each choice, and the ways each result will be evaluated in regard to how well it meets the decision maker's overall goal (Gray & Herr, 1998, p. 121).

Nurmi (1998) and Shepsle and Bonchek (1997) claim that when an individual must make a decision, that individual operates with the decision modalities of certainty, risk, and uncertainty. Nurmi (1998) describes the three decision modalities as follows: 1) under certainty, the decision maker has all the information about her environment and the consequences that will follow if a certain choice is made; 2) under risk, the decision maker knows that when she takes into consideration her environment, her choices will determine the outcome and these outcomes have consequences. In this case the decision maker does not know what will prevail but knows the objective probability of each state and the likely consequences that could befall her; 3) under uncertainty the decision maker does not know the objective probabilities of the states of environments (p. 5).

Accordingly, decision theory views rationality as utility maximization. If rationality is seen as utility maximization then how does one maximize her utility under certainty? According to Nurmi (1998), preference is one of the essential elements in decision theory and decisions are regarded as choices. Given that the objective of decision theory is to gain

insight into choice behaviour, one assumes that the decision maker has an opinion of the resulting outcome of a choice due to her interaction with the choice and the state of the environment. In the educational context, this means that the decision maker has a number of subjects offered in the curriculum from which to choose. She decides to choose a particular subject because of her interaction with that subject in the school context. Consequently, if she chooses a particular subject she is certain that she is going to pass based on experience with that subject over time.

On the other hand, Gray and Herr (1998) maintain that the major elements leading to occupational choice will be a combination of "personal expectations that one can perform the work required" and if the resulting consequences or outcomes of such work will be valued (p. 119). When applied to educational choice, Gray and Herr stress that beliefs about one's ability and success in doing a particular subject are pertinent elements of motivation and choice. Alternatively, Shepsle and Bonchek (1997) maintain that individual wants and beliefs are motivated by the desire for survival, reproduction, material, economic, religious values and others.

Decision theories do not seek to understand why people want what they want but rather to understand how people make choices among a number of possible options. Shepsle and Bonchek (1997), Somerville (2000), and Zey (1992) avow that individual wants or preferences are motivated by people's regard of what they consider as important which might include family, friends, the kind of career one wants to pursue or a particular academic subject. In this light, if a student finds that they perform well in a particular subject, it gives them the incentive to pay more attention to that subject and eventually choose that subject.

Furthermore, we often make assumptions about peoples preferences because peoples' preferences are one of those personal things that are evident when we meet them (Shepsle & Bonchek, 1997). Although the decision theory approach deals with the individual who has these preferences, tastes and behaviour, decision making does not only involve the individual's internal worldview but also the external environment in which people find themselves.

Another assumption of the decision theory approach is that individuals choose goals that will bring them greater profit thereby reducing their chances of losing. Profit and losses are relative to the individual as they differ in their nature and extent. According to Gray and Herr (1998) "an educational opportunity might be considered as a means of achieving many different possibilities – among them greater income, prestige, security, social mobility and leisure time – when compared to another course of action" (p. 120). In Cameroon today, there is the consensus that doctors, journalists, magistrates, pharmacists, and civil administrators are the few professionals who earn good salaries, command respect in the society and live a good life. Hence, students are inclined to choose subjects that will enhance their access into these occupations for they provide higher earnings and status in the society.

Besides, Gray and Herr (1998) posit that the primary notion of a decision theory approach is that:

An individual has several 'alternatives' or courses to choose from. In each of these alternatives certain events can occur. These events have different values to the individual and different kinds of likelihoods of occurrence that can be estimated. If each possible event is multiplied by its value to the person and its probability of

happening, the person can determine the alternative that is likely to have greater sum value to him or her. (p. 121)

A major assumption of decision theory that is evoked in the above quote is that decision-making is subjective since it is based on the individual's perception of what their options are. In addition, Gray and Herr are suggesting that individuals can be assisted to make rational decisions based on the information that is provided to them about the possible outcomes, and the risks involved.

Hence, information about the choices that are available to individuals, accuracy of that information, and the way the individual uses that information are going to affect their decision making. This tenet of information being a pre-condition for making any rational decision had been advocated by Gelatt (1989) and Clark, Gelatt and Levine (1965) in an earlier model of decision-making (Gray & Herr, 1998, p. 120). According to this earlier model, Gelatt (1989) asserts that "the process of deciding requires a 'predictive system' (determining possible alternatives actions, outcomes, and probabilities), a 'value system' (determining the desirability associated with outcomes), and a 'decision criterion' (leading integration and selection of an appropriate action)" (p. 120). Clark, Gelatt and Levine (1965) further posit that in order for an individual to make a good decision, they need sufficient information and good judgement to scrutinize, systematize and synthesize this information before arriving at a choice.

Gray and Herr (1998) also maintain that the individual's interpretation of different actions and outcomes is comprised of their risk taking style and the degree to which they consider the risk as an investment strategy. They assert that because people differ in their risk taking styles and willingness to cope with uncertainty of outcomes, some of them prefer to

know what they would achieve due to a choice rather than the possibilities that lie ahead of them. As an investment strategy, the act of choosing requires tangible and intangible investment by the chooser in things like capital, prestige, time and gratification, which can be consciously taken into consideration. In a case where the decision maker is acting under risk, she does not know the current state of her environment. This means that, the decision maker "is only able to assign to each choice at her disposal a probability distribution over the ensuing outcomes. The decision maker is facing several risky prospects. A risky prospect is a probability distribution over certain outcomes" (Nurmi, 1998, p. 10). In making choices, the decision maker has to assess the choices such that they are not dependent on the value of any single outcome.

Another important aspect presented by decision theory is that the choices that people make are revealing of the way they view themselves. People view themselves as being good, bad, competent or incompetent and see their opportunities as attractive, negative, unlimited or limited (Gray & Herr, 1998, p. 121). Decision-making embodies the meanings of choice, the factors that shape it and the promises and perils that are associated with a particular choice. Consequently, when the decision maker is acting under uncertainty, her choices are not considered as risky but uncertain calculations because she at least has an idea of the outcomes that may result from her choices but not necessarily the objective probabilities in respect to her choices. In other words, the decision maker knows what the outcomes are if certain conditioning events do take place. When applied to educational choice and outcome, this will mean that the student knows that she will gain admission into the department of life sciences to pursue a degree in microbiology if she takes biology, chemistry, physics and mathematics at the GCE O/L and pass them. Alternatively, she can only be admitted into the

department of mathematics/physics if she failed biology and chemistry. The uncertainty that underlies rationality becomes of interest because it affects the way people express their preferences. Consequently, people choose the instrument that will lead to the outcome because they cannot choose the thing that they want directly.

Thus, decision theory enables us to take into account the various factors that influence individual decision-making, however it fails to adequately take into account value conflicts within individuals. It assumes that in a decision situation if an individual is informed about the probable outcomes, they will make a predictable reasoned choice. However, individuals do not always act rationally because their preferences are limited by their social cultural milieu.

Social Contexts of Decision-Making

In decision theories the principle of rationality carries a liberal notion that individuals have the capacity to make rational decisions and determine their destinies. If one assumes that individuals follow a rational course of action in every given context, can this alone explain how and why students choose the academic subjects that they choose? Although this is true to an extent, it falls short of explaining the role that context plays. Individuals do exist in social contexts, which shape and are shaped by the individuals in that context. Thus, contexts do sometimes restrict the liberty of choosing certain options.

Bourdieu (1997) extends our understanding of how contexts can reproduce power structures and relationships by looking at how the volume of capital that certain individuals and families possess can make things not "equally possible or impossible." According to Bourdieu (1977) capital is a set of actually usable resources and powers, which can be

economic, cultural, social or symbolic. His theory of practice provides a portrait of the complexities of the social world by postulating that we can account for people's actions by understanding the actions that inspire them. Bourdieu (1997) points out that "capital is accumulated labour (in its materialized form or its 'incorporates,' embodied form) which when appropriated on a private, that is, exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labour" (p. 46).

As Zey (1992) affirms, limits of human rationality are imposed by the complexity of the social context in which decisions are made, by the constantly shifting individual preferences and beliefs, by value conflicts among individuals and groups, and by the limitations of calculating how the world works. Uncertainty and complexity of the social world are two limitations of rational choice theory. In addition, decision theories assume that individuals do act rationally; it also fails to give a full explanation about social relations and how power came to be unequally distributed within the society.

The family, school, community, and neighbourhood can be seen as avenues and filters of information that is communicated to individuals. Consequently, the information that those who come from a low socio-economic background have may not be the same as those from the middle and upper socio-economic backgrounds. Bourdieu and Passeron (1979) contend that:

> Teaching implicitly presupposes a body of knowledge, skills, and above all, modes of expression which constitute heritage of the cultivated classes . . . secondary schooling conveys second-degree significations which take for granted a whole treasury of first degree experiences – books found in the family library, 'choice' entertainments chosen by others, holidays organized as cultural pilgrimages . . . It can only lead to

fundamental inequality in this game reserved for privileged persons, which all must enter because it presents itself adorned with universality. (p. 22)

Coleman (1997) further emphasizes that social capital which exists in relations among people both as obligations and expectations, information channels and as social norms, facilitates "certain actions of actors – whether persons or corporate actors – within the structure" (p. 81). He states that social capital can be a useful resource for individuals because people expect their actions to be reciprocated.

In Cameroon as in other communities, people are always doing things for each other. It is evident during the birth of a child, during funeral celebrations and in some cases helping one's daughter or son to gain admission into a college. In such a case then, individuals with a lot of credit slips can be said to possess more social capital than those without. Furthermore, in certain societies a subtle prescriptive norm exists that provides rewards for achievement. In Cameroon, people celebrate graduation from kindergarten, primary school not to mention success at the GCE O and A levels. In fact, the university is flooded with relatives from across the country during convocation ceremonies. Such norms provide social support, honour and other rewards to successful individuals thereby motivating them to perform well at college in order not to bring dishonour to their family.

Sociological perspectives on decision-making underscore the importance of the socio-economic background of the family, and the historical influence on risk-taking behaviour and choice outcome that different people value. If one's family values have constantly reinforced a set of behavioural standards to be achieved in order to avoid tarnishing the family name or being considered unworthy of family support, it is understandable that one's motivation will differ from another person whose environment calls for a different behavioural standard. If

one's gender or race has been an obstacle to accessing certain educational opportunities, it takes an extra amount of effort, persistence and ability to gain access to such opportunities. Although the education and subject choice of students from different racial or socio-economic backgrounds may be similar, their expectations of being able to achieve their goals will differ.

The preceding approaches to decision-making provide a basis for understanding how individual characteristics and the social context of Cameroonian female secondary students influence their choice making. Status attainment theory identifies individual characteristics that relate to status attainment. Decision theories are concerned with how people make choices. The sociological perspective of the decision theory approach draws our attention to the social and institutional contexts that influence rationality in decision-making. It also underscores the crucial role that social structure has in determining the kind of information and encouragement that people from different socio-economic backgrounds are likely to receive and how this influences their decision-making. Status attainment and decision theories are useful in that they present individuals as rational beings that seek to maximize their rewards given certain needs and abilities within a given context. Rational theory suggests that decision-making takes place within a system of constraints that involves re/negotiation between an individual's desire and those with whom that individual relates (for example, family and community).

However, decision theories with an emphasis on rational behaviour carry a liberal notion that each individual has the power to determine her destiny and influence what happens in her future. These theories are unable to explain and examine the construction of gender and its interrelationship with the school, family and work. Consequently, status

attainment and decision/rational theories do not elucidate the ways schools reproduce gender inequities in women's work and the paid labour force. They also give no attention to the complexity of an individual's consciousness and the existence of ideology and culture that makes up every social context. Therefore, it is imperative to draw on the discourse of feminism, particularly African feminism to highlight how gender patterns, inequities, perceptions and expectations are produced and reproduced over time.

African Feminist Perspectives on Gender

In most countries of Africa whole sectors of the economy, such as internal trade, agriculture, agro-business and health care are in the hands of women.

Ama Ata Aidoo, West Africa, September 9-15, 1991.

Gendered identities are constructed from the expectations and beliefs that families, teachers, peers, schools, and media have for females or males (Weiler, 1988). These expectations and beliefs are contradictory and in conflict because in the everyday world forms of power and privilege "work together in a complex and mutually reinforced process to make up the social reality" (Weiler, 1988, p. 28). As seen in the previous sections on status attainment theory and decision theoretical approaches, these theories alone are unable to explain how power came to be inequitably distributed within society and in this case, within the African society.

I use socialist feminist theories and theories of African scholars on gender to outline an African feminist/womanist perspective on gender and its implications on schooling. This provides me with an added lens to analyze how gender relations within the family and Cameroonian society have relegated women to non-scientific and non-technological areas of specialization in education and the labour market. I seek to understand how consistent

patterns of inequality are reproduced, appear to be freely chosen over time, and how they are contested.

The rise of the feminist movement in the West and its early rather liberal generalization of the category "women" stimulated debates around the globe about the elusiveness in its claim to represent women from different geographic locations, and ethnic, racial and sexual orientations (Aina, 1998; Hooks, 1981; Hudson-Weems, 1998; Mohanty, 1991). This led non-Western feminist scholars to question the rationale for using Western perspectives and theoretical frameworks in understanding women in places other than the West. In some cases, Third World women were characterized as single monolithic subjects rather than in the full diversity and complexity more appropriate to their reality (Mohanty, 1991). Amadiume (1987) and Oyěwùmí (1997) corroborate Mohanty's view in declaring that African women's experiences have been distorted not only in Western scholarship but also in some of the works written by African men. Hence African feminism strives to understand women from their perspective (Nnaemeka, 1998; Ogbomo, 1997; Oyěwùmí, 1997), and recognizes the diversity of the category "women" (Mohanty, 1991) through class, race, and ethnic differences.

The present debates on the diversity of the category "woman" pervade the African continent, as the feminist spirit that permeates the region is in "itself complex and diffused that it is intractable" (Nnaemeka, 1998, p. 5). Various African scholars champion and promote an African theory ingrained in the everyday experiences of African women and that addresses their needs and concerns. Hudson-Weems (1998) advocates for *African Womanism*, that is "grounded in the African culture and, therefore, it necessarily focuses on the unique experiences, struggles, needs, and desires of African women" (p. 155). According

to Hudson-Weems, African Womanism is neither Black feminism nor African feminism (that advocates for power sharing, complementarity, accommodation of men, compromise, negotiation and inclusiveness), or Walker's (1983) womanism (a feminist of color, who loves other women sexually/or non sexually). Rather, it critically focuses on the experiences of African women. Nnaemeka (1998) cautions that African scholars working on gender relations in Africa risk "subtending the unexamined exaggeration of gender complementarity that masks real insidious gender inequalities and conflicts" (p. 20).

These different perspectives on African feminist or womanist theories fail sometimes to explain how compromise and power sharing can be negotiated in African societies that are predominantly patriarchal. The one thing that all African scholars who advocate for the advancement of women strive for is the need for research that views African women as subjects and knowers. African feminist theory must therefore focus on "What African women are doing with/to patriarchal and cultural structures, and decentres but keeps in view the ever pervasive litany 'particularly in Women's studies' of what patriarchy is doing with/to African women" (Nnaemeka, 1998, p. 4). Stamp (1995) contends that a text that deals with African women must ask questions that elicit what women are doing as active agents of resistance to bring change into their lives. It is for this reason that this research focuses on the everyday experiences of secondary school girls and the complexities that underlie their decision making about subject choices as they prepare for their future occupational and familial lives.

The problematic of redressing gender inequities in Africa has prompted a number of debates about the position of African women/scholars in relation to advocating for women's equitable access to resources. While some African scholars argue that African women were

feminists even before the term feminism was coined, others posit that the term feminism does not adequately capture the complexity of the African woman's situation. As a Cameroonian woman studying in British Columbia, Canada, it has been very challenging going through myriad articles and trying to outline the distinctiveness of African feminism and importantly, African perspectives on gender and education. My discovery is that there is no coherent African feminist theory, neither is there one that addresses issues on gender and education but a number of scattered ideas of what should constitute African feminism/womanism. Essentially, African feminism should capture "the fluidity and dynamism of the different cultural imperatives, historical forces, and localized realities conditioning women's activism/movements in Africa from indigenous variants to the state sponsored configurations in the postcolonial era" (Nnaemeka, 1998, p. 5).

> Borrowing from a political scientist's viewpoint, Somerville (2000) points out that, While not wishing to deny the powerlessness of so many individuals in the face of overwhelming might of mass organizations, … *we are not victims of such powers except insofar as we choose to be so*. Our choices are constrained by the contexts within which we act, but these constraints do not enslave us. Far from it: contexts themselves provide opportunities for action and therefore make liberation possible. (preface)

If African women are consciously shaping their destinies based on their experiences then a text that deals with them should present them as social actors who use the opportunities, which are available in their contexts to achieve their material needs. Though the girls in this inquiry might be limited economically to aspire to their ideal occupations, they formulate strategies aimed at succeeding within the Cameroonian system in which they are part of, and

work within the constraints and opportunities available to them (Amadiume, 1987; Ogundipe-Leslie, 1994; Oyěwùmí, 1997).

An African feminist perspective considers the relationship between women's schooling and women's work in order to show the interconnectedness of schooling and the economic system. If the relationship between women and men in a given society is interconnected and overlapping, then there is the need to look at the relationship between gender, class, ethnicity and religion. After all, Weiler (1988) contends that individuals are always in the process of forming social relationships and individual human beings within a web of power and material constraints construct these associations.

Educators and development experts need to examine the ways in which African schools function to reproduce gender divisions and oppressions. There is a need to understand the ways schools serve as apparatuses of state ideologies to prepare girls to accept their roles as low paid workers, unpaid workers, and/or wives and mothers.

In order to achieve this, the lived experiences of girls in schools need to be understood. As Nnaemeka (1998) postulates, ideological forms of masculinity and femininity cannot be separated from their historical specificity, the material basis of patriarchy nor from class structure. We need to understand gender within specific historical sites, and in different geographical neighbourhoods of Africa.

African Feminist Theory

An African feminist theory on gender and education needs to address the following questions: Is African women's work in the paid labour force and in the domestic realm valued? If not, how is this devaluation reproduced by what happens in schools? Are there

statistical analyses to show the inferior position that women occupy in the economy, and are they tied to the sexist texts and discriminatory practices in schools? Do the educational policies of various governments adequately address gender equity issues? Do the educational policies carry hidden assumptions about women's proper role in the economy?

Customarily, the African woman's social position has been relegated to the realm of reproduction and looked upon as innate. Some have attributed it to physiological and psychological differences such as lack of aggressiveness and tendency to nurture, to justify the continued devaluation of women's work and their relegation to the home and family. The failure to recognize women's unpaid work as wives, mothers, traders and farmers encourages African girls to see themselves as insignificant and devoid of any economic value to the society. This is patriarchy and it is being perpetuated by the legal system that fails to recognize women's contribution in the institution of marriage especially in instances where wives do not always inherit or are not part of the decision-making about property ownership.

The role of women in doing the unpaid labour of nurturing, feeding, and caring for the material needs of the children is not a reflection of the innate tendency to nurture, nor is it women's fault but part of the existing social division of labour within the growing capitalist states in Africa. The emphasis on women engaging in paid work, especially in the areas of science and technology as the only meaningful work, ignores the importance of domestic work, a domain that has been defined as "women's sphere" as far back as indigenous societies. The ideology that nurturing and child rearing are primary work for women profoundly shapes the way young women perceive their future roles and the kinds of work that they can aspire to by making girls believe that certain jobs are unnatural for them. The

notion that characteristics of nurturance, sensitivity and caring are natural to women streams young women to certain occupations and not others.

African feminism seeks to understand the reasons for inequality of representation of women in positions of authority, for example, within more authoritative positions in schools. It seeks to comprehend the way knowledge is distributed in the classroom and the social relationships of schooling. How do female and male teachers treat girls and boys, and how do their expectations of the girls and boys differ? Do girls/boys get less attention in the classroom? Female and male teachers from different ethnic, religious and socio-economic backgrounds have varying expectations for their students and hold subjective views of what is gender appropriate.

Studies of African girls and women should strive to reveal ways in which their lives reflect the forces of production and reproduction and ways in which they experience the social world of the family and unpaid labour, sexuality and childcare that is found in the private world of the family. They should also analyze women's lives as the forces of production and reproduction shape it in different patterns of relationships and the socio-cultural context. Such studies will include both private and public sites, definitions of both waged and non-waged work and an analysis of sexuality as both public and private spheres are intertwined as they make up the cultural whole.

This chapter examined some theories that shaped my analysis and interpretation of female secondary students choice making process in Cameroon. It began with the status attainment model, which sheds light on how individual factors of socio-economic achievement and educational achievement affect occupational attainment. Because the status attainment model focuses too much on individual influences and fails to examine the macro

processes of economic, social and cultural influences, decision theoretical approaches were deemed to provide a somewhat comprehensive framework on which to base analysis of the choice making process. Decision theories thus provided some insights on principles of rationality from a practical and technical reasoning standpoint, and also highlighted aspects of the social, cultural, and economic context of decision-making. While status attainment and decision theoretical approaches provide valuable lenses to understand the choice making process, it fails to situate decision-making in the African locale and within the discourse of gender and education. Hence, African feminist perspectives on gender provided an added lens to understand how issues of power and privileges are negotiated. In the following chapter, I provide a description of the data collection methods, description of the participants and the research site. An analysis of the data is provided in chapters 5 with the findings and conclusion in chapter six.

CHAPTER FOUR

RESEARCH DESIGN AND SETTING

Adiro akwu ofu ebe enene nmanwu – one does not stand in one spot to watch a masquerade.
As with the dancing masquerade, vantage points shift and one must shift with them for maximization
of benefits.
(Nnaemeka, 1998, p. 3)

The above quotation from Nnaemeka spells out a very important consideration that a

researcher has to have in mind when observing, that of multiple perspectives. Although a

literary scholar, Nnaemeka draws on the artistic performance of a masquerade to illustrate

and emphasize the need for observers to watch the masquerade from different angles and

vantage positions. The quote reminds me of the essence of triangulation (using multiple

theories and data collection strategies) to conduct and develop a rich research analysis. In the

previous chapter I examined a number of theoretical frameworks for understanding the

choice making process. This chapter provides an overview of the data collection and analysis

strategies and a portrait of the research site and the participants. It concludes with a reflection

on the dilemmas of doing research as an insider and outsider and the politics of speaking for

others.

Three data collection strategies are used in this study. They include participant

observation, interviews, and focus group discussion. Data collection methods are discussed in

the subsequent sections.

Data Collection Strategies

As a researcher interested in understanding and challenging the schooling process in Cameroon as it reproduces dominant patterns where girls continue to choose the arts over the sciences, I sought to adopt a critical feminist stance in collecting data. Critical feminists claim that while "fieldwork is important for correcting patriarchal bias of the social sciences, feminists generally have not claimed that fieldwork is *inherently feminist* or that qualitative methods such as fieldwork are the *only* research methods that feminists should utilize" (Reinharz, 1992, pp. 47-48). Dyck (1993) emphasizes that what constitutes feminist research is the "worldview or theoretical orientation that guides the conceptual framing of the research, its questions and the choice of data collection and analysis techniques" (p. 53). However, feminists (Dyck, 1993; Reinharz, 1992; Roman, 1993) have identified fieldwork or ethnographic methods (participant observation, interviewing, and archival analysis), as being more "amendable to reaching the 'mundane' and 'commonsense' . . . small human actions that make up and change our lives and our analytic categories" (Dyck, 1993, p. 53), and through which we can build a woman centred knowledge.

The fieldwork for this research began in January 2001 at Bilingual Grammar School (BGS) in Cameroon and continued until December 2001. During this time, the girls who were the focus of the research completed form four in June and continued into form five in September. The fieldwork consisted of participant observations, interviews, and one focus group discussion.

Participant Observation

I began participant observation in BGS in January 2001. During the first six weeks, I focused on getting to know the form four female students, and cultivating mutual and

respectful relationships with them. During this time I distributed consent forms, answered questions about the research, informally chatted with students about their families, and thus made informed selections of participants. Throughout the study, I observed the students during lectures in their classrooms, school assemblies, club activities, and around the school campus at lunch and break times. I particularly focused on the girls and attempted to detect gender differences during these school activities. Observations enabled me to understand how form four students interact with each other, and the kind of relationships they have with their teachers, school and class mates. I also tried to understand if friendship was established based on gender, ethnicity, social class, and academic performance, or just because they simply liked the other individual.

After initial introductions to all the form four classes, I continued to observe in most of the classes and during recess throughout the research period. I established rapport with the participants and earned their trust as we overcame issues of diversity, social class and ethnicity in our daily interactions. Because I was an outsider to the school, the students initially thought that our interview sessions would be a form of examination. However, my continuing presence in their classes and school during observations overcame this initial concern.

The girls began to feel comfortable to discuss academic and personal issues with me and viewed me as a helpful adult in the school setting. Their confiding in me about certain issues in their lives led me to assist some of the girls financially and academically. For example when one girl expressed her difficulty in acquiring exercise books for note taking, I felt compassionate to give her money to buy a few. Also, when I met a few girls struggling with one of their literature novels that I had read and taught, I provided them with some

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insights and suggestions on how to proceed with their reading. Thus my presence as a researcher in the setting led to some changes that might otherwise not have occurred.

My observations throughout the study were documented in field notes assembled in a field journal. My notes were made mainly about my observations in the school context and captured my reflections on the interviews and focus group discussion. The field notes include the time and place of each observation, the people present, and how they interacted with each other. They describe what I saw and heard and my interpretations of those events.

I periodically checked my field notes during the research process to track how my understanding of the girls' interactions with the subject matter, their peers, and teachers changed over the period of the research. For example, I had thought when I conceptualized the study that ethnicity might impact the girls' schooling experiences and subject choices. However, during the observations and interviews, I learned that ethnicity was not a factor in the girls' interactions with their teachers or in making friends with other students.

Interviews and Focus Group Discussion

Interviewing was the major method of data collection. Most girls participated in two interviews and one focus group discussion. The first interview was conducted individually with 20 girls during February to May of 2001 while they were completing form four. The second interview occurred during September to November 2001 with 15 girls while they were in the first term of form five. The final focus group discussion involved all 15 girls in December of 2001.

Table 4. Research Participants and Dates Interviewed

Names	First Interview Date	Second Interview Date	Focus Group Date
Len	02/03/2001	26/09/2001	5/12/2001
Mai	01/03/2001	03/10/2001	5/12/2001
Fri	05/03/2001	10/10/2001	5/12/2001
Clo	23/02/2001	Dropped	Dropped
Isa	16/02/2001	19/10/2001	5/12/2001
Rej	16/03/2001	24/10/2001	5/12/2001
Ellen	14/03/2001	Dropped	Dropped
Lyn	19/03/2001	10/09/2001	5/12/2001
Eli	21/03/2001	19/09/2001	5/12/2001
Mak	28/03/2001	28/09/2001	5/12/2001
Meba	31/03/2001	15/10/2001	5/12/2001
Ndi	26/03/2001	29/10/2001	5/12/2001
Tennie	06/04/2001	02/11/2001	5/12/2001
Jane	11/04/2001	5/11/2001	5/12/2001
Shirley	18/04/2001	9/11/2001	5/12/2001
Kris	25/04/2001	14/11/2001	5/12/2001
Noel	03/05/2001	Dropped	Dropped
Fannie	10/05/2001	21/11/2001	5/12/2001
Vera	17/05/2001	Dropped	Dropped
Emily	21/05/2001	Dropped	Dropped

After the end of third term vacation, five students dropped out of the research study and therefore did not take part in the second interview or focus group discussion. Noel, Vera and Emily were not promoted to form five. They were repeating form four and decided not to continue in the study. Clo's parents were transferred to another province and she did not return in September to BGS, and Ellen decided not to take part any longer in the research study.

Each individual interview lasted for 30 to 45 minutes. It was conducted during a time when the girls had a free period and in a quiet location on campus. Sometimes this may have been in an empty classroom, in the corridor by the library, or outside under a tree. The one focus group discussion conducted with all the girls lasted approximately two hours and took place in an empty classroom.

I conducted the interviews in English because English was the language of instruction for the students. My observation phase, as discussed in the previous section, helped me develop a rapport with the girls because I met with them informally, talked to them in and out of class, and became acquainted with some of the slang they used. Even when I thought sometimes that I understood what a student said when she was using slang, I asked for further explanation to be sure my understanding was correct. However, my researcher-participant relationship was put to a test when I started interviewing. During the first five interviews, the responses were very short and direct, some of the students felt very tense and I realised that the presence of the tape recorder was not helpful. Growing up in a society were everything counts, that is, the way you sit in class, how to talk to people who are older than you, your behaviour at school and following a school system that is examination driven, the girls initially saw the interviews as another test or examination. I decided to change the way I opened an interview by talking about things that they do in a typical day and then gradually move into the interview topics. I constantly reminded them that the interviews had nothing to do with their academic work or grading at the end of the term and also that they had the right to choose not to participate or disclose any information that they thought was private. This reassurance helped a lot as I found the students became more willing to tell me their stories.

Interviewing was chosen because I sought to understand form four girls' perspectives of their schooling experiences and their decisions about subject choices. As Reinharz (1992) points out, semi-structured or unstructured interviews enable the researcher to interact with participants, explore their view of reality, and provide opportunity for clarification and discussion of viewpoints. Importantly, Reinharz maintains, "interviewing offers researchers

access to people's ideas, thoughts, and memories in their own words rather than in the words of the researcher" (p. 19).

Interviewing made it possible for the girls to share their concerns and experiences and conversation became open when they realized that I shared a similar background with them having been a student myself at the school. I formed different kinds of bonds with the participants. I became friendly with most of them and our friendliness was a kind of senior sister – junior sister relationship. It was built on trust and mutual respect. To date, I remain in contact with some of the girls as we talk on the phone, exchange e-mails in which we talk about their schoolwork and wellbeing and my research progress. As a feminist researcher, I believe maintaining these relationships are important in order not to become the "researcher who acts like a 'friendly stranger' who disappears after the collection of data" (Kirsch, 1999, p. 30).

The interviews followed different formats for specific reasons. The first interview focused on the girls' schooling experiences, what influenced their decisions in selecting subjects for form five, and their perceptions of the process. The second interview was an extension of the first interview and focused on teachers, teaching, and the girls' future occupational and family aspirations. As a final interview, I chose to do a focus group discussion because I wanted to probe with the whole group the responses they gave in earlier interviews. I also wanted the girls to have an opportunity to share their experiences and perceptions so they would not believe that they were the only ones experiencing certain things.

The interviews covered three general topic areas:

Educational experiences, aspirations and achievements. We discussed the girls' experiences as students at BGS and some of the things that characterize a typical day for them at the school. This led to talk about their perceptions of instruction as they experienced it. The girls also talked about conditions that facilitate their studies and the difficulties they faced at home and school that affect their academic performance. We discussed their future aspirations in light of their present accomplishments.

Decisions around subject choices. We talked about the subjects the girls were planning to take in form five. This led to talk about the influences on their decisions to select certain subjects. We also talked about the subjects they would love to take but were not taking for some reason. The girls emphasized the help they were getting from family, friends and siblings in making their subject choices. We discussed whether they believed they had different career aspirations from the boys.

Family and sexuality. We discussed issues pertaining to their families and their expectations for being wives and mothers in the future. We also talked about the expectations their families and parents had for them as sisters and daughters, and whether these differed from the expectations they saw for their brothers. This led us to talk about whether they planned to have children in the future, the number of children they would like, who will look after the children, and the housework they expected their future husbands to do.

Both interviews with the girls and the focus group discussion were audio taped and transcribed verbatim for coding and analysis. After each interview, I listened to the tapes and wrote field notes reflecting on the experience. As I listened to the tapes, I considered the type of questions I asked and the responses I got. I was able to identify emerging themes and areas

I needed to probe further. Before each interview, I reviewed my field notes about the previous interview(s) and used this to set the direction for the next interview or discussion.

Data Analysis and Interpretation

Although the interpretation of my research data strives to sufficiently represent the complexities of the experiences of the girls in this study, I became conscious as a researcher of the limitations in interpreting and shaping the final account. My deliberate engagement in different kinds of relationships with the girls to understand their experiences does have some ethical and epistemological challenges (Tom & Herbert, 2002; Tom, 1997). Because critical feminist ethnographers bring their histories to the research, their biases have a bearing on the way the inquiry is shaped. From a critical feminist ethnographic standpoint, the researcher must be able to strike a balance between her experiences as sources of understanding, and the participants' constructions so that her life experiences do not engulf the inquiry (Nielson, 1993; Roman, 1993; Stack, 1996). This balance is approached through reflexivity, which Alcoff (1991) describes as an ongoing process of negotiation and renegotiation, construction and reconstructions, identifying prejudices and bias growing out of the researcher's life along with the insight and resonance that enriches the inquiry.

Reflexivity is a dialectical process, that involves the researcher and informants' constructs on the one hand, and the structural, historical and ideological biases that inform the inquiry on the other. Reinharz (1992) contends that one of the ways to constantly attend to biases is for the critical feminist ethnographer to incorporate her autobiography in the research text as a means of continually deconstructing her position(s). Hence, I elaborate my story in the final section of this chapter.

As I listened to the interview tapes while I transcribed them, I relived the interview moments with the form four girls. Each girl's voice evoked visual images; I remembered the smile, I recalled the hesitations, and pictured the enthusiasm on their faces. These memorable moments and powerful voices were regrettably arrested on paper in the form of transcripts. Unfortunately, when I read the transcripts, they do not convey the same feelings as when I listen to the tapes. However, they enable me to dissect the text, read and re-read, and listen to the written words talk back to me in different ways. I used the transcripts to identify themes and the patterns of relationship between themes. I clustered and categorized the themes to construct a coherent account of the influences on the girls' decisions about course selection that is presented in the next chapter.

As I worked on the data analysis and interpretation, I realized that my own journey as a researcher was a choice making process. It began with the choice of research site, the data collection methods, and decisions on how to analyze and write the final account. In my attempt to validate and give voice to the participants' experiences, I was challenged to reduce and transform rich and multi-layered data into a coherent account. I sought to paint a vivid portrait that depicts form four girls in their social context, using their language and their perspectives to capture their experiences. I do not claim that this account represents the experiences of all form four girls in Cameroon. However, it is my hope that students in Cameroon and elsewhere who read this will be able to identify with the experiences of these girls' and derive from them a further layer of meaning.

The Research Setting

The setting for this research was Bilingual Grammar School (BGS) in the South West Province of Cameroon, a public secondary school enrolling approximately 2,643 students in Form 1 to Upper 6th of secondary school.[4] I selected this site because of its geographical location. The school is located in an urban town that is the government centre for a region having a population of approximately 248,032 with 129,668 living in the urban area and 118,346 living in the rural area (*Second General Population Census*, Cameroon, April 1987). The area is made up of towns and villages, each headed by a first, second or third class chief depending on the population of a village. Men have always held the positions of governor, senior divisional officer, and district officer for the region since they were created during colonial rule.

The students attending BGS are from different socio-economic and cultural backgrounds, representing the social and cultural diversity of Cameroon and providing a good setting for this study. I also selected this site because I was a former student at BGS for my lower and upper 6th levels of schooling. It was part of my reality that I now wanted to re-examine. I had taught in the technically oriented secondary school located across the street from BGS and had the opportunity to work with teachers of BGS on several occasions between 1994-1998.

BGS opened at Man-O-War Bay in Victoria in 1963 three years after Cameroon attained independence from French and English colonial rule. The first principal, Mr. Rollet and vice principal, Mr. Denis Ropa were British. When the school moved to its present site in

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[4] Administratively, Cameroon is divided into ten provinces with the province being the largest administrative unit and headed by a governor. Each province is further divided into divisions, sub divisions and districts.

1969, it was under the leadership of a Frenchman, Mr. Jean Sorola who took over from the Mr. Denis Ropa and who subsequently handed it over to the first Cameroonian principal, Mr. Meva Ondo Henry. BGS was the first bilingual secondary school opened in Anglophone Cameroon to foster bilingualism (English and French) in the country. Initially, it admitted only boys. Girls came in much later and only two girls were admitted in the first year out of a total student population of close to 200. From its inception, the school offered boarding facilities funded by the state but due to the economic crisis of the 1980s, the boarding facilities were discontinued.

BGS is a government-funded (public) school. Like all other government schools in the country, the Minister of National Education appoints the principal who heads it. Two vice principals, one for the English-speaking students and the other for the French-speaking students, and eight masters of discipline assist the principal. BGS contains two different systems of education, the English system modelled after the former colonial power of Southern Cameroon, Britain; and the Francophone system fashioned after the former colonial power of East Cameroon, France. Bilingualism is promoted in forms four and troisième where outstanding English and French speaking students are streamed into the same class. These students receive lectures in English and French in preparation for the General Certificate of Education (GCE) Ordinary Level (O/L) examination and the Brevet d'Etudes du Premier Cycle (BEPC) the French equivalent.

Table 5 below illustrates the major sections of the school and the structure of secondary education in the English and French speaking parts of Cameroon.

Table 5. The Structure of Secondary Education in French and English Speaking Cameroon

English Speaking Students		French Speaking Students	
Arrangement of classes	Certificate	Arrangement of classes	Certificate
Second cycle		2nd Cycle	
Upper 6th --------------- GCE A/L		Terminal -------------- Baccalaureate	
Lower 6th		Premiere -------------- Probatoire	
		Seconde	
First cycle			
Form 5 ---------------- GCE O/L		1st Cycle	
Form 4		Troisième ---------------- BEPC	
Form 3		Quartieme	
Form 2		Cinquieme	
Form 1		Sixième	

Adapted from Nwana, E.M. (2000). *Coping with British and French inherited systems*, p. 12.

In the English system, the first cycle is sometimes referred to as secondary, and the second cycle is referred to as high school. The first and second cycles are further sub-divided into the English and French streams. Students in the English stream spend five years to enter for the GCE O/L examination, their counterparts in the French stream spend four years to obtain their BEPC. Nonetheless, in the second cycle or high school, students in the English stream spend two years to obtain their GCE A/L while those in the French stream spend three years and obtain a Probatoire in the fifth year and Baccalaurete in the seventh year.

In 2000/2001 BGS enrolled 2,643 students. Of these, 872 girls and 798 boys were enrolled in the first cycle (a total of 1,650 students). In the second cycle 444 girls and 549 boys (a total of 993 students) were enrolled. Although the total enrolment of girls and boys dropped by 40% from the first to the second cycle, the dropout rate for girls was higher than for boys between cycles one and two. The percentage decrease for girls was 47.9% while for boys it was 31%.

<u>Bilingual Grammar School</u>

BGS is a large sprawling compound, surrounded by a fence of cement blocks and hedges. It consists of nine separate buildings. Approaching it you first notice the extensive cement block fence with a large iron gate in the middle. The low sprawling pink, white and yellow building that houses the administration section, the science laboratory and classrooms is immediately visible.

Figure 1. Main buildings of the school

Parts of the school buildings are made of a combination of cement and stone that creates a striking black and white façade to all of them. The town is located at the foot of Mount Cameroon and the school grounds retain the stones that also make up the pathway to the main building. Trees shade the administration building and shelter the cars in the adjacent parking lot.

From Monday to Friday, all the students are expected to be in school from 7:30 a.m. to 3:10 p.m. The students who attend BGS come from the local region and neighbouring towns within a 10 km radius. The majority of the students walk to school, many come by taxi, and a few are dropped off by car at the school gates either by their parents, guardians, or family friends.

Figure 2. Students dallying at the school entrance

At about 7:00 a.m. from Monday to Friday the roads are flooded with students dressed in sky blue tops over navy blue. The girls are supposed to wear sky blue blouses tucked into their straight skirts which should be knee length or below but not above. However, some girls enjoy wearing jackets, like the boys. The boys wear sky blue jackets over their navy blue pants but unlike the girls, they don't have to tuck in their jackets. On the left side of all the jackets is a single pocket with a badge carrying the logo of the school.

Above the badge is the name and class of the student. The badge and the school logo, according to one of the vice-principals:

> Help us to identify a student in and out of the school. Take an instance where a student is involved in an accident on their way home from school. Anyone seeing that will be able to say that the student John is from BGS and in Form 1B. We have more than two thousand students here with eight masters of discipline. There is no way you can keep track of all the students' names let alone their classes. But with the name and class stitched on the top of the left pocket, we identify students at a glance. (Field notes, January 29, 2001)

Although most of the blouses and jackets have a badge on them, the stitching of the names was not uniform. Some students used a ballpoint pen to write their names, and some of these were wearing off, probably after a few washings. Others stitched the first few letters of their names, while some went with no names at all.

The school bell rings every morning at 7:30 a.m. for morning assembly. The students run from the north, east, west, and south of the school toward the assembly hall located at the northeast corner of the campus. Masters of disciplines move from one class to the next, sending out students who would rather stay in class than attend morning assembly. At the main entrance of the school, prefects with papers and pens in hand scribble the names of latecomers. Some run past them, at times with such speed that the attention of the prefect is distracted. Other students, who are left outside of the gate, plead with the gateman to open it for them to no avail. Their opportunity to enter usually surfaces when the gates open for a car to enter. Then all the students standing outside the gate swarm in behind the car, running to their classes so that they are not caught and booked for punishment.

Morning assembly usually takes place in the huge school assembly hall, which the students call the gymnasium. I called it gymnasium when I was a student at BGS. I remembered that we used the hall for ballet, drumming, and music competitions. These were forms of physical activity organized around youth week that occurred in late January to mid-February, along with other sporting events like soccer, handball, and volleyball. Throughout the ten months of my research at BGS, I didn't see the students use the hall for any of the things that we had used it for. I therefore conjectured that new students are introduced to the title "gymnasium," and continue to use it although very few sports now occur in the space.

The assembly hall is large and empty with a stage at the front. While all the students stand below the stage during assembly, those conducting the morning devotion (school prefects or a master of discipline) stand on the stage and can see most of the students below. From outside the assembly hall, a passer by would have the feeling of encountering a beehive. As soon as the devotion leader calls for order, the hall falls into dead silence with an occasional comment, slang or jeering from a couple of students if something attracts their attention. Although students are supposed to be quiet during this time, this kind of behaviour happens occasionally and sometimes some students are identified and punished. Assembly usually lasts for thirty minutes during which the students say the Lord's Prayer and sing the National Anthem. After that, general announcements are made about events of the week. Sometimes the principal or vice principal addresses the students. After assembly, the hall once again becomes a beehive of noise as the students disperse to their classes with much animated conversation.

I follow the students to their respective classes. Most students move into their classrooms, some yelling at their classmates to give them something. A few students pick up

brooms and sweep the classroom floor. When the first teacher appears at the front of the classroom signalling the beginning of a lesson, students hurry to their seats. Those sitting on top of the table take their places on their chairs and a handful of students walk leisurely out of the class if they are not taking that subject. A typical day for all students in the school consists of eight periods, each about fifty minutes in length. When the fourth period ends at 11:20 a.m. students have a long break for thirty minutes.

Break is one of the most interesting times of the school day. When the bell rings for break, the students wait for the teacher to leave the classroom before they can leave. Students become restless after the bell rings and in some cases a few students drag their feet on the floor as if they are about to leave their seats, as a way of reminding the teacher that the period has ended. When the teacher leaves the classroom, students leave their seats, some stretching, others calling on their friends to join them for lunch. A few remain in the classroom either resting their heads on the table to get a quick nap or talking to friends. It isn't unusual to see girls and boys standing and talking together, but often students cluster in same sex groups during break. A few junior students huddle by the windowless form four classrooms looking to catch a glimpse of an elder sister so they can collect money for lunch. I realised that students who had siblings in the junior classes often take the responsibility of keeping their pocket money or sometimes saving lunch for them during break.

Figure 3. Students buying food from a section of the dining area

About twenty minutes after break begins, some students in groups of two, three, four and sometimes six or ten return to the classroom with their lunch. Often the girls bring their food to the classroom and eat with their friends while the boys eat in the food area. There are two open areas for obtaining food during break with inadequate seats provided. There is an open Coca-Cola stand across from the form four classes where peanut butter or egg sandwiches are sold with a variety of soft drinks. Students may buy a sandwich and either move to the side to eat, or take it to their classroom where they eat and talk with their friends. There is a water tap in front of the Coca-Cola stand, which students use after lunch. Most times students open the tap with their left hand and use their right palm to collect the running water, which they gulp down almost immediately.

Figure 4. Students drinking water from the tap

Some students walk from the north end of the school campus to the south eating and walking as they go. While break looks interesting, students often complained to me of being tired after break. At 11.50 a.m., the bell rings to mark the end of long break and students move to their classes for the last four subject periods of the day. By 1.30 p.m. some students begin to yawn, others doze off occasionally and are caught sleeping as the teacher suddenly asks them a question.

Clubs or extracurricular activities are scheduled each Wednesday afternoon from 1:30 to 3:10 p.m. and are meant to bring together students from different classes who share a particular interest in an activity. The clubs in BGS range from Bible, environmental, drama, debate, dance, music, drumming, soccer, to the Female Education in Mathematics and Science in Africa (FEMSA) club. When I heard about FEMSA being one of the clubs in

BGS, I became very excited about it and wanted to see what was going on in the club. I journeyed to BGS to understand female students' subject choice decisions especially since there was criticism that girls were not getting into the promising areas of science and technology. Here I was in BGS with a club aiming to promote female students in areas of science and technology. I anxiously waited for Wednesday the 21st of February to come. I was at the FEMSA class at 1.35 p.m. and to my dismay, 45 of the 70 students who attended on this day were males. Where were the females, I asked myself? Why did they not attend the club, which was meant for them?

The organization of this club was not different from the way other classes in BGS were organized.

Figure 5. A typical classroom in BGS

The FEMSA teachers were usually male teachers who stood in front of the class lecturing to the students who are "often positioned as recipients of knowledge, as subordinates within a formalized social structure, persons supposedly waiting for information to be given to them" (Stambach, 2000, p. 14). I also learned from the students that they had to pay for FEMSA classes, which implied that only students who could afford the 1,500 francs (approximately $4 Canadian) monthly charge attended. I was disappointed to realize that an initiative like FEMSA, that had the purpose of encouraging female students to study the sciences, in actuality, served male students who already had an advantage. The science teachers of BGS, who are mostly male, ran FEMSA and asked for fees as their compensation for the work done. FEMSA, as it turns out, did not have the students' interest at heart but became a money making venture for the teachers who delivered remedial classes in chemistry, math, further mathematics, physics, human biology and other science subjects. Most of the female students I interviewed were not enthusiastic about FEMSA.

Research Participants

When I first arrived at BGS, I met with each of the three form four classes and talked to both the boys and girls for about 10 to 15 minutes about the research I wished to do. I invited the girls in each of the classes to participate in the study. I explained the objectives of the research and emphasized that their participation was entirely voluntary. I reassured them of their confidentiality. I distributed two letters and consent-to-participate forms to all the girls. One letter was addressed to the parent while the other was addressed to the student. The letters provided a brief description of the study and what I expected of the students if they decided to participate.

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At the next meeting, 90 girls returned their signed consent forms to me, and 70 of them volunteered to participate in the study. In late January 2001, I began individual informal chats with the 70 students who volunteered. I used the chats to get to know each girl and her background a little better. Once I knew them better, I planned to select participants who had spent at least two years in BGS. I classified the 70 students into three areas of specialization: arts, sciences, and combined arts and sciences. I also attempted to categorize according to socio-economic background of the student. I categorized students whose parents were a university professor, medical doctor, provincial delegate or pedagogic inspector, as having an elite background. Those whose parents were seamstress, farmers, drivers, cooks, housewives or doing petty trading were categorized as working class background. Those students whose parents were secondary or elementary school teachers, businessmen, police officers, or technicians were considered of middle class background. Since I wanted participants from different academic specializations and class backgrounds, I grouped the students according to socio-economic backgrounds. I chose 20 students to participate in this study while making sure I had students from different family backgrounds who intended to specialize in form five in the arts, sciences and both arts and sciences. Table 6 lists the girls who were the participants selected for this study. The names used for the girls are pseudonyms.

Table 6. Age, Socio-Economic Background, and Intended Specialization of Participants

Name	SES	Intended Area of Specialization	Age	Parental Information
Mai*	W	science	15	Single Mom Living with uncle - senior discipline master
Fri	W	arts & science	16	F - carpenter M - petty trading/wife
Eli	W	science	16	F - technician M - trader
Tennie	W	arts & science	18	F - Sergeant in the military M - wife
Shirley	W	science	17	F - retired police inspector M - police Major Officer
Fannie	W	arts	15	F - driver M - nurse
Emily	W	arts	15	Single mom - seamstress
Len	M	science	14	F - senior discipline master M - biology teacher
Isa	M	arts & science	14	F - head teacher M - wife
Rej	M	arts	16	F - police officer M - wife
Mak	M	science	14	F - businessman M - secretary
Jane *	M	science	16	F - medical Lab technician (USA) M - Medical Lab technician
Kris	M	arts & science	16	F - retired manager for Shell M - farmer
Noel	M	arts & science	18	F - secondary physics teacher M - wife (deceased)
Vera	M	arts	15	F - elementary school teacher M - petty trader
Clo	E	arts	15	F - university professor M - university graduate (MA women's studies)
Ellen	E	science	15	F - university lecturer M - wife
Lyn	E	arts & science	16	F - pedagogic inspector for geography M - agronomist
Meba	E	arts	15	F - deceased delegate of culture M - wife
Ndi	E	arts	17	F - pathologist M - wife (deceased)

*Those who were living with relatives
F – Father; M – Mother
E –Elite; M – Middle Class; W – Working class

The majority of the girls participating in the study began their secondary schooling at

BGS (75%) and a few of them had spent at least two years there (25%). Some of the students

identified themselves as intending to specialize in arts (35%), some in sciences (35%) and

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some in arts and sciences (30%). Of the 20 students who participated, 25% of them were from an elite background, another 40% from a middle class background, and 35% were from the working class. Most of the students lived at home with their parents while attending school (60%), a few lived at home with a single parent (10%), some lived with relatives (15%), and the others lived by themselves (15%).

The ages of the girls ranged from 14 to 18. Most of the form four girls begin secondary schooling at the age of 11 with the exception of a few girls from the middle class background who begin at 10 years. Others begin at the age of 12 to 14. I also looked at the academic performance of the girls and among the participants there were outstanding students, some who were good, and others who were average. Only three did not pass their promotion examination to form five.

The Researcher as Participant

As I conducted this study and as I write the final account, it became evident to me that reflexivity is pivotal because my perspective as a researcher is constantly filtered through the lenses of gender, social class, race and ethnicity. As a researcher informed by critical, feminist and ethnographic theories and methodologies, I realize that I am part of the social world that I study. Palys (1997) points out that in writing ethnography issues of 'voice' and 'privilege' are crucial because "we cannot study the world without acknowledging the 'we' that is doing the studying" (p. 205). It is for this reason that Lather's (1991) view of underscoring the openly ideological self-reflexivity in social studies resonates with my experience in this study.

I recognized that my construction about the girls' experiences and accounts is in part influenced by my positionality. Although critical feminist ethnography is identified as an empowering research methodology that validates and lends voice to participants' experiences, some scholars argue that it places the participants at greater risk of manipulation or betrayal because the ethnographer shapes the final account (Langel, 1998; Reinharz, 1992; Stacey, 1991; Williams, 1993). Alcoff (1991) categorizes these issues as the problem inherent in speaking for/about others; Wolf (1993) characterizes it as dilemmas in engaging in fieldwork. Alcoff (1991) argues that the positionality of the researcher affects the meaning and truth of what is said and that location bears on and determines the meaning of truth. She proposes that one of the ways to go about speaking for others is to "interrogate the bearing of our location and context on what it is we are saying," and this interrogation of our location should be "an explicit part of every serious discursive practice we engage in" (p. 25). One of the ways I tried to overcome the problem of speaking for the girls is by using many of their voices in the text. I have also included numerous excerpts from the interviews so the reader can enter the conversations and engage in interpretation of the voices. Because I was both an insider and outsider in this research, I have at times inserted reflections on my experiences into sections of this report and indicated how they influence my understandings and interpretations of the data.

While the previous section identifies the problem inherent in speaking for/about others, representation of those groups that have remained silent due to intellectual and social circumstance is crucial in the struggle for political and cultural empowerment. I am conscious of the contradictions of representing the secondary school girls in this study. Lengel (1998) contends that researchers informed by critical feminist ethnographic principles

must attend to the ethical concerns of "elitism, commodification and colonial voice of traditional ethnography" (p. 234), and the complexities involved in creating an ethnographic account through reflexivity.[5] While I agree that this research report may have the potential of exploitation in the sense that I studied the girls for my own gain, to acquire a university degree, it certainly will contribute to the understanding gender relations and girls' decision making about subjects in the schools of Cameroon.

I entered BGS as an insider and outsider. As noted earlier, I had been a student in BGS and had taught in the school across the street. But it was in my last year of my undergraduate studies at the University of Buea when "my eyes were opened" by Professor Ann Loux a Fulbright scholar from Indiana University, whose rhetorical questions at the beginning of her course on Masterpieces in European Literature provoked my thinking. Mommy Ann, as we fondly called her asked questions like "Why are men always drinking beer and women take soft drinks?" "I hear my neighbours returning home at 2:00 a.m. and later in the morning – each time I peep to make sure I am not being visited by thieves, I catch a glimpse of the driver – the man. Why do men return so late?" Her questions opened a new window of thinking. I became interested in gender differences within Cameroon and wondered how gender divisions are created and maintained within society. This led me to interrogate my indigenous belief system, values and norms. At the same time I was reading two novels *Sula* and *Tar Baby* written by an African American woman, Toni Morrison and very rich in folklore. I decided to focus my long essay for the completion of my degree in

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[5] Lengel (1998) extends our understanding of the terms "eltism, commodification and colonial" voice of traditional ethnography. Commodification is used to refer to the transformation of the participants' words into text – commodity. The text serves the intellectual advancement of the researcher. The researcher in this case could be likened to the elite and oppressor. The colonial aspect of the research is implied in the researcher's presence n the field – colonizer. The problem with the researcher's presence in the field is that she escapes prematurely from the field and tries to escape in the final account.

English on the "Feminism in Toni Morrison's *Sula* and *Tar Baby*." My exposure to feminist theories and literature inspired me, hence, my resolve to get a better understanding of gender inequities.

One of the media that attracted my attention was the audio-visual medium and the images of women that it presented. When I gained admission to do an M.A degree in comparative literature, I decided to look at the images of women in selected African and African American video and films. When the opportunity presented itself for me to apply for admission into a doctoral program, I did and was fortunate to secure a place at the University of British Columbia (UBC). At UBC I was fortunate to meet a profound woman, Yvonne Brown, whose mentorship and scholarly exchange in critical consciousness, and diasporic feminisms fostered my quest in African and African diasporic theorizing. It is for this reason that my research is positioned within the discourse of African feminisms. My continuous commitment to equity issues and representation of women's experiences led me to investigate the decision making of secondary school girls, one of the decision points in my life that led me into the teaching profession.

I am a Mopkwe, born in Limbe, an urban town in Fako division of the South West Province of Cameroon. I am the first child of Kinge Daniel Wose and Christiana Kinge. I attended primary one to six in Government School Down Beach Limbe and sat for the Government Common Entrance Examination into Secondary Schools in primary six instead of seven. I succeeded in the written part of the examination but failed to make the oral part in order to gain admission into one of the most prestigious secondary schools for girls in the country, Saker Baptist College (Saker). My father was transferred to another district in the South West province, and this made me complete my primary schooling in Government

School Lobe Estate in Ekondo-titi. My parents' relocation to Ekondo-titi affected my choice of secondary school as they wanted me attend a school closer to home.

I gained admission into Government Secondary School in Mundemba, which was farther from home than Saker. I had to travel for eight hours by river ferry to reach it. Government Secondary School Mundemba was a quasi-boarding school and I chose to live in the girls' dormitory that was located six kilometres away from the school. The dining hall was about a kilometre away from the girls' dormitory. Therefore schooling in Mundemba was difficult as each day I had to walk six kilometres to school in the morning and back in the afternoon and then walk another two kilometres during lunch time and another two during dinner. In all, I had to do ten kilometres of walking each day before I retired to study. After spending three years in Mundemba and due to the difficult living conditions, which did not facilitate my studies, I moved to World Wide Missions Secondary School, Muyuka where I completed my form four and five, and obtained my GCE O/L certificate. I then moved to Bilingual Grammar School where I spent two years in High School and obtained my GCE A/L certificate to enable me to enter university.

My experiences of schooling at the primary, secondary and high school were extremely varied. In the primary school, which was coeducational, lower primary teachers were mostly females and upper primary were males. Female teachers at the upper primary level taught subjects like history, English, and Domestic Science. The classroom environment at the primary level was often tense and sometimes embarrassing, as male teachers would use a whip to strike both male and female students when a right answer was not provided. Teachers picked on mature girls who did not raise their hands to answer questions and often became intolerant to students who were academically weak especially

girls who had attained puberty. The classroom environment was sometimes hostile especially when boys jeered at a girl for giving a dumb response. Furthermore, teaching was very autocratic and authoritarian. Students sat in rows and the teacher stood in front of the class, transmitting all the facts through lectures. When the teacher paused and asked a question, students were expected to raise their hands in a competitive manner and the lucky student was selected to respond. This kind of classroom environment not only intimidated girls but also eroded their self-esteem and confidence.

Moving from primary to secondary and high school was even more challenging. Students at the secondary and high school came from different socio-economic backgrounds and ethnic groups. Although it was not evident from which geographical location a student came, it was easy to identify students who came from elite homes. This was reflected in the expensive dresses they could afford, and they not only bought the required texts but had other textbooks that their parents thought would help them at school. They had more pocket money to spend and had school supplies in excess. I came from a somewhat middle class family. My father who had a standard six certificate and an accounting diploma worked as a junior accountant, while my mother had elementary education and was a stay-at-home mom. As a growing female in my household, I had to help my mother in cooking, cleaning of the house, doing laundry, cultivating food crops for home consumption and sometimes selling with her in the local market. Some of my classmates and friends had mothers who were nurses, teachers, and secretaries as their role models, but this was not the case with me. The challenge to go through secondary school and the competition among students was very intense. However, when I realised that I was not coming from an elite family, I was determined to work hard and become better educated than my parents.

The gendered divisions at the secondary and high school were obvious. Although we had female teachers at the secondary and high school level, they mostly taught subjects like biology, history, civics, English, French and literature. There were times in high school when a female literature teacher would only teach prose and not drama like Shakespeare or poetry, which the students often considered more sophisticated than prose. Also, male teachers often taught most of the chemistry, math, further mathematics, and physics. The classroom environment was competitive and the male teachers were very impatient with females. The teachers sometimes attributed female students' weakness or lack of interest in the science subjects to spending more time taking care of their hair, bodies, dressing and dating. A teacher would go as far as making a comment such as, "Now I am talking and you are looking at me with a blank face, when I saw you last night in a beer parlour." When such comments were made, boys would jeer.

It is worth noting that most communities were small and everybody knew everybody. The responsibility of raising a child did not lie solely in the hands of the parents but also included the teachers, neighbours, and friends of the family, aunts, grandmothers and community leaders. Although derogatory comments made by teachers were problematic because they eroded the self-confidence of females, the teachers' intentions were to shock the students and get them to work harder in their subject. Generally, the teachers had very high expectations for both the girls and boys who aspired to higher education and pursued science related subjects.

It is against this background of my personal experiences that I journeyed to BGS to talk to form four female students about their schooling experiences and decisions about subject choices. I wanted the students to share with me their experiences of formal education

and their post-secondary and career aspirations, while identifying some of the possibilities and obstacles they envisioned. My participation in the study and my position(s) as a former student of the school, teacher, mother, native of Fako Division and an educated woman committed to social justice and gender equity, shaped my worldview in conducting this study. My personal experiences provide me with the background to engage in a methodological and political enterprise to enable the female students to begin probing the array of forces that might impede their future aspirations. Consequently, my background shaped my choice of research site and influenced my research approach with female form four students of BGS.

In this chapter, I provide a description of the procedure of data collection, the methods, participants, research site and some of the challenges that I encountered as a researcher. Because I, the researcher, engaged in understanding the processes which lie behind female from four students' decisions about subject choices and writing of the final account, I was compelled to situate my positionality to enable readers to understand how my own experiences informed my understanding of the choice making process of these girls. The next chapter presents the views and voices of the girls that I studied.

CHAPTER FIVE

FINDINGS

This chapter presents the views and voices of female form four students as they speak about their decisions on the school subjects they will take in form five. During conversation with the students, it became evident that their decisions are complex and contradictory. They described explicit **aspirations** in seizing opportunities that will better their and their families' future lives. However, these aspirations are tempered by characteristics of the **student/personal self** such as their actual academic performance, their interests in and liking of school subjects. Their **school** plays an important part in influencing their subject decisions, including the gendered and classed nature of their school experiences, the curriculum, the teachers and teaching that are part of their life in school. Finally, their **families and communities** are central influences on the careers they pursue and the subject decisions they make.

The research findings are presented under each of these four large categories of influence on the girls' decisions about subjects. In each of the categories, themes are highlighted but not separated in order to show how the themes are interrelated and overlapping.

Occupational Aspirations

The way the girls see their future beyond form four is a central influence on what subjects they choose to take at this pivotal decision point in their schooling.
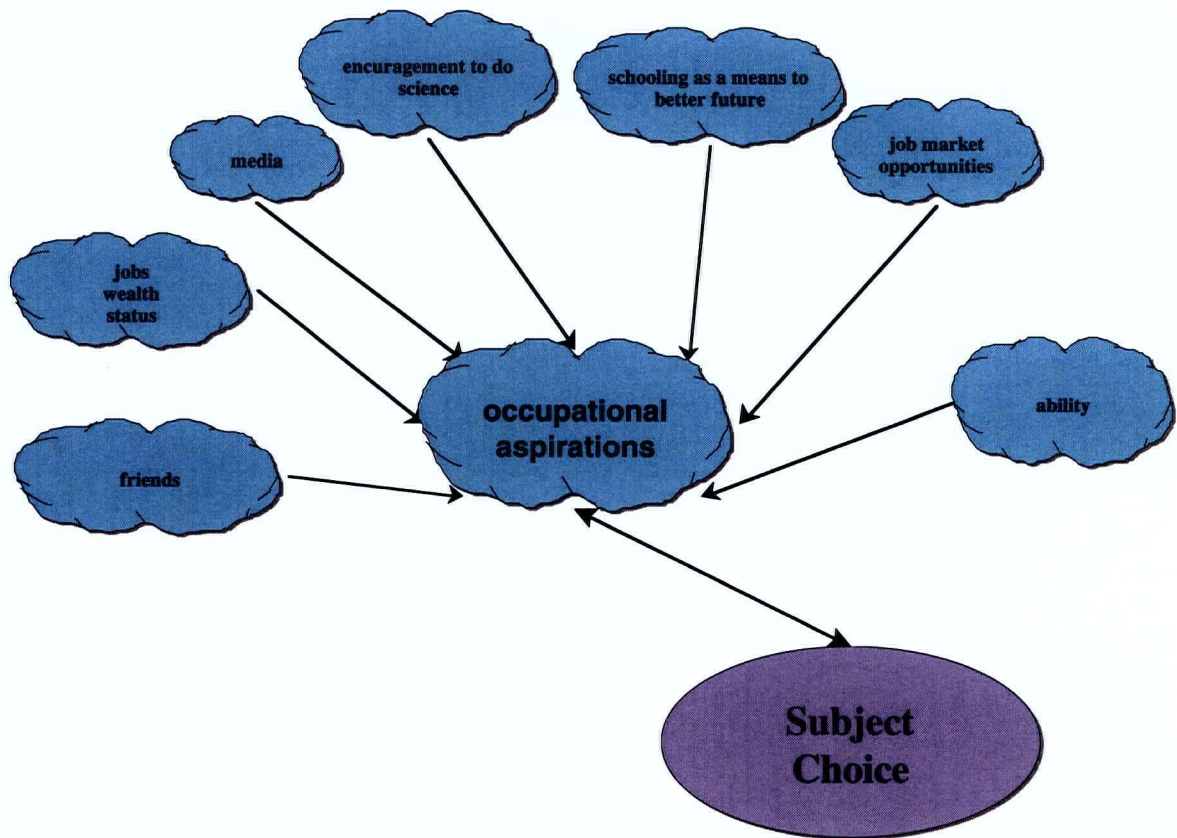
Figure 6. Implications of occupational aspirations on subject choice

This section on aspirations describes how the girls see their futures and their views are both idealistic and shaded by real limitations they perceive. Figure 6 maps the influences on their views of who they might become and what career they will pursue in the future. The findings in this section are consistent with Gray and Herr's (1998) position that educational opportunity is regarded as a means of achieving income, status, prestige, security, recognition

and social mobility. The participants' choices were consistent with what they saw as relevant in their lives. Although socio-economic status of the parents from the elite and middle class backgrounds appeared to relate to the occupational aspirations of the girls, this was not the case for those from a working class background. The socio-economic and socio-cultural environment made the students' aspirations and choices complex. Zey (1992) identifies these sociological challenges as some of the limits of human rationality. Some of the findings are consistent with those reported by Donaldson and Dixon (1995) and Kithyo and Petrina (2002) in that both these studies reveal that gender influences the choice of subjects or programs that girls aspire to because they consider their future expected roles in selecting their programs. Finally, social capital in the form of relationships among people and the information channels that these relations provide played in a major role in the girls' decision-making.

Eli describes the way she and her **friends** discuss their possible futures together and suggest to each other the possible careers they should pursue. However, their advice for each other takes into account their perceptions of others' views and expectations as well.

Eli: We usually have discussions with friends in my class. We just sit and discuss about the future. Each person takes a turn and one person can say, "I would like to become a teacher or pilot." So when you say you would like to become a teacher, some of your friends might say the teaching profession does not suit you. It is not good. You should instead do this so that you might become a doctor because that suits you, or become a police officer.

EG: Uh-huh.

Eli: Yes. We usually do that discussion. I always tell them that I would like to become either an engineer or a pilot. But they give me the encouragement that to become a pilot I need to be courageous, and it is very difficult for a woman to become a pilot because it is scarce in Cameroon.

EG: Why is it scarce?

Eli: Because women are not courageous. They have a weak heart. They are weak hearted.

EG: They are weak hearted! Who says women are weak hearted?

Eli: Oh, that is what everyone around thinks.

EG: Every one is who?

Eli: I mean the teachers, my parents and my brothers and sister.

(conversation with Eli, W, first interview)

Mak describes the direct encouragement she receives from her friends about subjects to take.

Also my classmates, some tell me not to do physics and the other [sciences] because the subjects are very difficult. Some tell me to keep it up because if I drop the science subjects, I will find it very difficult to start the other subjects that I have not been taking. Something like literature, I have a friend who takes literature and [she] constantly tells me to drop physics and take literature.

(conversation with Mak, M, first interview)

Len describes her experiences with the discussion among friends and suggests that the girls build their aspirations with awareness of the **status, prestige and economic rewards** that come with certain careers.

Len: We talk about what we want to do in the future and the kind of advantages that go with what you want to do. Let me say for example ... I said that if I become a doctor

then I am going to earn good money more than other careers. Others say that accounting will give more money than being a doctor.

(conversation with Len, M, first interview)

Lyn aspires to be an accountant and her goal is influenced by friends, her liking of and **ability** to do mathematics, status and **opportunities in the job market**.

Lyn: I chose accountancy because they have jobs in the society very fast. They have money. They are very responsible people and they are very respected in the society…. In short, I like the job. So I, to become an accountant, you need math. You have to know your math and that is why I really like math just because I want to be an accountant in the future.   (Conversation with Lyn E, first interview)

Lyn's goal of becoming an accountant is influenced by a friend's mother who acts as her **role model.** She explains:

Lyn: I had one of my friends that her mother was an accountant. She used to take us to the bank to show us her office. She used to tell us that to be an accountant is very nice and before you want to be an accountant, you have to do economics, math and one other subject. So, she said that she would like us to become accountants. So from that time, I just like the job.   (conversation with Lyn, E, first interview)

Lyn: For me the thing that made me want to become an accountant is because my friend's mother, she is very kind and has money. The way she takes care of her children it makes me to like the job and she is always talking about it that it is nice that we should become accountant and that if you want to become an accountant you need economics, math, geography and that we have to work very hard in math. That is what really made me want to become an accountant and in short, they pay a lot in that

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field, the salary there is very high and I want to be rich in future.

Mai notes with confidence her aspiration to become a doctor and the encouragement she finds in the schools and society for women to build a career in the **sciences**.

Mai: I came about this idea since I always loved the title *Dr.* [she emphasizes] and they have always been encouraging us to do the sciences, and fortunately I found myself doing the subjects that are related to what I want to do in future. You know when you plan to do something, when you build a foundation, it will not be difficult to build a house. I had sat down and decided on what I will do in future before I started … focusing on the subjects that I am presently taking.

Mai and Lyn aspire to careers that gain them status, a job, and money. Their comments imply that subject choice is in part instrumental in getting the girls through high school and into the careers they want. The girls recognize that schooling especially secondary schooling is vital to providing the basis for self-reliance, future life-long training through which they will acquire the skills necessary to enter the world of work. For example:

EG: Can you tell me what schooling is like for you?

Len: It is just, to have knowledge in order to have a good job and to, in short to have some little knowledge of small things so that you can have, have a very good career in future. Career can be kind of a good one that can try and support yourself.

EG: When you talk about small things, I don't quite understand. Can you explain what you mean?

Len: Like let me say if you have to be a doctor, you have to come and study in school,

before you become a doctor.

EG: Uh-huh.

Len: So you have to come to school and it will take many stages before you can become a

doctor.   (conversation with Len, M, first interview)

The girls recognize the **importance of schooling** and value careers, recognition and status for themselves. Lyn presents an image of herself actively pursuing schooling because it will secure her future. She does not take the schooling process for granted as evident in her characterization of schooling as a journey of struggle, one that the student has to "fight" for their future. Lyn's comment expresses the view of most participants in the study who acknowledge that schooling has the potential of providing a chance for upward mobility.

Lyn: As for me, schooling is very important because I believe that *I am fighting* for my

own future. My father and my mother… they have had theirs, so it is left for me to

fight for my own future, whether to grow up and have something doing in life.

EG: Okay.

Lyn: And to help my junior brothers.

EG: When you say schooling is important, what do you mean by important?

Lyn: I have to be serious in school. My parents did not send me to school to just come and

play. I mean you are *fighting for your future*. (italics added)

(conversation with Lyn, E, second interview)

Eli sees schooling as a springboard to acquiring the academic qualification that will in turn provide her with **recognition** as an educated female in Cameroon. She considers education as a status marker when she says,

For me schooling has been good because it is good for someone to be educated now because in Cameroon if you are not educated you are not recognised as someone in the public.   (conversation with Eli, W, first interview)

Kris notes the message she receives in her **family** about her future, that she must be able to do and aspire to more than her mother did. But, she suggests this may not be the message that all girls receive in their families.

Kris: As a form four student, I need to work hard to become a better person in the future because parents now have the belief that girl children do not go to school, their own work is to get married. But my parents do not have that [belief] and my parents have the opportunity to send me to school so, I need to work hard to encourage them to send me further.

EG: You are saying parents have the idea that girl children should get married? Where did you get that idea?

Kris: Because that is what happened to my mother. My mother's father did not want my mother to go further in education, so, he sent her to marry. So I want to know more, as my mother would have done. I want to go far in bookwork.

(conversation with Kris, M, first interview)

Kris also accepts that an educated person is a more **valued person** in the society, a view influenced by her parents.

Because at home my father… did management, because to head a company … has to do with management, so he used to encourage me to do one or two things. Also, my father likes to talk. My father likes that his children should be more educated than he is. And my mother used to advise us that we should work hard in our education, in our schoolwork. We should not follow friends. We should not follow friends because

there are some students in this BGS, one day like that their school money is about 2000frs. But I am from a poor family so I need to work hard to become a better person tomorrow. Then my father's friend used to abuse his wife [because] she is an illiterate. He would say that when friends were going to school, she stayed in the village and did not attend school. I didn't like that. I want that I should be educated so that my husband also, or if I marry, my husband shouldn't abuse me like that. I should be a better person. Welcome my husband's friends, people or educated people.

<div align="right">(conversation with Kris, W, first interview)</div>

Kris alludes to the encouragement she has at home and draws our attention to the fact that her father "likes to talk" and wants his children to be "more educated than him." She mentions that some of her classmates can afford 2,000CFA francs (approximately $5. CND) as their daily allowance for lunch at school but because she comes from a poor family, it is only through schooling that she can make herself a better person in future. Lastly, she believes that staying in school and obtaining a good job will assure that she will not be beaten in the future by her husband!

Isa discloses a different influence on her career aspirations. She wants to be a journalist and this is an idea she got through exposure to them in the **media.** Being a journalist would also be something different in her family.

Isa: It is because when I hear other journalists speaking on TV and radio, I enjoy them. So, I also would like to become a journalist. Also, in my family no one is a journalist so I will like to be one.   (conversation with Isa, M, first interview)

Kris expresses a view tempered by some realities of economics and the constraints students may experience when their family is not wealthy.

Kris: It depends whether the student's interest is in that profession and on the other hand it depends on your family. If you are from a poor family, to become a medical doctor is not easy. You need to spend seven years in school in Yaounde, and you need to... your father needs to bribe, since Cameroon is full of corruption. Some parents cannot afford that huge sum of money so you need to get into a profession that would not be costly to your parents.   (conversation with Kris, M, first interview)

The findings are consistent with the decision theory espoused by Gray and Herr (1998), which affirms that the choices people make relate to the way they see themselves. People either see themselves as being good, bad, competent, and incompetent and their opportunities as being attractive, negative, limited and unlimited. The girls' resolve to become an engineer, paediatrician, and accountant was a consequence of their perceived academic ability and available opportunities to achieve their goal. Eli, Len, Lyn, Mak, Mai and Kris who reflect the views of the girls from different socio-economic backgrounds can be said to make rational decisions in their choices influenced by their aspirations for the future because they considered their ability for success, measured certain professions as important in their adult life and optimistically used the motivation they got from their families and friends.

While a prevalent view in Cameroon is that the sciences are not for girls, some get the message that studying the sciences is desirable and others recognize that enrolling in the sciences and higher education is a "fight for the future." The working class girl, Kris, strives to become what her mother could not be. Walker (1983) describes this experience for girls as being in search for your mother's garden. Eli another working class girl declares that she wants to be recognized as an exulted woman pilot, an occupation that to this date has only a

lone female. The school and the society becomes a sort of wrestling arena for self-determination, upward mobility and an avenue that promises a break out of the working class. The girls are aspiring to become the "new African woman," which Bloch, Beoku-Betts and Tabachnick (1998) define as "those expressing new ideas of personhood, has become very politically and economically aware of her environment, and has learned how to manipulate both socio-cultural and economic structures for maximum personal gain" (p. x).

However, while students from the middle and elite class backgrounds were quite certain that they would continue to university and pursue their prospective careers, and realize their ideals, students from the working class families were less certain. Whereas elite and middle class girls benefited from the social and cultural capital that their family possessed that enabled them to secure better information about requirements for post-secondary education and the labour market, those from the working class background relied on information from friends, neighbours and the scattered ideas that their parents and relatives had on the subject. Clark, Gelatt and Levine (1965) postulate that for there to be "rational" choice making, the individual must have adequate information and good judgement to scrutinize, systematize and synthesize the information. Fri is from a poorer family and she describes her decision based on her families' economic resources to go to a professional school for skills that are immediately marketable.

Fri: By next year if I have my Ordinary levels I will go to a professional school to do nursing because I don't think my parents will be able to send me to school.

EG: What are some of things that made you decide to do nursing?

Fri: The way my aunt is trying to do things. That is why I want to go and do nursing.

EG: I don't understand, when you say the way your aunt is doing things, can you explain?

Fri: My aunt says that if I continue to go to school she would not have the money. My father is also saying the same thing. I said that if I have my Ordinary level, I would just go and do nursing. Maybe around that time my elder brother would be working. Maybe he would be doing something that will enable him to help me go further. But if I go to high school the way my father is saying, I think he will not continue to support me.

EG: What is he saying?

Fri: [For example] When you come back from school, let me say that they have asked us to bring some money....

EG: Okay.

Fri: If they ask us to bring some money to school for an excursion for example, I will tell my father that, 'Daddy I need 1,000 francs for excursion.' He would say that you don't know that you are big enough to go and look for your own money. I will try to be angry but I would just take it [like] normal because that is what he is used to saying. I would just take it but he will continue talking. My mother always calls me behind and says I should not be worried, that I should put my heart in whatever I want to do and she would ask me to take my Bible and be reading.

(conversation with Fri, W, first interview)

Fri's story of the support and lack of support she receives in her family illustrates the aspirations encouraged by her mother (to the extent she can), and the economic and social power wielded by her father. When Fri finished describing this example to me, her emotion was evident in her bursting into tears. We talked about her experience, and I told her about

my life and how I went to teacher training college, started working, got married and could still go to school.

While Fri is from a working class background and decides to get into a professional school after her GCE Ordinary Level, Len believes that she will have the financial support to achieve her goal of becoming a paediatrician even in a worse case scenario, such as if her father were to die. While Len believes family friends will be there to help her financially if she needs them, other girls such as Fri see themselves as obligated to help their siblings in the event of their parents not being able to do so. Len explains the resources she believes she can access through an **extended family of friends**.

Len: It is going to be possible because there are facilities like money. Even if my parents die tomorrow, I can still have the facilities to study tomorrow.

EG: I don't quite get it when you talk about facilities and your parent's money?

Len: Take the example of money because you can't do anything without money so, if my parents die tomorrow and there is no money, I can still achieve my goal because my parents have friends who can help.   (conversation with Len, M, first interview)

The future career aspirations that form four girls describe are both idealistic and instrumental, first in that schooling is instrumental to securing a job and money, and secondly that the job and money are instrumental to status, recognition and prestige that they yearn to attain. Some articulate their aspirations in terms of simply having a better education than their parents and being a better person in society. Their aspirations are encouraged and discouraged by their readings of the broader society, for example, media, the job market, and the valuing of science. Their aspirations are also both encouraged and discouraged by their

friends, their families and extended families of friends, their parents' advice, their family wealth, and their obligations to contribute to the financial wellbeing of their families. For form four girls, their aspirations are the futures they imagine for themselves and their school subject choices are made with these aspirations in mind. Their aspirations are however tempered with a form of reality check that comes with awareness of the student-personal self that is examined in the next section of this chapter.

The Student-Personal Self

Although the girls in this study come from different socio-economic backgrounds, they all made choices based on their vision for the future goals and the economic reward and prestige that it would yield. The nature of their choices revealed that they were able to risk taking certain subjects only to the extent that it was profitable and will facilitate their success in future. In the course of making these choices their aspirations are tempered by their individual characteristics. The girls insist that they would only take courses that they have been succeeding in and were confident to obtain at the GCE Ordinary Level. This is consistent with the findings of Kithyo and Petrina (2002) who examined the factors that influence students career choice programs in two technical colleges in Kenya and concluded that the grade a student obtains plays a major role in their choice of program in high school. Similarly, Donaldson and Dixon (1999) assert, "student perceptions of their ability to achieve often affect their decisions about what courses to take or what career path to develop" (p. 41). The diagram below depicts aspects of the student-personal self that impacts subject choice decisions.
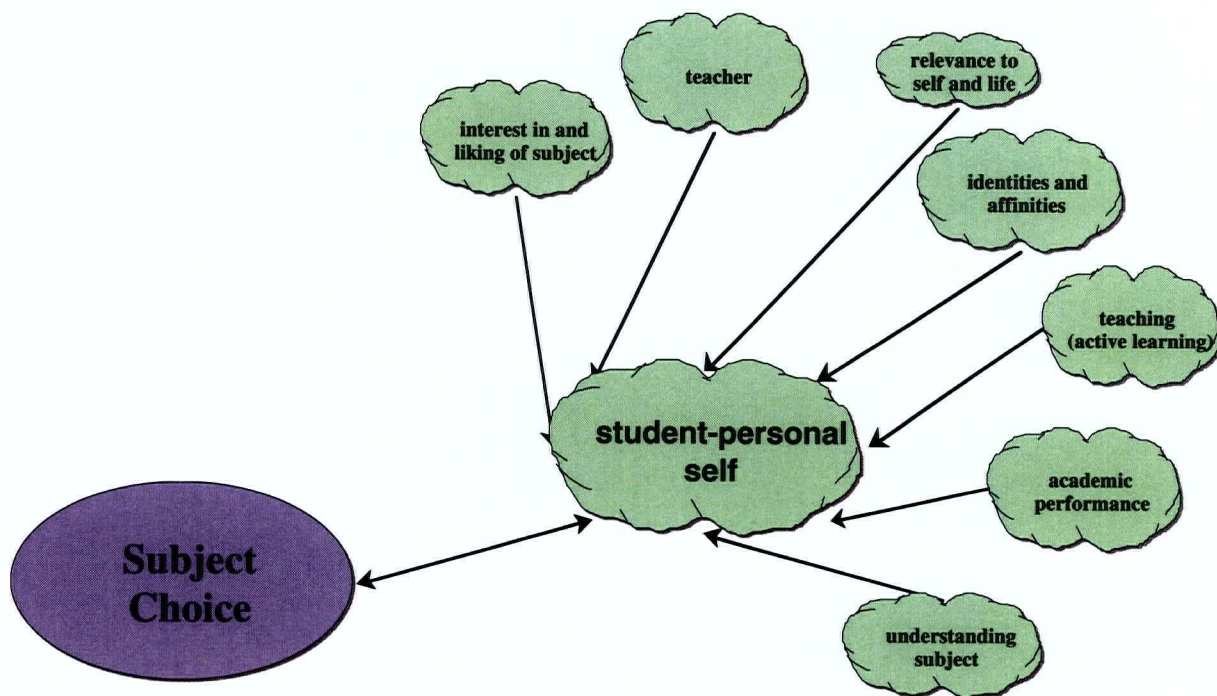
Figure 7. Components of the student-personal self

The future career aspirations of the girls described in the first section of the chapter are tempered by the realities of their schooling experience, specifically their academic performance and whether they believed they understood the subjects and were passing in them. A second dimension of the student-personal self is the girl's interest in and liking of the various subjects. The girls liking and interest in subjects in addition to their academic performance contribute to a sense of identity for the girls as either an arts student or a science student. At least they begin to see themselves as being inclined toward one or the other. The girls are using the opportunities available in their context to develop identities and affinities that are liberating. In Stamp's (1995) words they are active agents.

Liking of certain school subjects for the girls also relates to their future **occupational aspirations** that were explored in the previous section of this Chapter. For example, Eli and Len state:

Len: Because I want to be a doctor so, I would love to do the sciences in order to become a doctor in future, a child specialist.   (conversation with Len, M, first interview)

Eli: I like the subjects because firstly [because of] what I will like to become in future will be based on the sciences. And I also like, I have a good set of teachers in that branch of studies. I have good teachers who can teach me biology, chemistry, physics and the other subjects very well, that I understand very well.

(conversation with Eli, W, first interview)

There were a number of reasons for liking a subject. Some girls just **liked** a subject; others liked it because they understood it. Some were interested in a subject depending on the way **the teacher** taught it or because they **saw a relationship between the subject matter and their personal lives**. For Rej, interest was more important than need for the subject:

Sometimes you even know that you may not need a subject tomorrow but the teacher makes it interesting that you want to take it. So, if it is interesting, if I like it and I pass in it then I want to take it.   (conversation with Rej, M, second interview)

Most students posited that they became interested in certain subjects and selected those subjects because of the way the teacher taught them. Mak contended that before she selects a subject, "I consider the method of teaching, the way the teacher teaches the subject." This point is also supported by Mai, who explains:

Mai: A subject is interesting to me depending on the way the teacher teaches. I never loved chemistry.

EG: Hmm.

Mai: When I came, we had a good teacher in form three. I really understood it well.

Even in form one and form two. When it is a good teacher, and he teaches

well, I would take the subject.

(conversation with Mai, W, first interview)

Lyn further emphasises that whether or not she likes a **teacher** strongly influences her
subject decisions. Lyn says:

For me it depends on the teacher that is teaching the subject. If the teacher is not

teaching well, I do not think that I will like the subject. Even [if] you love the subject

and hate the teacher, you will not be interested in learning the subject because of the

hatred you have for the teacher. I am trying not to dislike any teacher because I know

that if I hate a teacher, I would also hate the subject. A subject like biology, I really

enjoy the subject because it helps us to know things about ourselves, things that are

happening around us.   (conversation with Lyn, E, first interview)

Vera tells of a teacher who sparked her interest in studying literature.

Vera: I had a teacher who taught us literature. He met us one day with my friends, we were

walking home after school. He started discussing with us. He told us the story of a

beautiful princess who had her birthday party. This princess invited everybody in her

neighbourhood, but forgot to invite one lady who was a witch. When the witch

realised it, she took a pin and pinned it on the ground and said when the princess will

be celebrating her 14th birthday, everybody at the occasion would fall asleep.

Moreover, only a prince passing through that area would be able to the wake up the

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princess and her guests. As the witch said, when the princess was celebrating her 14th birthday, everybody fell asleep. After a long time, a prince was passing through that area and since everybody was sleeping, the area was so quiet. The prince did not know that people were there. He decided to go into the castle to see how the palace looked because it was calm. When he got there, he met everybody sleeping. When he got to where the princess was, he kissed her hand and to his surprise, everybody got up. The prince decided there and then to marry the princess. They got married and lived happily ever after.

EG: Uh-huh.

Vera: So, I asked the teacher where he heard, read or got that story from. He said, "When you do literature you will know many of such stories." Literature he said is very interesting. You learn how people live, what happened to people in different places at different times. When you do literature, you know the life of people so I said to myself that I must do literature.   (conversation with Vera, M, first interview)

The girls spoke of the **identities and affinities** they were developing with mathematics, physics, and chemistry, seeing themselves as problem-solvers and "science" students; or with history, literature, and economics and seeing themselves as *arts* students. Rej identifies herself as an arts student who does not understand the steps in solving mathematical problems. She elaborates:

I have to like the subject. If a subject is interesting and I like it then I want to take it. Like literature, I like story telling not math [where] the teacher just comes and solves problems and you only see the answer but you do not understand what she is saying.

                    (conversation with Rej, M, first interview)

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The findings suggest that the girls prioritized their preferences in order to maximize their utility and arrive at an objective decision. Nurmi (1998) asserts that the decision maker must at least have an idea of the resulting outcome of the choice due to her interaction with the environment and the opportunities available. Like Rej, Fri attempts to make the most of her options by prioritizing her preferences when she takes a number of things into consideration before selecting a subject. One of which is whether she understands the subject. Unlike Rej, Fri is not interested in reading novels and history texts. She dislikes these subjects, doesn't understand them and does not choose to take them. She does like science.

> I make sure that I understand the subject. Since I was in form one, I have always understood chemistry. I never had any problems even in form two and three. I still understand chemistry but history I do not understand. I have tried to read history a lot but I still don't understand. Just like literature, I am not used to reading novels because it just is not interesting.   (conversation with Fri, W, first interview)

For some of the girls it was important that they find **relevance** in the school subject, that they describe as a connection between the subject and their everyday lives. For some it is important to take the subjects that deal with practical things or things around them. Eli highlights this view when she talks about the reasons she likes biology:

Eli: I like biology because it studies living things. I would like to know about myself in the future, how plants grow, and all the other living things like birds, animals. In fact, all the living things, how they grow, how do they feed, why they feed but they can not move and some can move like the higher animals – human beings.

EG: Uh-huh.

Eli: And the other things. For economics, I will also like to know economics. Even though

        it is a social science, it mostly deals with human behaviour for example, how people

        live in various societies and the population in the country.

EG: When you say economics is a social science, what do you mean?

Eli: It is a social science because it studies... it deals with human behaviour. Economics

        does not deal with plants; it deals with human beings.

                                                        (conversation with Eli, W, first interview)

Eli's view was echoed by Ndi and Vera who also like economics because it deals with

everyday concerns:

Ndi: To me, economics deals with the day-to-day activities. So when they are teaching

        economics, you find that the things that they teach happens in our homes, in the

        market, and around you.   (Conversation with Ndi, E, first interview)

Vera: Economics, I just like the subject because it deals with social life for example when

        you want to go to the market while the demand for certain goods could be high at a

        certain time you understand why all those things happen.

                                                        (Conversation with Vera, M, first interview)

        Furthermore, the **curriculum content** posed a difficulty for the girls in this study

because it was based more on school subjects inherited from the colonial past than rooted in

current African realities. The curriculum was distant from the lives of the students and posed

difficulties for their understanding of the subject matter as Jane states:

Jane: I don't like literature because in the literature, this literature textbook, literature

        novels.... most of the time they use words that I don't understand. They use those, the

English that was used in the olden days, and I don't understand that or what it means.

<div align="right">(conversation with Jane, M, first interview)</div>

Jane's reference to the use of old English that she doesn't understand indicates that she would prefer the curriculum to be situated in the everyday lives of the students or their immediate surroundings.

Similarly, Kris finds difficulty with the foods and nutrition course, stating that she doesn't like to cook and elaborates her dislike:

Kris: This cooking that they are using books to learn things, that if you want to cook something you will use a book! I don't know that type of cooking. I want … that if you want to do something, something that is in your head like when they want to cook here they would measure this quantity of this and put, this quantity of this and I don't like this, such a thing.   (conversation with Kris, M, second interview)

While Kris finds the textbook learning of foods and nutrition irrelevant to her interests, Mai is able to make her own connections between her school subjects and life at home.

Mai: Schooling helps me in that; it helps me in the house. Like the thing we bake at home. When they talk about mixture in chemistry, and when I go to the house I always realize that when I mix everything in the water, the water will no longer have its colour. For example, I may mix saccharine with sugar and salt and I will see that the water changes into a milky solution. So, this at least gives me a little sense about chemistry. …Even economics helps me in many ways to manage at times in the house…and many other subjects. Even maths, at times to calculate, so, they help me in many ways.   (conversation with Mai, W, second interview)

Ellen suggests she enjoys chemistry and mathematics because she can be more actively learning in them, solving problems according to her own methods.

Ellen: I enjoy chemistry, math and further math.

EG: What makes you enjoy these subjects?

Ellen: I like calculations mostly.

EG: Uh-huh.

Ellen: Because when I read sometimes, I don't usually understand. But to calculate is very easy for me. And, I think, things like history, I don't like history because they give too many notes to copy and read. And history is talking about past things, which don't stick in my head. Subjects like chemistry and physics deal mostly with calculation. You can easily calculate and there are various methods that you can use. You can use your own method and you have your marks during the test. That is why I like most of the sciences.   (conversation with Ellen, E, second interview)

Ellen critiques the pedagogy of history for not providing students with the opportunity to be part of the knowledge production. She uses the example of chemistry and physics to demonstrate her personal power and autonomy in being able to use her own methods to arrive at the answer to a problem. In addition, the girls critiqued the curriculum for not being grounded in their social reality, consequently making it meaningless and difficult for them to grasp the content. They were expressing the need for positioning indigenous knowledge(s) in the curriculum, craved examples that resonated with their geography and that was meaningful; and appealed to their intellectual, emotional and psychological development as Cameroonian adults. Obviously, the girls are searching for knowledge that would develop skills readily needed in the Cameroonian world of work.

While critiquing the curriculum content, the participants also recognized pedagogy that appealed to their ways of knowing. The girls also spoke of teachers who used active ways of teaching that helped them to understand and remember.

Ndi: When a teacher teaches and uses many actions and makes the students act… if it is a subject like literature…make the students to act the story. Like in form two, the teacher who taught us literature made us act the *Six Short Stories*. Everybody was given a role and until this date, I can still remember the story.

(conversation with Ndi, E, first interview)

While Ndi suggests that having students act a play is one way a teacher can convey her subject to the students, Emily maintains that teachers should relate the subject to everyday experiences. Emily explains her preferred style of teaching through the example of her literature teacher.

Emily: My literature mistress. When she is teaching she does not base only what she is teaching, she goes to talk about our society. She picks examples from what is going on in our society and makes it better for us to understand. Like in the *Crown of Thorns*, an African prose that talks of how a white man came and deceived the Africans to sell their god, a god that had always protected them. The District Officer was involved in the selling of this god. So she brought this example to illustrate that things like that do happen in our society as some District Officers who are in the rural areas do things of this nature to the villagers. She said some district officers do that because they know that the people are not educated and they would not understand whatever thing they are doing. Thus, they always take the law into their hands.

(conversation with Emily, W, first interview)

The girls' interest in and liking of certain school subjects are closely linked as they have described in many of the above quotes, to their academic performance, whether they understand a subject and are passing in it. Many students claim that their subject choices are directed by their **academic performance**. This is not surprising in the Cameroonian education system where the curriculum is examination driven and students pay a great deal of attention to their grades on class tests and examinations. Rej states:

Rej: I should be able to pass in the subject. I will not like to choose a subject that tomorrow I will have difficulties in. Like when you are writing the Ordinary level you have to focus your mind in the ones that you know you are going to pass.

(conversation with Rej, M, first interview)

A passing grade in a school subject is important to the students because it impacts their average performance on all subjects in a term. It also determines if they pass or fail. The cumulative average of terms one, two, and three determines whether a student is promoted to the next form. Hence, the students' perceive their academic performance in a subject as an indication that they understand that subject and that they are doing well at school. Grades are an incentive for the students to pursue that academic subject. On the other hand, the students consider a below average mark as indication that they are weak in that subject and are therefore discouraged from continuing with it in high school.

Because academic performance in a subject determines whether you pass or fail and subsequently determines if you can take that subject at the GCE Ordinary level, students carefully consider their performance in making their decisions. According to Lyn,

My performance in the subject. My performance in the first term, second term and third term. The subjects that I score very high, I consider them to be the subjects that I take in form five, at the GCE O/L.   (conversation with Lyn, E, first interview)

Rej for example, cited above as finding mathematics difficult had decided that she needed a certain level of mathematics that she did not have. She saw herself as an arts student and believed that she could not make a passing grade in mathematics. Through the teacher's teaching style, her level of comprehension and her grades in math, Rej developed her perception about her competency in math, which in this case is negative. This validates Gray and Herr's (1998) position that individuals make decisions based on the way they view themselves and the context helps in their formulation of this construction. Consequently, in the event that a decision maker is uncertain about the probabilistic outcomes, they do not engage in such a choice. Accordingly, Rej says,

Rej: Because at times I use to believe that even in the GCE Ordinary level I still doubt if I could pass math. I find the subject difficult because some topics like quadratic equations I do not understand. When the teacher enters the class, she is just teaching and going, teaching and going. When you tell her that you have not understood, she tells you to find out from friends.

EG: Uh-huh.

Rej: She would just come in and teach. Students will complain that they do not understand the way she is illustrating the various steps of solving the problem. I will only see that she has arrived at an answer and I will not even know how she got to the answer.

                                          (conversation with Rej, M, first interview)

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Although the girls did not acknowledge that their perceptions about subjects being difficult could be stereotypes learned from their peers through conversations among different cohorts of students, I recall my own experience as a student at BGS. Recalling my secondary school years, I remember hearing from students who were two or three classes ahead of me say that math and physics are incomprehensible and very difficult. Such beliefs get reproduced from one class of students to another. Like Rej, Vera also expresses the same concern when she talks about her dislike for mathematics and her belief that she cannot understand it.

Vera: I dislike math because I have difficulties understanding math. I don't know why but I just believe... I just have that belief in me, that I will never understand it. When I was in form one we were solving for x and y. I came to form two we were still solving, form three the same thing, form four the same thing. I don't know when they will find the answer for x and y.   (Conversation with Vera, M, first interview)

While Rej and Vera talk about their dislike for mathematics due to their lack of understanding of the subject, Vera is critical of the mathematics content for being too abstract.

On the contrary, Fri is a science student who is convinced she does not have the ability to read for a long time. Since doing literature demands that she read a lot, she will not select literature as a subject to take in form five. According to Fri:

I don't have the ability to read for a long time. In literature, you have to read and make summaries and I don't have the ability to do that. But in chemistry and math I will only be solving once I have the chemical equation or the formula.

EG: Are you saying that as a chemistry student you don't have to read a lot?

Fri: I read but not much.

EG: Not much, what do you mean?

Fri: I read but not for a long time. In literature, in form three I was not reading literature. I don't know it and I have always failed in literature but in physics, chemistry and math, if it is math, I just take problems and solve. As for chemistry I just read the definition of let say a standard solution and I know how to carry out the experiment. In literature I have to read, make summaries, answer questions under the topic, and I don't enjoy that.   (conversation with Fri, W, first interview)

Lyn and Shirley indicate that their decisions about subject choices begin the first day they enter secondary school. When they get to form four and confront the decision to choose subjects to take at the GCE and subsequently in the high school and university, they take a close look at their academic performance from form one to form four. Similarly, Mai states:

Since form one or in primary school, I used to enjoy math because I am not very powerful in language. I always dislike English, literature, history but I prefer math. I always score 20/20 in math and earned a lot of prizes for doing well.

(conversation with Mai, W, first interview)

The importance of academic performance was emphasized by Lyn who saw a clear link between doing well at each stage of schooling:

In the GCE O/L, if I have good grades, I will go to high school. If I have good grades in the high school, I will go to the university. I am sure that if I have good grades they would admit me into the university or into any accountancy school.

(conversation with Lyn, E, first interview)

Like Lyn, Shirley says:

> It is due to my results, my results that I see. At the end of the term when I see the way I am performing in the subjects then I will begin to classify myself under the various types of things that I am going to do. Therefore, when I see myself performing more in particular subjects in a good number of years, I know that if I keep it up, I am going to do better. (conversation with Shirley, W, first interview)

In this section we see a commonality in the views expressed by students from the different socio-economic backgrounds on how their interest in and liking of specific school subjects leads them to continuing to enrol in those subjects. Their interest and liking of school subjects relates closely to the teachers who teach the subjects and whether the teacher makes the subject interesting. Interesting subjects for a number of the girls were those that related to their home life, political life, or other current issues in their daily life. Interesting subjects were also those in which teachers helped them to see the importance of the subject and used active and experiential learning. Interest and liking are closely tied to the girls' academic performance. That is, subjects that they understood and passed were those they usually liked. The girls' interest in and liking of certain school subjects together contributed their emerging inclinations toward either arts or science subjects. Although the girls expressed their points of view about liking a subject in the light of their self, there were extraneous factors beyond the student-personal self like the school and home environments that brought about significant variations in their choices.

Influences Within the School Context

The previous section on the student-personal self highlighted individual attributes as they influence the girls' decision-making. The literature review section lay bare the

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underlying assumption that individuals will make rational decisions if they are informed by the probable outcomes of that choice. Nonetheless, the social context interferes with the rationality of individuals as seen in the role capital (social, cultural and financial) plays and the social construction of gender as it plays out in different geographical locations.

In this section and the subsequent one, the family, school and community are recognized as reproducing gender divisions and oppressions through the expectations that parents, teachers and friends have for girls and boys. The gendered experiences of the girls in this study are shaped by school organization and pedagogy, social institutions and cultural as well as traditional socio-economic systems. The dominant socio-cultural expectations on girls to be docile and engage in domestic work while boys are expected to be adventurous and to engage in the highly competitive science and technology fields of public life. This socialization contributes in school to a pedagogy of difference that does not help to create an inclusive context for girls' participation in classrooms. The diagram below illustrates the influences on girls in the school context and the ways in which a pedagogy of difference is experienced.
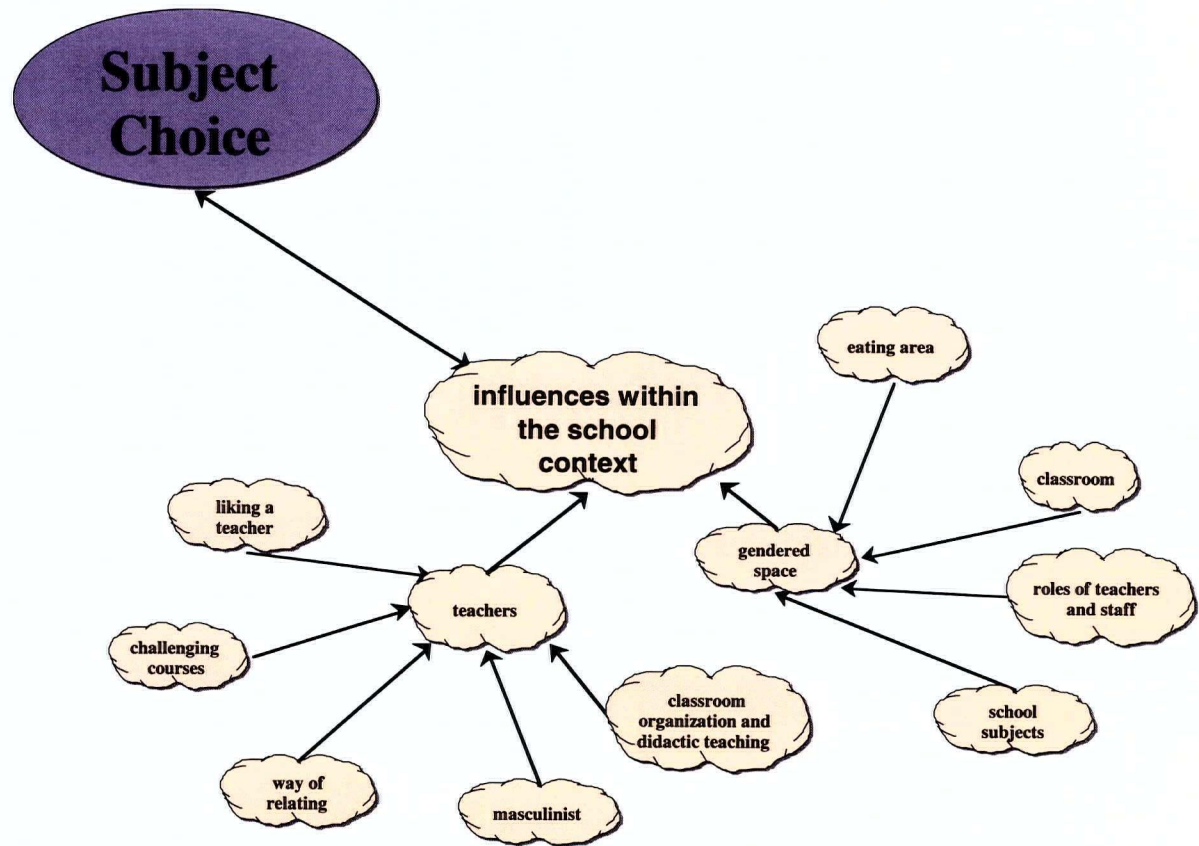
Figure 8. Influences within the school context

Consistent with the findings of other studies (Brock & Cammish, 1997; Cammish & Brock, 1994; Diallo, 1994; FEMSA, 1998; Nfou, 1997; Torto, 1998;) these results indicate that the school is a gendered space where teacher and peers perceive girls and boys to be physiologically different and as a result must assume distinct societal roles. This results in pedagogy of difference that designates different experiences for girls and boys through the negotiation of spaces within the school, the girls' relationship with the teachers in the classroom, and the continuous systematic bias exemplified in the dominating attitude of males over females.

During my research period and during my interaction with students at BGS, I realized that they were friendly with each other. Friendship was not always based on ethnic, gender or class lines as some girls had boys as their friends and some students from wealthy backgrounds made friends with students whose parents were not wealthy. However, during break period it became apparent that the school was a **gendered space** for the students. In my field notes, I wrote:

> The girls are sitting in small groups two, three, four and maybe five. They are munching their lunch snack. As they eat, they talk and giggle from time to time. As I moved close to the window and told them to enjoy their meal, a few of them laughed and hid their mouths. Susan asked me to join in their lunch. I took a puffball and gave Lyn some money to go and get more of the balls. I noticed that most of the boys were out of the classroom. Groups of boys were standing to the north of the classroom and when I heard an outburst of laughter, I excused myself and joined the other group. When I joined them and announced my presence with a greeting, they answered but there was a sudden chill. One of the boys demanded that his friend continue the conversation and they went on talking about a film that they had watched before. I was struck that Mak was with the boys and contributed in the discussion of the movie. I then asked one of the boys if they had had their lunch and he said of course but if I wanted to buy them more lunch, they will welcome it. The others laughed. I told them that I was somewhat surprised because I did not see them eating like the girls who ate in the classroom. One said that girls do not like eating in the dining area because they're ashamed. When I demanded to know why, another boy said because they ate too much and another said because the girls do not want the boys to see how they

were eating. Then I turned to Mak and asked her if that was the case and she told me that they did not find the dining area comfortable. (Field notes March 12, 2001)

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It was a bright day and I could see the mountain very clearly. As I gazed at it, Mai uttered "Good day madam, " and I turned and greeted her too. The sound of the bell went and when I asked her what that bell was for, she told me it was long break (recess) time. I invited Mai for some snacks at the dining area and we immediately left. It was an open area adjacent to the assembly hall. It had a few benches. Women were sitting in a long line with their pans and pots in front of them. There was a rush. No student wanted to line up. Some were pushing, others were yelling "Mama rice and beans for 100frs." I could not help but give Mai the money to get us something to eat. After shoving past a few students, she made her way in front of the woman selling fish rolls. She later joined me smiling with fish rolls in a plastic bag. I asked that we move to the sitting slabs that were across from the corridors in front of the administrative building. I then realised that the dining area has not changed much from the time I was there. (Field notes, April 8, 2001)

Through observing and interacting with the students during break time, I recognized that the girls did not move as freely as the boys in all spaces of the school. While the majority of the boys appeared comfortable in all the spaces, the girls found their own separate areas. The grouping of students based on sex was also evident during classes. Students had the liberty to choose their seats and change them during different subjects depending on how many students stayed in class for that subject. However in some cases, the class had to be reorganized according to the teacher's desire to facilitate a particular class exercise. Usually,

the boys sat at the back of the classroom where they could make comments that would likely be ignored by the teachers. This served to give them power and some control in the class. A few girls also cherished the back seats. Generally, relations among form four students were cordial as they helped one another to copy notes, do their assignments, and loaned books and other reading material. The girls also noted that this cordial relationship with their classmates and students in higher classes eased their studies although it was not evident that it played a major role in their subject choice decisions.

The **positions that the staff and teachers occupy** in BGS are stereotypically gendered and do not model equitable roles for girls. For example, the roles of administrative staff during 2001-2002 show that the secretaries were both women, the majority of the masters of discipline were men, and two-thirds (2) of the head administrators were men.

Table 7. Distribution of Female and Male Administrative Staff at BGS, 2001-02

Position	Females	Males	Total
Principal	0	1	1
Vice-Principal	1	1	2
Masters of discipline	2	6	8
Librarian	0	1	1
Secretary	2	0	2
Messenger	0	2	2
Total	**5**	**11**	**16**

As shown in Table 8, subjects that were taught exclusively by men were German, Spanish, Latin, philosophy, physics, and chemistry. Subjects taught totally or almost totally by women were home economics and biology. The gendered distribution of teachers into gender-identified subjects at BGS leave few role models for girls of women in non-traditional and science subjects that feminist rhetoric encourages them to pursue.

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Table 8. Distribution of Female and Male Teachers by Subject at BGS, 2001-02

Subject	Female	Male	Total
English and Literatures	17	5	22
French	8	5	13
German	0	2	2
Spanish	0	2	2
Latin	0	2	2
Mathematics	3	12	15
History and Geography	10	7	17
Philosophy	0	4	4
Physics	0	9	9
Chemistry	0	4	4
Natural sciences	1	3	4
Biology	3	1	4
Economics	1	4	5
Home economics	6	0	6
Physical education	1	5	6
Counselling	2	2	4
TOTAL	**52**	**67**	**119**

The girls provided some insight into ways that they experienced certain **subjects as being gendered**. Fri's decision not to take Further Math at the GCE is because of the way the teacher teaches that subject.

Fri: I don't want to do Further Math because when the teacher is teaching and you ask a question he would just say that *is how science is* and I don't have a teacher who will teach me at home. If I take it, I will have to do all the work on my own and when the teacher says that I am just discouraged.   (conversation with Fri, W, first interview)

Teachers like parents have a significant role to play in providing students with information and encouragement. But Fri is discouraged from taking Further Mathematics by the dismissive comment of this male mathematics teacher when he says that "is how science is." Science teachers in Cameroon tend to be mainly males. When the teacher rebuffed Fri by saying that is how science is, he implicitly suggests that scientific knowledge is for a select few and in his case probably male. Fri's experience with the further math teacher echoes the

views held by most of the girls on how pedagogy of difference operates to their disadvantage. Noteworthy, while the girls from a working class background like Fri end up dropping the subject when they encounter such a teacher, those from the middle and elite class background who possessed financial capital hired teachers to teach them at home.

As mentioned in the previous chapter, a FEMSA club operated in the school. The FEMSA classes were dominated by the boys and were run totally by men teachers. Therefore, through its title and presence it signalled to the girls that they could rightfully claim a space in science and mathematics courses. Some of the girls I interviewed had direct experience with FEMSA classes. Mai explains:

Mai: The club is to help those who want to do science in future and encourages girls, especially girls to do the sciences.

EG: Uh-huh.

Mai: Because girls don't love to do science. So, the club mostly encourages girls than boys. In the club, they really make us to try and have interest in the sciences and many other things.

EG: How?

Mai: Like when we usually have the classes, we, even when you ask a question, no matter how childish it may be but they are very open and you would be pleased before going back the next time. In short, they really want to work in line with the students. At times they even bring us questions that even in our normal classes we don't have. They used to bring us questions from the previous year of the General Certificate Examination (GCE). They can bring the questions and then we answer, we try to answer them. In short, they teach us before hand, or cover some topics before we

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meet them in class. At times they teach us they same thing that we are doing in class.

<div align="right">(conversation with Mai, W, second interview)</div>

Eli also understood the purposes of FEMSA:

> FEMSA stands for Female Education for Mathematics and Sciences in Africa. The club mostly encourage girls in Cameroon to do sciences. They have discovered that in Cameroon today most girls are doing the arts while the majority of the boys are doing the sciences. That is why the club was created in BGS. To encourage some of the girls who find difficulties in the sciences so that they can make them, they can make science subjects easy for them. We study only the science subjects there and we have to pay for the classes. For a whole year, we pay 1,500francs and every year we have an end of year party. During this party, we have FEMSA branches from different destinations come and celebrate in BGS.

<div align="right">(conversation with Eli, W, first interview)</div>

The FEMSA club was an **effective strategy in raising a feminist consciousness** of the female students about the absence of women in science and technology and the need for them to participate. However, students had to pay for the classes which meant that those students whose parents could not afford the extra cost could not benefit from the project. Overall, FEMSA was a good initiative and helped a number of students to enrol in science subjects.

Teachers and teaching defined much of the girls experience in school. I was interested in probing with the girls whether they experienced different teaching approaches used by women and men teachers. When I asked whether the good teachers they have met in their lives were females or males, all of them said they were both. But, Ellen, Kris and Mak's

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comment in the subsequent sections reveal that the female and male teachers taught differently. Their girls seemed to have enjoyed the women teachers' ways of teaching. Ellen comments:

Ellen: Let me say our math and chemistry teachers. Our math teacher, you know is a woman, her character is quite different; she is polite to the students and likes giving marks. She does not like students to fail in her test. She is good, the way she teaches and the method she uses.

EG: What is her method?

Ellen: For example under sets she would take, she would take a lot of time just to make us understand what she is doing. If you ask her a question, she would respond even if you were not on the right track. My experience with my chemistry teacher is not too bad.

EG: What do you mean by not too bad?

Ellen: When I say not too bad, I mean that, you know he is a man.

EG: Okay.

Ellen: He is good with students and knows how to teach.

EG: When you say he knows how to teach, what exactly do you mean?

Ellen: He can use a first method and if the students don't understand, he uses another method to do the same problem. Most of the time, he knows if we have understood what he is talking about.   (conversation with Ellen, E, first interview)

Kris remarks:

Kris: Our physics teacher in form two, he was a man. He explained the notes, his notes, he explained them well [so] they are simple to understand. Then he used to teach us

practical so that we should know them. In a case where you want to forget he would just remind you. He used to show us actions when teaching and that way when you can't remember something, you just think of how he was standing in front of the class and how he was doing a certain action. It makes you...you cannot forget certain words.   (conversation with Kris, M, first interview)

Mak: I consider the method of teaching, the way the teacher teaches, also the teacher's behaviour because if the teacher is harsh to the students, I would not like to do his subject. When you are calm, for example the biology teacher, so many students want to take biology because **she** is calm, teaches very well. I like biology because of the way the teacher teaches. She makes the class interesting, even the chemistry and math teacher make their classes interesting.   (conversation with Mak, M, first interview)

Ellen, Kris and Mak's comparison of their teachers' teaching styles reveal that female teachers and some male teachers are generally seen as soft spoken, patient, friendly, and provided students with the kind of support they needed in the classroom and in school.

Ellen provides a clear articulation of what she considers to be the appealing side of female teachers when she says, "Our math teacher, you know she is a woman, her character is quite different." What I think Ellen is alluding to is that female teachers are seen to be more accessible than their male counterparts. During my research at BGS, I found both female and male teachers who were stern especially during classes but it was more common for female teachers to take the time and ask students about their well being. It was common for a female teacher to smile with the students, embrace a student, give a pat on the back or share a joke with them out of class. Sometimes the female teacher will ask a student with a particular need to meet her in the staff room. On the other hand, the male teachers maintained

a formal relationship with students most of the time. The girls in this study preferred teachers who were friendlier and concerned about their welfare. Kris emphasizes this point:

> The students should not be afraid of the teacher to the point that when you see a teacher you go frightened. It is not good because in a case when a student has a problem in class, she will be afraid to meet the teacher. However, when you are close friend with the teacher, you feel free as if you are even talking to your classmates or to your friend. Teachers and students should be close but the student should not take the teacher for granted because that is what some students do.

> (conversation with Kris, M, second interview)

Kris' description of the female teacher above contrasts to the teaching described by Fri that can be characterized as masculinist teaching. I use the term masculinist teaching/teacher to refer to what Smith, McCoy, and Bourne (1995) describe as "a behaviour that explicitly reproduces women's inferiority" (p. 6). It is an ideological apparatus that has been institutionalized in the home, community and school and takes the form of systemic discrimination that is often taken for granted. It may be very subtle but designed to show girls as incompetent in traditionally masculine preserves of mathematics and technical studies, thereby reinforcing pedagogy of difference. Such teaching only helps to alienate girls from the sciences.

Fri articulates a situation where the teacher rebuffed her request for an explanation of the subject to divulge girls' incompetence in physics. Fri in this instance also points to the teacher's intimidation response when she says,

Fri: When the teacher enters the class we first of all greet the teacher. The teacher would just say, "Forget about your greeting. Is that the only thing that you can do!" and would just go straight to the lesson. Like this physics teacher he would just go ahead

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with the lesson and when we interrupt him to find out what he is doing he just says, "If you don't want to understand leave it that is how science do."

EG: When this teacher says that is how science do what does he mean?

Fri: We don't know, I don't know what he is trying to say but I think he is trying to say that science don't... if you are not interested in doing science you should leave. You must look for the things yourself before coming to class.

<div align="right">(conversation with Fri, W, first interview)</div>

The following event provides an illustration of how the teacher's reaction during a laboratory class assumes Eli's incompetence and indirectly attributes it to gender; a kind of socialization into female uselessness. Eli feels demeaned by her teacher who would not let her open one of the chemicals that they were to use during a lab class because according to the teacher the mere fact that she was a woman meant that she would have spilt the chemical. Earlier I quoted Eli when she told me that "everyone" thinks women are weak hearted. I asked:

EG: Do they tell you in the face or you just know or think that that is the way they feel about you or rather about women?

Eli: Is not like they come and tell you but, like one day we had this biology class and we had to carry out an experiment. There was acid or a chemical in the bottle that I can't remember the name. The teacher assigned students to do different tasks and I had to open the bottle. When he turned around and saw that I was going to open the bottle he stopped me and said that I should leave it because these women, they can make like that and the bottle will fall. I could have done it but he didn't let me. I felt bad and was disgraced.   (conversation with Eli, W, first interview)

Eli believes that she was capable of opening the bottle but the teacher failed to give her the opportunity to do so. She learns to inhibit the natural exuberance of meeting learning adventures. This made her feel excluded in the classroom and such exclusion sometimes results in the student developing a dislike for the teacher, the subject, and possibly herself.

One challenge is the powerlessness the students feel because of the **classroom organization and pedagogy**. Teaching and learning in BGS, like in most secondary schools in Cameroon, is a matter of the teacher transmitting knowledge to the students. As a former student and teacher in Cameroon, my classroom observations compelled me to reflect on my own past experiences as a learner and teacher. I realised that my teaching was done in the same fashion that I was taught, most times using the lecture method and expecting the students to note important points during the lecture. At the end of the lecture, the teacher commonly dictates notes for the students to copy. Note taking is an important part of teaching because students rely on their notes as primary reference material when they cannot afford the textbook necessary for that subject. The average number of students in each form four class at BGS was 60 students. The students sit quietly in rows and listen to the teacher who stands at the front of the class dispensing information to the students.
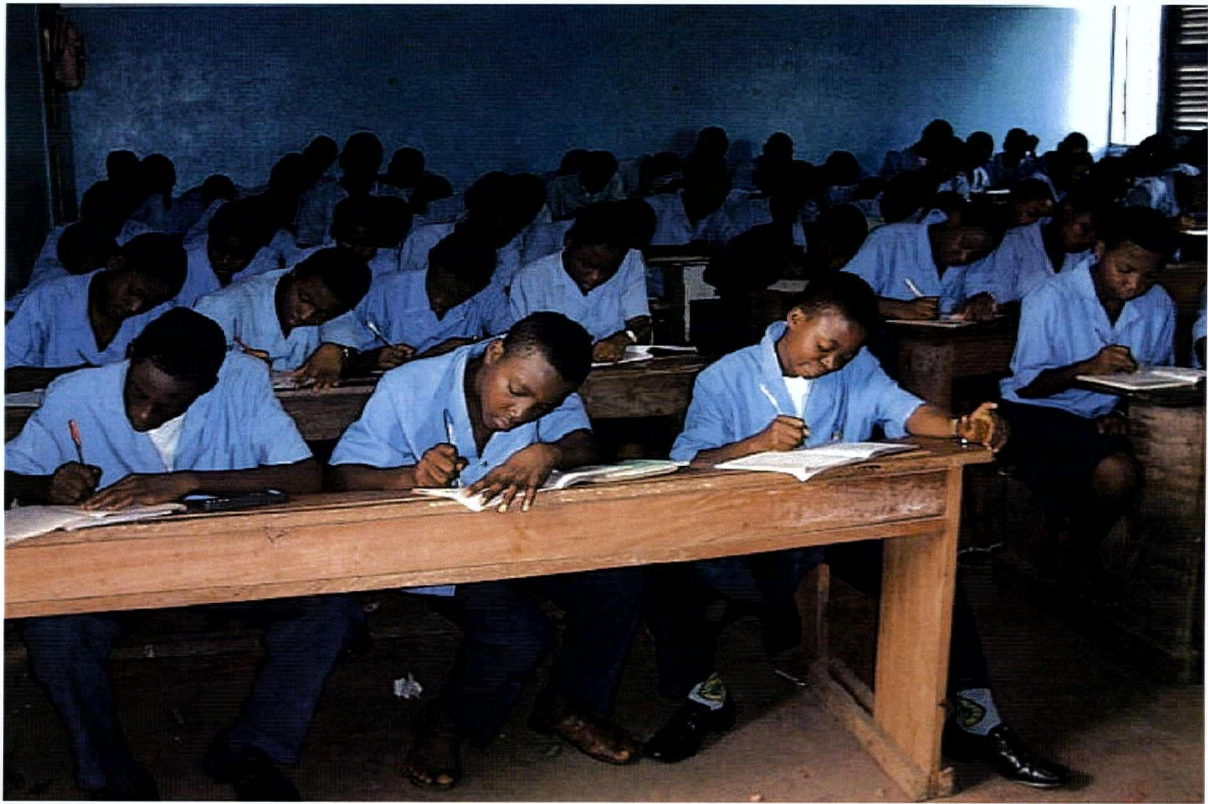
Figure 9: A note taking session

Based on my previous experiences in Cameroon and my present experience as a student in Canada, I could not help but see the students as being less privileged. I also saw that the students were treated as "empty vessels" ready to grasp knowledge from the "all knowing" teacher. Such classroom organisation creates a power differential implying to the students that they are not a part of the knowledge creation happening in the classroom.

I got to form 4C class at 7:55 a.m. just when the students were returning from the assembly hall. Their English teacher was already in class arranging her books on the teacher's desk. When a few students realised that the teacher was in class, there was a stampede. She folded her hands, walked out of the classroom, and stood by the door. A few minutes later, the teacher moved into the classroom and the students all stood

and greeted. She responded and asked them to take their seats. A sudden quiet fell

onto the class and the teacher continued with her lecture while the students quietly

brought out their books from their bags and listened to the instructions of the teacher.

(Summary of field notes, February 24, 2001)

The students' sense of powerlessness is seen in a classroom situation like the one described

above where they feel intimidated by the presence of a teacher. (Hence, students found it

difficult to respond to questions and sometimes they got discouraged simply because they are

not getting the necessary support they need from their teachers as we will see later.)

When I went back to BGS, I found that the class sizes had doubled from the time that

I was a student there. Form four was huge (198 students) and had to be divided into three

sections but this still meant that a teacher teaching English would have to attend to about 90

students during a 55 minute class. As a former teacher in one of the secondary schools in

Cameroon, the issue of class size was a constant challenge. Hence, some teachers were quick

to engage with students and took note of students who participated actively in class as Eli

says, " a teacher takes note of a student when you are active or when you participate very

well in his or her subject."

The students had strong feelings about the teachers they had and whether they

experienced them as encouraging or discouraging students in their subject. The girls found

some teachers unnecessarily harsh, or they found that sometimes the teacher's attitude

toward the students created a tense atmosphere in class and made them withdraw from that

teacher and their subject. Noel talked about a teacher who made her become so tense in class

to the point that she could not even ask for a pencil from a friend:

Noel: My form two chemistry teacher was such that even when you had a problem you can

not ask her anything. She is so, she was pregnant but she was so harsh that when she

enters the class and we greet her and sit down, one could not turn around to ask a

friend for pencil.   (conversation with Noel, M, first interview)

Vera describes a physics teacher she has and the way he makes her feel:

Vera: Some teachers may be come from their house angry, they just come and they are

shouting even when something is so small. Like this physics teacher we had, any little

thing you do which is wrong. He tells you how you are badly brought up, and those

sorts of things.... I felt very bad. I regret coming to school. That is, if I knew that this

is how the teacher would behave, I would have gone to another school. Because if the

teachers cannot encourage me; they discourage me. When someone is insulting me I

know that you don't like me. You can shout at me but not insult me.

(conversation with Vera, M, first interview)

Noel and Vera' analysis of their experience with two different teachers resound the views

held by most participants on the ways that teachers intimidate and obliterate student courage

and enthusiasm.

Isa recognized as Eli did above that not all students get the same attention from

teachers, a situation Isa considered to be unfair.

Isa: Some teachers neglect other students. They don't care if you understand something or

not but to some students they make sure that they go to their desks everyday or when

they realise that they have problems. They do not take all students to be equal in

class.... The teacher makes some students feel, they select some students and teach

them while neglecting the others.   (conversation with Isa, M, second interview)

Although Isa expressed this concern about teachers neglect, this concern was not expressed by most of the other participants.

Liking a teacher as noted in the previous section of this chapter, was a very important influence on students' subject choices. The active learning strategies and opportunities to do experiments and problem solving as noted in the previous section were important influences on students' liking of subjects. Jane believes that classes need to be lighter and friendlier. Jane says:

> When a teacher comes to class and he starts teaching, if the class is not interesting or is getting boring the teacher should sometimes make fun. When students laugh in class, the class becomes alive and they would like to listen more to the lectures and even copy notes. (conversation with Jane, M, second interview)

Teachers play an active role in controlling the dynamics in the classroom. They can create more active learning situations and lighten the classroom mood. However, one problem the girls described was the frequent absences of teachers from the classroom. Eli described her experience with the problem.

> The aspect of teachers being **absent** in school and then giving us assignments that we should go and copy notes from the other classes. You can go and copy notes and you discover errors from your friends. You will not know how to correct them. Some teachers even say, "Go and copy notes. When I come to class I will explain." But, when you go and copy the notes and they come to class, they would skip the topic and go to the next topic, which makes me find things difficult.
>
> (conversation with Eli, W, first interview)

During my research period at BGS it was not uncommon to see students in classes with no teachers. In such situations, the students were left to study by themselves and many spent their time chatting with one another until a master of discipline came by and called them to order. This encouraged students to loaf around the school campus and some even went home before the end of the school day.

As alluded to earlier in the discussion of classroom organization and difficulties in advanced grades, certain institutional difficulties were evident, for example, large classes, absent teachers, disruptive behaviour. Sometimes teachers are transferred in the middle of a year and students have to build new relations with a new teacher and adapt to new teaching methods. Timetabling of courses also was an issue for some students. For example when food and nutrition classes were timetabled at the same time as mathematics, if students needed Further Mathematics, they could not take foods and nutrition. Similarly students' choices to take certain courses were constrained by timetabling physics and literature at the same time.

The girls also believed that as they progressed in their studies, the courses became more **challenging**.

EG: What makes them difficult? Can we talk about some of the difficulties?

Eli: For example when I was in form one when they give me notes, they give me in a language or used simple words that I could understand. But now in form four at times they would say go and make notes. You go to a textbook and you want to read, may be you come across a line there that you don't understand what it is talking about. So I find it difficult. It is time consuming to try to think what that line is talking about. But when I bring it to school, I ask the teacher or any of my classmates, they will

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bring out ideas and sometimes we arrive at the correct answer.

While Eli finds difficulty in reading and making notes for herself, Len finds that her teachers don't explain themselves very well. She also talks about disturbance in class especially when there was no teacher. Here is Len's perception about her life as a form four student.

Len: It is quite tedious. The subjects are very difficult, the teachers – some don't explain very well. And there is less discipline in class because of noise, rowdiness, students don't do their assignments, and the teachers too they are kind of lenient and the school authorities too, they hardly come to our class, so, we are just there but I try to compose myself in class and I obey everything that we are given to do in class.

In the previous section of this Chapter we heard Fri explain that she would go into nursing because her family did not have adequate financial resources to support her continued schooling. It is in the upper grades that the family's finances become more important for students. When the subjects become more difficult, wealthier families with the financial capital employ tutors or if the parents are educated they assist the students themselves or pay for extra classes after school. For others, their parents especially mothers were the home teachers while the other students who were from less privilege backgrounds relied on their friends and sometimes their siblings.

Focusing on the influence of the school context on girls' subject selection after form four indicates that the school is highly influential. Through observations in the school and conversations with the girls, the school appeared as a gendered space. Girls did not freely occupy all spaces in the school, for example they usually ate apart from the boys in

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classrooms. They tended not to occupy the back of the classroom like the boys did. The role models of women in the school in non-traditional subject areas or positions in education were absent. The subjects and teaching described by the girls was experienced as gendered in a variety of ways. The teachers were again shown to be key figures in the girls' lives, encouraging or discouraging them from participating in subjects, either explicitly or through their teaching practices and way of being with students. At a time when some subjects were becoming more difficult for the girls, they complained of the frequent absence of teachers from class and over-reliance on note taking and lectures. The girls also noted that they could go unnoticed in large classes where teachers do not have time to interact with all students. It was also a stage in schooling where if subjects were difficult for students, the wealthier families could employ tutors or pay for extra classes while the poorer families could not, thus disadvantaging the poorer girls.

Influences Within Families and Communities

Students often refer to situations and beliefs within their families and communities as influencing their educational aspirations and thus the subject choices they make. The family's education, wealth, and status of the parents serve as locus of information, provides resources for the girls, a good place at home to study, materials to aid learning and financial resources to ensure the selection of certain school subjects. The wealth of the family may also mean that they can hire a babysitter to help at home and thus relieve the girl from domestic work, a teacher to teach her at home, and money to pay for extra classes or excursions organised by the school.

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Although masculinism was prevalent in the girls' daily interactions with their families at home and through their interaction with teachers and students at school, the parents from elite and middle class backgrounds held progressive expectations for their girls. On the one hand, while middle class parents encouraged their daughters to aspire to science related areas of specialization and occupations they also reinforced the notion that marriage and motherhood was also important. The following diagram provides an illustration of some of the home influences on decision making about subject choices.
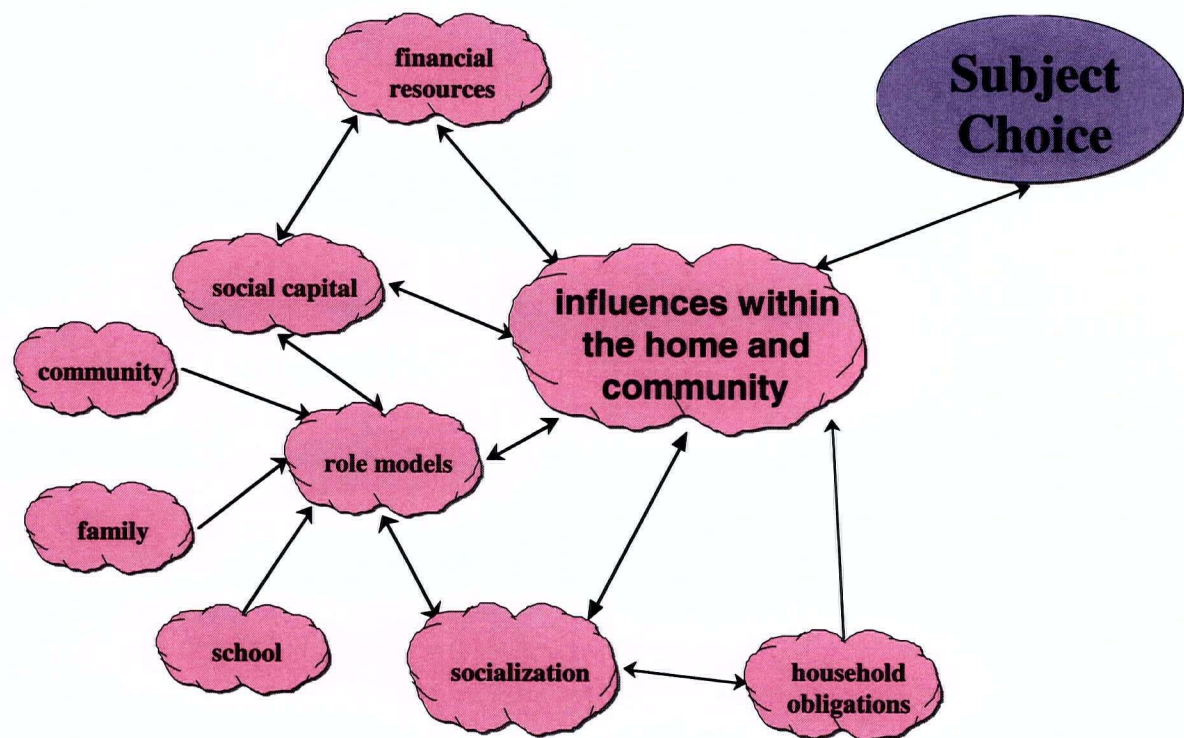

Figure 10. Influences within the home environment

Noël describes how she makes her subject choices and how her limited **financial resources** affect the number of subjects she plans to take at the GCE O/L.

Noël: First, if I find the subject easy to understand. When I find it good. What I consider

also is the cost of education. We are so many of us in the house. I try to take the

number of subjects that my father will be able to pay for when I am suppose to

register for the GCE O/L examination. As the fees have become expensive, I not only

also consider whether he will be able to register me for all those subjects at the

Ordinary Level examination but also if he will be able to send me to the university.

(conversation with Noel, M, first interview)

In contrast to Noel, Len is from an elite family that has the financial resources to support her

in taking science subjects and her aspirations to pursue a science career at university. While

recognizing she has support in her family and community, she hints that it may be a

challenge for her to achieve academically.

Len: I would be able to go to the universities that are at my disposal if only I make good

grades in the GCE. Also taking the fact that my parents are teachers, they have been

helping me to look for syllabuses for the various subjects to enable me know what [I

need to] to prepare for the exams. In short, they are willing to help teach me. I have

one of my father's friends who is willing to teach me math, physics and chemistry if

only I cooperate, and my mother is ready to teach me biology. My parents are ready

to send me to any school that I want to go to if only I pass.

(conversation with Len, E, first interview)

Whereas Len is able to benefit from the financial capital that her parents possess, Fri

plans to move to a professional college after form five because her parents do not have the

money to support her in high school and university. Len's situation contrasts with Fri's who

we have heard from frequently in previous sections. Fri's father is an aged carpenter who is

feeble and a sickly, and her mother does petty-trading. Although Fri is the only child out of seven children to attend school, Fri's parents cannot provide her with the necessary support that she needs to succeed in her school subjects. The financial handicap of Fri's parents causes her to make a number of academic decisions. First, she finds schooling difficult, as she has to trek to school and back without any food. Secondly, her father cannot pay for her physics excursions. This means she will miss a number of classes and therefore she decides not to take physics.

The comparison of Len's and Fri's situations exemplify how parents' income and financial support greatly affect the girls' subject choices, academic performance, and future career aspirations. Len's parents have lots of resources at their disposal and she sees an array of opportunities for herself ahead. Fri's choices are clearly limited because her family does not have the financial capital available to support her.

In families with sufficient financial capital, the girls experience fewer constraints on their subject choices, if they are achieving academically. The families that commanded sufficient financial capital also had more human and social capital to support the girls' aspirations. Clo, Ellen, Lyn and a few others whose parents were university professors, provincial pedagogic inspector for physics and an accountant respectively, had more help at home with their schoolwork. In some cases their parents taught them and encourage them in particular subjects. Noël says:

> There is actually nothing that disturbs me in my studies right now. My mother usually lectures me in certain subjects. After school when I get home she helps me with economics, history and literature. She is encouraging me every time to do those subjects.   (conversation with Noel, M, first interview)

An essential dimension of **social capital** is its potential for providing information in social relations. In addition, information becomes vital in taking action or making decisions. Students who have help at home with certain subjects did well in those subjects and planned to take them at the GCE Ordinary level. Furthermore, this assistance at home took a gendered dimension because the girls mentioned that their mothers were more likely to help them at home than their fathers. This was not surprising because mothers are the primary caregivers for their children. Motherhood is celebrated in this context and can sometimes be overwhelming.

Len who we noted earlier in this chapter had so much trust in the social capital her family had accumulated that she expected support for her aspirations from family and friends even if her parents died. Although there is no guarantee in what Len says, her perspective sheds light on the value that people place on social relationships in Cameroon. In the absence of government welfare services that cater to the needs of the people, there develops a culture of giving in time of need with the expectation that this gesture will be reciprocated when the time comes.

Besides having the advantage of social relationships that can guarantee participation in schooling, thereby enhancing her decision to take certain subjects, Len also perceives herself as unique because she has parents who are teachers in the school that she attends. She states:

> I am a teacher's daughter, and if I fall in trouble in school let me say they come and say that children who have not paid their fees should leave the class and I have paid and they come and say that I have not paid, I will just go and meet my parents in

school and tell them that this is what they have said. They will just go and correct the errors.

My parents introduced me to other teachers, and when I had, let say I could not understand some subjects I will go and meet the teacher and tell him that I had difficulty understanding the lecture and next time he will try and see how he can explain it better in class. Then at times when I misplaced my money for taxi, I will go and tell them that I don't have money for taxi and they will give me.

(conversation with Len, M, first interview)

It was not uncommon that teachers who have children take an interest in following their progress at school. Often this extends to an interest in and assistance to the children of colleagues.

Drawing from my past experience as a teacher in Cameroon and throughout my data collection period at BGS, I was constantly faced with the challenge of examining my own practices as a teacher. It all came back to me fresh when on one Wednesday morning at about 8:30 a.m. the principal was passing by the class four block. The students were rowdy because the math teacher was late for class. A few of them stood by the door and Len was running from the administrative building towards her class when the principal caught a glimpse of her. He immediately called her by her name and said, "you have to stay in class." (Field notes, September 24, 2001)

The principal's remark made me remember how [as a teacher] I used to pay attention to one young girl whose mother was my friend. Then I felt that it was my responsibility to provide her with extra reading material, to encourage her in my subject. Now, during my data collection, I felt a strong sense of guilt. I then realised that as a teacher my responsibility was

to provide each child with the necessary assistance that they needed. The examples discussed above show how social relations constitute a form of social capital that provide a supportive context for some students that can affect their decision to take various school subjects.

Role models found in the school, families and communities also influenced the girls' decisions about subject choices. Earlier we heard from Lyn whose friend's mother was an accountant and Lyn was influenced by her to aspire to become an accountant. We also heard from Isa whose exposure to journalists on television and radio contributed to her wanting to be a journalist. Kris was impressed so much by her elder sister's image that she always wanted to do chemistry.

Kris: I like chemistry and math. I like chemistry just because, since I was small. When I was small, my elder sister used to do chemistry. When I use to see her wearing the overall, the white overall when she is going for practical she would put on the white overall, I just liked the subject.   (conversation with Kris, M, first interview)

Despite role models who encourage girls in science and to continue schooling, the girls struggled with the mixed messages they got about whether to take science subjects or not. Sometimes encouragement not to take sciences had a reverse affect because it raised their consciousness and determination. Kris explains:

Kris: In my family we are only girls. There is no boy. We are challenged to do just any kind of work. In our household, we do what a boy can do. Since we are all girls we even work better than some boys [but] some people think that boys are better than girls. In our house everything, even what people consider as things that a boy can do, we girls try to do it and do it well. For example, we used to split wood and some people think of that work as only meant for boys. We used to go to the farm, clear the

bushes, and education. My father has the courage to send us to school because if he was another man he would have even driven my mother [from the home] because she delivered eight girls. We are all girls, no boys, but my father still has the courage to send us to school so that we should be more educated than he was.

<div align="right">(conversation with Kris, M, first interview)</div>

Mai describes very explicit encouragement she got from teachers and parents when she found a subject difficult.

Mai: My parents encouraged me and teachers encouraged me. I was one time discouraged in math when I had below average mark for my first time. So, I was really discouraged to the point that all our teachers who know me especially the science teachers encouraged me to do it because they knew that I was one of their best students.   (conversation with Mai, W, second interview)

While Mai describes how teachers can be influential in encouraging students in certain subjects, teachers do not usually counsel students to take certain subjects. Mai is an example of an outstanding student that teachers tend to take a greater interest in.

Contrary to Mai's experience, Len notes that girls are also discouraged from studying sciences.

Len: My male cousin was the one who told me that girls are not meant for the sciences because in his family all of them are doing the arts, except him. So he tried to discourage me [by saying] that girls cannot succeed in the sciences. I told him that it doesn't matter and that when you are doing biology there is nothing like girls should go out, so everybody stays in the class and does the same subjects.

<div align="right">(conversation with Len, M, second interview)</div>

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Parents also give direct advice to their children that influence their subject choices.

Len: My mom has encouraged me to take some of the subjects, like biology and chemistry.

My mom encouraged me because I was trying to drop it but she said no, that I should

do them because they are going to help me in the future. She knows that these

subjects are necessary to pursue the career that I aspire to. She told me the subjects I

can take and she helps me.   (conversation with Len, M, second interview)

Advice can also come from neighbours as described by Kris.

First ... the environment that I am living in is mostly university students. I used to get

information from [them] that if you do history today, you might not have a job. But if

you do economics and math, you could do accountancy or management and you will

have a good job. So, I want to do economics and math. I don't want a thing that when

you graduate from the university you will not find a job. Like history when you do

history, the only thing that you can do is either you become a teacher, that's the only

thing. But as an accountant, you can work in a bank, there are so many places that

you can work.   (conversation with Kris, M, first interview)

While families are frequently supportive and encouraging of their girl children's

school and career aspirations, the girls were also often expected to carry a burden of

household chores. The socialization of girls and boys along gender lines is a kind of

informal education that has existed in most African societies (Ngwang Ngumne, 2000). This

informal education continues to be practiced today by most working class families who

cannot afford the luxury of excluding their children, especially the girls from domestic work.

Participating in domestic work is seen as a preparation of the girl child for her future role as a

mother. In some cases, the girls are not only expected to contribute to the smooth functioning

of the household, but also are expected to assist the mother in petty trading to raise finances for the family. Mai frequently talked about her lack of time to study.

Mai: You know when you live with, when you live in the house you need to, at times work. Like I live very far from school and I always walk when going back. So, when I would, we would always close at 3:10/3:30 p.m. By the time I walk back to the house, it is 5:00 p.m. And from there I have to work. And maybe I will finish doing my homework, I have to cook and we use to bake some things to sell. Maybe I will finish at about 8:30/9:00 p.m.

EG: That is, 8:30 p.m. in the evening?

Mai: Yes. And when I go to read now, I will not be able to read well. I will be dizzy, my eyes would be tired and I will not be able to read well. I will just be feeling tired. When I go and sleep to get up in the morning to read again will be difficult. Even when I wake up early, I will not be able to read. So, that is why I mentioned the lack of time.   (conversation with Mai, W, first interview)

Mai's description of what her typical day is like indicates that time constraints do not permit her to study as much as she would love to and consequently her academic work suffers.

Like Mai, Isa's academic performance is dropping as she moves higher in school and needs more time to read which she doesn't have. In an informal conversation with Isa, I learn that she has five siblings three of which are boys. All the boys are attending boarding schools where all they do is go to class, eat, read and sleep. Perhaps the girls stay at home to help the mother with cooking and selling to assist in paying school fees for the brothers. While Isa needs more time to read because schoolwork is becoming challenging, her domestic work robs her of reading time.

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EG: I remember that when we talked the last time you mentioned that you were an average student. Can you explain what you meant by that?

Isa: An average student because I know my average that I always have in class is 10 or 11 out of 20. But in form one I use to have 12, 13 out of 20 but now it is only 11 out of 20.

EG: What is happening?

Isa: I don't know. Because during the first term, I wasn't taking my bookwork serious.

EG: Why were you not taking your work serious?

Isa: Because I had a little time to read.

EG: When you say you had a little time to read, what happened to the rest of the time?

Isa: Working in the house, helping my mother. Now we are only two of us, we are only two girls in our house so we have to do most of the housework.

(conversation with Isa, M, first interview)

While Mai is from a working class background and Isa from middle class, both experience the double burden of contributing at home to domestic work and having to excel at school. Len is a middle class student whose parents are able to pay for childcare. Len is just beginning to learn how to take care of herself and do her laundry. The following comment reflects Len's privileges.

Len: And we were partially brought up to be lazy at first because they brought in babysitters until I was in form three. I could hardly even wash my clothes. It is now that my parents are trying to make sure that we do things for ourselves.

(conversation with Len, M, first interview)

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However, Len also experiences the dual message as a girl student. She is expected to excel at school and also fulfill obligations in the household expected of females. She says:

Len: As a girl I am expected to always be in the kitchen with my mother. If you are caught in the parlour watching TV they will scold at you. And we are expected to able to cook and look after the other kids in the house. As the first [born] I am giving some kind of hard responsibility of taking care of the younger ones. When my parents are out of the house, I have to make sure that they don't fight and cause disaster. I am also given the opportunity to go any school I want because they count on me as an example to the [other] children.   (conversation with Len, M, first interview)

In this section I focused on the influences of families and communities on the girls' decisions about subjects to take in form five. It is in the context of families and communities that differences in financial and social capital make a difference in girls' subject choices. All girls receive conflicting messages from family members about subjects to take and careers to follow. Families are in a period of transition when their expectations for their girl children are changing. However, all the girls experienced the dual expectations that they ought to do well in school and contribute to the domestic work of their homes and families. Thus it is striking that among the girls in this study there was little privilege evident in the way that boys are privileged in devoting themselves full time to studies or having certain advantages because they are girls. Role models that girls could find in their families and communities are influential but few.

CHAPTER SIX

SUMMARY, DISCUSSION AND CONCLUSIONS

This study examined how female form four students in Cameroon make subject choices that direct them into specializations in form five in the arts, sciences or both. The inquiry was informed by choice making theories such as status attainment models, decision theory approaches, African feminist perspectives on gender and feminist theories of gender and schooling. The purposes were to investigate 1) How female form four students of different socio-economic backgrounds construct their educational experiences, achievements, aspirations; 2) How these experiences and achievements shape their subject choices; and 3) What are the girls' constructions of how their aspirations and experiences are responded to and negotiated within the context of the school.

The study, which was undertaken in the South West Province of Cameroon, gathered data on 20 girls from different socio-economic backgrounds as they made their subject choices in the last two terms of form four and during their first term of form five. Data collection strategies included participant observation, interviews and a focus group discussion. These students were in the process of deciding which subject they would take in form five and at the GCE O/L examination, which marks the formal end of secondary schooling. This decision point marks an important new beginning in the lives of these Cameroonian students, as it lays down the educational foundation for specialization in post-secondary education and occupational aspirations. Interviews were audio taped and transcribed. The transcripts were used to identify themes, clusters of and patterns among the themes.

Summary and Discussion of Findings

Of the 20 girls who participated in this study, 7 had selected high school specializations in the sciences, 7 in the arts, and 6 in arts and science. Among the participants, 8 were from middle class backgrounds, 7 were from working class, and 5 from elite backgrounds. Despite the differences in their socio-economic backgrounds and selected subject specializations, all the girls shared some similarities and had differences in their perceptions of their school experiences, occupational aspirations, and subject choice decisions. Figure 11 illustrates the complexity of decision-making about subjects. It attempts to capture the interrelated and interconnected ways in which the school and home environments temper the aspirations of the students and their perceived capabilities as individuals.
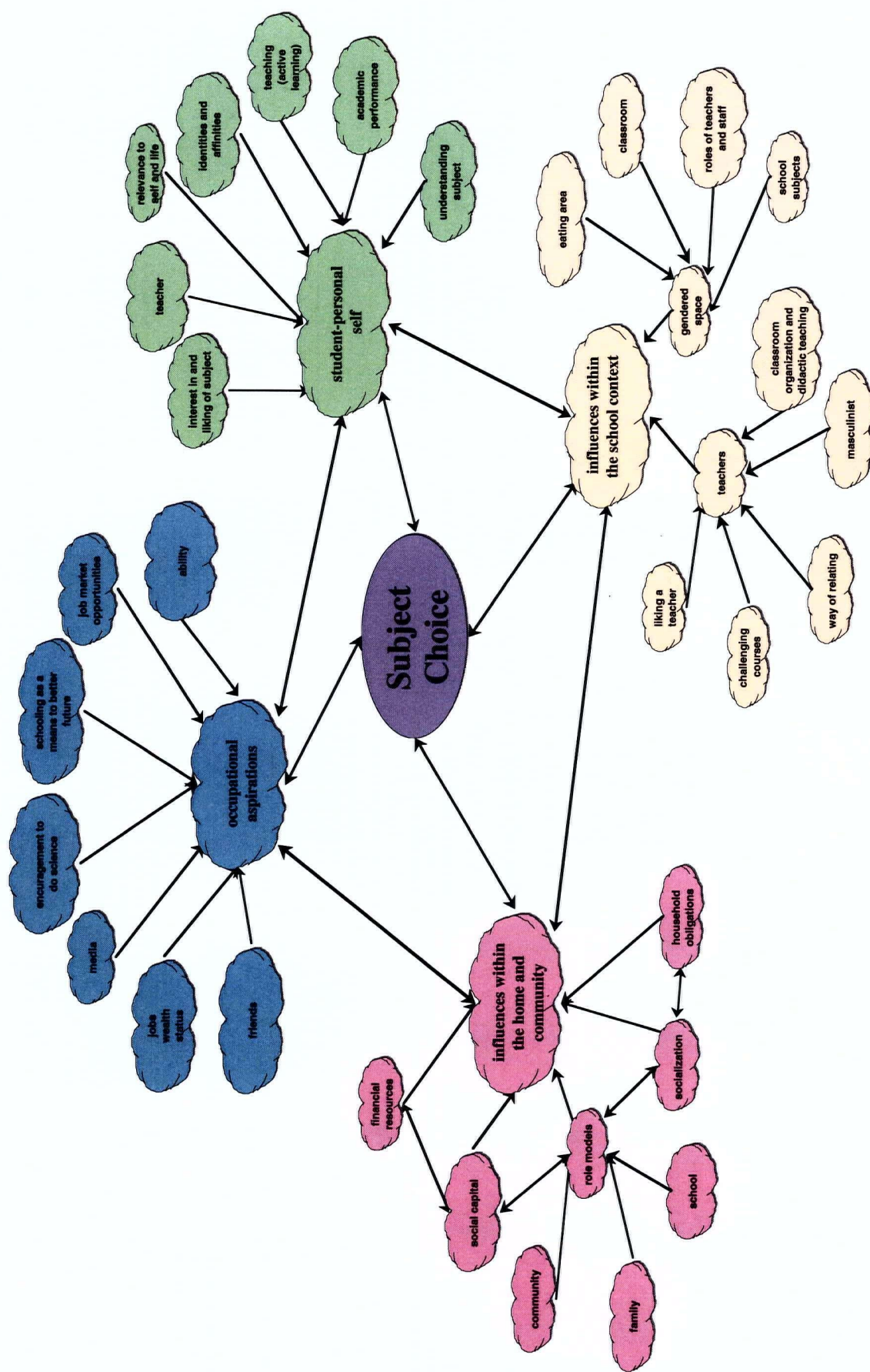
Figure 11. Influences on girls' subject choice decisions

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The girls perceived form four as challenging and sometimes characterized it as difficult. Their difficulties included the teachers, the teaching, excessive note taking, and certain timetabling practices that made it impossible to take certain subjects. Both science and arts students considered the curriculum content abstract. Although the girls saw schooling as challenging, they remarked that schooling beyond secondary level had enormous benefits in making them better citizens in their society. Consequently, the girls acted rationally by making subject choices in view of their future aspirations, some of which are non-traditional for women in Cameroon. Among the choices girls aspired to become pilots, engineers, nutritionists, doctors, journalists, lawyers to name a few. Though the girls occupational aspirations evident in the subject choices that they make are progressive, the familial roles they envisaged contradict the economically independent positions. While the girls saw educational achievement as a precursor to social independence, marriage and family life remains central in their aspirations. On the one hand, they believed in asserting their independence through education, on the other hand, their desire to attain personal as well as cultural status through marriage contradicts their assertive nature.

Even though form four was the decision point for the girls in this study in the sense that they had to choose their subjects, for some of the girls their choice making process began in elementary school when they started developing interests in particular subjects. Their decision to take a particular subject in form five was based on their future occupational aspirations, academic achievement, and whether their families/parents could continue paying for their schooling. The girls' choices were also based on their academic performance, interest in certain subjects, and their desire for upward mobility, recognition, wealth, status and the quest for non-traditional African family life in the future.

Although the girls viewed schooling as important they were however conscious about the pedagogy of difference that permeated their everyday lives and which attempted to institute a measure of social control in relegating them to areas that have been traditionally occupied by women. Eli receives these messages at school, home and the community that women are "weak hearted" and cannot aspire to be pilots. Mai just knows that "girls don't love the sciences." Len talks about her cousin who believes that "girls aren't meant for the sciences." Fri is snubbed by her teacher when he says "that is how science is," which might mean "you either get it or do not get it, and being a girl, I am sure you do not belong here" (my analysis). Consequently, the girls characterize their negotiation of the school and community spaces as a fight for one's future. Their struggle is a quest for redefinition of themselves as females in Cameroon society and as independent and wealthy girls. As Kris puts it, she wants to become what her mother wasn't able.

The girls in this study recognised that few females pursue studies and careers in science and technology in Cameroon and some aspired for occupations in both the arts and sciences. Importantly, they endeavoured to acquire skills that will provide them with the credentials to compete in the Cameroonian labour market and in some cases in the global market as exemplified by Len who recognizes that "technology is kind of developing so I would love to also develop some kind of drugs" and keep up with the changing times in the global market place. Hence, they chose subjects based on their perceptions of the Cameroonian labour market and their desire to possess a labour market advantage. These were perceptions that the girls put together from conversations with friends and family, and shaped their aspirations. Another important influence on the girls' subject choices is the remuneration associated with certain occupations. For example, several girls noted that

accounting was a non-traditional occupation for women that paid well and offered opportunity.

The girls chose subjects based on their interest in a particular subject. The subject was said to be interesting depending on the way the teacher taught it and if it related to their every day lives. Whether the girls were aspiring to arts or science specializations, and whether they were coming from an elite or working class background, many of them wanted curricula and teaching that connected to their everyday experiences. Vera used the example of her literature teacher who linked a literature lesson to daily life and governance in the community to show how curriculum content could be grounded in real life experiences. Ndi told of the teacher who illustrated the links between economics and her understanding of the market forces of demand and supply. Mai's illustration of how a domestic chore (baking) excites and intrigues her interest in chemistry (mixtures) demonstrates how the subject matter can take on meaning in relation to her life as a woman. The girls critiqued teaching for being autocratic, lecture centred and involving a lot of note taking. This reveals their critical consciousness in wanting to engage in knowledge production using a participatory approach to teaching and learning and incorporating women's ways of knowing. Arndt (2002) describes such an approach as not only far-reaching but could transform existing gender relations within the African context.

The girls also noted differences in women and men teachers. Although all of them mentioned that they have had good male and female teachers, their experiences reveal a preference for ways of teaching often associated with women. They recognised their female teachers are more inclined to ask about their well being and focus not only on the student as learner but also on the emotional, psychological, and social aspects of being a student. This

was consistent with the findings of Donaldson and Dixon (1995) who maintain that female students value conversation because it builds on relationships and assist female students to construct associated meanings rather than study science in isolation. On the other hand, male teachers focused too much on teaching the content and failed to see the other aspects of being a student. Kris suggests that, "students should not be afraid of the teacher to the point that when you see the teacher you go frightened." Neither should they have teachers like Noel's form two chemistry teacher who would enter the class and "no one could turn around to ask the friend for a pencil." Furthermore, the girls contend that female teachers are more likely to be polite, forgiving and kind hearted. These are some of the qualities of a good teacher that they construe to facilitate their understanding of a subject.

The socio-economic background of the girls' families is a major influence on their subject choices. For those coming from a working class background their choices and aspirations were constrained by the limited financial capital of the parents and the burden of housework. For this reason, there were differences in the aspirations of girls from an elite class background and those of the working class background. Girls, whose parents possessed more social, cultural and financial capital, were confident that they would continue at the university level whereas those whose parents acquired less capital, sought to acquire training that was immediately marketable. When we examined the factors that influenced girls' access to schooling in chapter two, we found that poverty prompted parents to make gendered choices on who goes to school. Similarly, this study also found that poverty affects the choice making process of the girls and limits their participation in post-secondary schooling and in areas of science and technology, which are expensive programs. Kris brings to mind the importance of financial capital when she emphasizes that you cannot continue to

the university without financial support from family. Len also supports this view and uses her advantage of social capital embedded in her father's friends and family member who would support her even in case her father dies. However, financial capital influenced girls choosing specializations in both the arts and sciences and not only the sciences as suggested in the literature.

In addition to the lack of financial resources, domestic work expected of girls especially from working class backgrounds, influenced the choice making process of the female form four students. Mai's analysis of how she has to trek for a long distance to school coupled with the cooking and baking of pastries to sell at home renders her completely exhausted at about 9:00 p. m. and makes it difficult to assign herself to her schoolwork. While the working class girls felt that their undue involvement with domestic chores hampered their academic work and they complained about the lack of financial capital of their parents as it affected their choices, that was not the case with those of the elite and some who came from a middle class background. Contrary to Mai's experience with domestic work, Len finds herself in a middle class home where she confesses that it was not until form three that she started doing her laundry. Her parents always hired a house help to do all the domestic work that gives her enough time to concentrate on her studies.

The girls' awareness about their financial capital demonstrates that they make rational decisions about their future aspirations based on the amount of financial capital their family possesses. Most of the girls from an elite background who had the requisite financial capital to pursue post-secondary studies and occupations saw themselves attending university and were more convinced that they would succeed in their aspirations. Conversely, those from a working class background whose parents did not possess the economic, social and cultural

capital were more likely to select professional schools and more immediate entry into the labour market. Notably, the girls from the working class background saw education as a means of rising above the their working class and achieving upward social and economic mobility.

According to the decision and rational theoretical approaches to choice making, the process of making decisions is constrained when the individual is not furnished with the information required in choice making. Gray and Herr (1998) argue that good decision-making requires that the individual have adequate information and an effective way of analysing this information. In the absence of school counsellors to assist in decision-making, the girls relied on information from their peers, friends, siblings, parents and members of the community. The result was that girls attending the same secondary school but coming from different socio-economic backgrounds had different beliefs about what subjects they required to pursue certain occupations.

Kris and Clo had inconsistent views about the subjects they need in order to become an accountant. While Kris, a working class girl who lives in a university neighbourhood and attends secondary school has learnt that " before you want to be an accountant you must know math." Furthermore Kris says, "you cannot do history and go and become an accountant. You must know math because as an accountant you need to know math, calculations, to calculate things easily without wasting anytime." Conversely, Clo tells us that, "my uncle is doing it, and he told me that if I want to become an accountant I must have economics, history and math. I don't know, I am not good at math, I don't know." While the two girls identify that mathematics is a core subject that would lead to accounting in the future, Clo's reliance on the uncle's suggestion that history is also important is misleading.

Nevertheless, there are other students like Eli who have general ideas about the academic and career paths that the subjects they are taking will lead to as when she says "I like the subjects because firstly what I will like to become in future would be based on the sciences."

Girls from the middle and elite social background had an advantage as they could rely on the social and cultural capital of their family and friends. Whereas girls from the middle and elite class backgrounds had parents and family members whose cultural and social capital provided them with information about the subjects leading to certain post-secondary specializations and occupations, most of the children from a working class background did not indicate a desire to do post-secondary schooling even when they were doing the sciences. It was observed that parents with the social capital, who helped their children with schoolwork, encouraged them to specialize in science subjects and provided them with information and assistance inadvertently put a sort of pressure on the students to succeed. As I engaged with the girls in this research and formed different kinds of relationships with them, I became fond of Len whose father was a senior master of discipline and a chemistry teacher and her mother a biology teacher. I also observed that on a one-to-one basis, Len was very engaging but during lectures she became a passive listener. Although she had expressed her love for catering for children, she noted that her mom has suggested that she become a paediatrician since few Cameroonians have specialized in that field. During our first interview she mentioned that her mom was more likely to teach her at home and sometimes her father would do the same. She could also get support in physics from her father's friend. All this support from Len's family and friends wielded pressure on Len to succeed. She was a good student barely struggling to earn good grades and at the same time striving to become

this science student that her parents had envisaged for her. Len typifies students with excess social and cultural capital who have to keep up the family name and pressure.

The social capital that influenced some girls' decisions took different forms. Some had parents especially mothers who taught them at home. Others had family friends who were willing to teach them. Some had role models in areas of science that were influencing their choice of science related subjects and occupational aspirations. Consequently, social capital transmitted through relationships with parents, friends and neighbours had a positive influence on the girls whether they were coming from a working class background or from an elite background.

While the girls' aspirations and their personal self are profound influences on the girls' subject choices, the school and home environment are also major influences on the girls' decisions about subjects. The teachers, parents, family, and friends explicitly and implicitly encourage or discourage the girls in certain subjects by their action or the things they say about what girls should or should not do. Furthermore, parents from different socio-economic backgrounds have different expectations for girls and boys. Those from a working class background are more likely to assign their daughters to tasks at home of cooking, cleaning, laundry and catering to their siblings. This was not always the case for students from the middle class and elite backgrounds. The gender roles among children of the elite and middle classes did not expect girls to do the cooking and it was more common in these cases for the parents to cook at home.

Although the girls recognized the stereotypical notions in their socio-cultural milieu about gender roles of females and males, and the academic areas appropriate for girls, they were never a deterrent. Instead, these stereotypes motivated the girls to enter male dominated

professions. This gives the girls a sense of agency in their actions and aspirations. This supports the view of Gaskell (1992) who claims that even the most oppressed have some latitude for action. She contends that schools are sites of contestation where those of the upper and lower classes vie for the acquisition of knowledge that will lead them into the labour market. Some of the girls see schooling as a fight for their future and a terrain were social inequality is contested among students with different levels of power. The girls exhibit agency by striving to take science subjects in spite of the mixed gendered messages they get from the school, their families and communities. What was important for the girls in this study is not necessarily to get into areas of science, but becoming professional women who are financially capable of taking care of their children and future families.

Another example of agency among the students is their strategies to cope with a particular teacher whose teaching was not appealing but whose subject they needed to take in the future. Girls with the economic and cultural capital hired teachers to come to their homes and offer remedial classes in the needed subject. Sometimes parents or friends of the parents assisted. Girls from working class backgrounds relied on siblings to help them if they had them, a neighbour, or their classmates to try to figure out things they did not understand thereby making their disadvantage worse.

This study extends the existing knowledge on subject choice decision-making in a number of ways. The study draws on Gray and Herr's decision theory approaches, which are wide-ranging and provide a methodical way of examining individual, institutional and societal influences on the choice making process. The inclusion of African feminist perspective on gender sheds light on the contradictory and complex nature of the aspirations of these young women who want to be professionals and at the same time uphold cultural

values embedded in family life. Through the voices of the 20 girls who participated in this study, I provided a detailed portrayal of their perceptions, aspirations and subject choice decisions. The theoretical frameworks that informed my analysis and the findings of this inquiry have the potential to invigorate the discourse on gender and schooling in Africa especially at a time when researchers, policy makers, education planners and development experts are striving to develop learning environments that are conducive for females and males.

Implications

For Further Research

This study provides insights into girls' decision-making about subject choices as they move from form four to form five in secondary schools of Cameroon. The findings provide a micro perspective of the processes that underlie girls' low scholastic participation in the areas of science and technology. The findings can contribute to the development of a survey instrument that can provide a fuller understanding of students' decisions in the broader population of Cameroon.

This inquiry examined girls' decisions about subject choices but little is known about boys' decisions and the influences on them as they move through the same crucial stage of secondary schooling. Similar research on boys' experiences and aspirations will help to identify the differences experienced by boys and girls and provide further insights on the gendered experiences of schooling.

This study focused on girls' perspectives and indicates the important roles of teachers and parents in the girls' academic decisions. Further investigation needs to be done on the perspectives of teachers and parents in relation to this issue.

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I am in contact with some of the participants in this study and trying to develop ways by which I could correspond with most if not all of them. I will endeavour to follow up the girls' progress to see which one of them will achieve their aspirations.

For Curriculum and Teaching

The findings of this study point out the difficulties girls face in the current school system in Cameroon. None of them aspired to an occupation or career in computer technology. Many aspired to professional occupations that fall short of moving them and the society into the new technology-based economy. This suggests limitations in the current secondary school curriculum. Forty-three years after independence, the secondary school curriculum is very much fashioned after the same models used during the colonial rule. This raises the question of the kind of curriculum and schooling that would be most appropriate to Cameroon. The girls in this study want more female-friendly curriculum and pedagogy; schooling that would be more experiential, linked to community, everyday life, and utilizes participatory approaches to learning.

The Ministry of Education in Cameroon is challenged to imagine a new post-colonial curriculum and schooling system that values indigenous ways of knowing and is relevant to both local and global challenges. There is a need for strategies to find ways to establish local norms identifying what and how education ought to be. This process will involve traditional rulers and local policy makers coming together and theorizing about the future progress for Cameroonian education. For example there is reason to be cautious about encouraging girls and women into sciences and technology as a solution to social development and economic well being. While science and technologies are undoubtedly driving forces in the economy,

there are also reasons to value economics, innovation and entrepreneurship; and a liberal education for all.

For Policy

Since curriculum is based on government education policy, it is also worth noting the need for science education that is girl friendly and Cameroonian based. Though FEMSA was influential in the girls' school as a reminder that girls had a place in science, there was no equity policy evident in the school that encouraged employing women in non-traditional roles, or as teachers of non-traditional school subjects. female role models in science and non-traditional careers were also lacking.

Career counselling was also lacking, requiring the girls to rely on their own contacts and resources for information. Improving opportunities for girls in science and technology can be enhanced through: employment of guidance counsellors, implementing gender equity guidelines and goals for schools, ensuring gender equity in the hiring practices of science teaching staff thereby increasing women role models.

The encouragement of girls and women into sciences and technologies has to also be accompanied by a social and political priority on these areas. There needs to be investment at the state level in public education, technical universities and jobs in the science and technology sector.

Conclusions

The subject choices that girls make are intertwined with their aspirations to become professionals, tempered by the reality of their academic ability, the financial support of their

family and the opportunities that the post-secondary education system in Cameroon provides. Socio-economic status is a main determinant of occupational aspirations of the girls in this study because it restricts the choices made particularly by the girls of working class backgrounds. The girls' decision-making process is rational as they take into consideration their personal self and the chances they have to succeed. However, the sociological influences of the girls' choice making process remain complex and challenging. The girls held considerable faith that schooling would secure for them the better occupations and futures they desired. This belief was supported by their social, family, and community contexts.

The girls expressed considerable confidence in the opportunities available to them and what they can achieve, despite an education system that fails to provide inclusive science classrooms and a technology oriented curriculum. Their subject choices and aspirations may be constrained but the girls use the available educational system to select subjects that will enhance their participation in modern occupations in Cameroon. The girls are cognisant of their choices and determined to "search for their mothers' gardens" (Walker, 1983) that is, to acquire post-secondary education and the occupations that their mothers were not given the opportunity to obtain.

Irrespective of the specializations that girls get into, it is time to step back and begin valuing the contributions and work that women do in Cameroon and Africa as a whole. After all, it is through the determination of many mothers engaging in domestic commerce, that their children are financially supported in school. While girls made up 49.7% of the population in this secondary school, the curriculum did not relate to their realities, experience, and ways of knowing. Instead of "counting for nothing," we should recognize the

contribution women already make to economic development. This is not to undermine the importance of female participation in science and technology but the overemphasizing of their absence in these areas is a detriment to recognising and valuing women's contribution to the family, economy and the society. Importantly, they are individuals with a lot of potential.

While this study found that the girls considered themselves to be individuals with certain aptitudes and capabilities, these qualities do meddle with their aspirations in the same way that the school and home environment does. However, the girls are working against the array of forces impeding their access into their desirable academic and career paths. Notably, whether these girls were coming from an elite or working class background or aspiring to become an art or science student, they exhibited a lot of agency by making subject choices based on their intellectual, emotional and material needs. Overall, the girls' perception of their educational process continues to be shaped by state policies, social and cultural philosophies and traditions, and the socio-economic disparities.

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Appendix A

First Interview Guide

1. Educational experiences, aspirations and achievements.

Tell me about your life as a student in Bilingual Grammar School (BGS)?
Probe questions:
- Did you begin your secondary school in BGS?
- Are there any reasons for choosing BGS/how did you choose this school?
- What is schooling like for you at BGS?
- Would you consider yourself an excellent or average student in relation to your classmates?

2. Decisions around subject choices

- Which subject will you consider your favourite and why?
- What subjects are you taking?
- Tell about some of the things that facilitate your studies?
- Tell me about the things that make you like or dislike teaching and learning?
- What makes a school subject interesting or a hassle for you?
- What influenced your decisions in selecting your subjects?
- Are there any subjects you are not taking but would have loved to take and why?
- What are some of the things you considered when selecting our subjects?

3. Future aspirations

- What do you see yourself doing five or ten years from now (e.g., job, career)
- Tell me about some of the things that influenced your ideas of what is possible in future?
- Are the subjects you are taking important in helping you attain your future goals?
- How does schooling help you attain your future goals?
- Do you see yourself in university and/or college?
- Did anyone help you in making this decision and how?
- Do you think you are going to attain your future goals? If yes, why? If no, why not?

Second Interview Guide

1. Last interview we talked about your early years of schooling and how you decided to become a _____

- Have you been discouraged at some point/ have you been put down?
- Tell me about some of the people that you have been discussing your future aspirations with (parents, friends, family members – which ones, school counsellors, teachers, or others)?
- How do you see your self as a growing female student?
- What opportunities do you see for yourself as a female student?
- What restrictions do you envisage?

2. Good teaching and teacher

- What makes for a good teacher?
- Who do you consider a good teacher?
- Tell about "a good" teacher you met and what made you consider them good?
- Are the teachers you call good female or male or both?
- When do you consider teaching interesting?
- Tell me what you do when you need a particular subject to reach your final goal but the teacher who teaches that subject may not be most interesting?

3. Masculinity

- How do you think that men and women are different?
- What does daddy do around the house?
- Why? Is it changing?
- As a female, child how different are you treated at home by mom or dad?
- Which parent teaches you at home?
- Do you interact with boys of your age/class?
- How are your aspirations different from theirs?

4. Family aspirations

- Tell me how much difference AIDS has made in the way you see yourself living you life in future?
- Do you intend to have a family?
- What kind of family?
- Do you plan to be married with children?
- Tell me about the kind of family you intend to have; who will look after the kids, what will you expect your husband to do around the house?
- Will you rely on your husband to provide income for the family or do will you have to do it as a woman?