

OCCUPATIONAL ANDRAGOGY AND THE INFORMAL
WORKING SECTOR IN GABON

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Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
December, 1981



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1981

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ACKNOWLEDGEMENTS

The writer wishes to express his appreciation to the many individuals who assisted in his study.

In particular he acknowledges the counsel of the committee Chairman, Dr. Richard Tinnell, who reviewed the work as it progressed and provided the appropriate leadership. Also, the writer would like to extend recognition to Dr. John Baird, Dr. Wayne James, Dr. William Jaynes, and Dr. Lloyd Wiggins, members of the committee.

Special recognition is extended to Kim Craig for sharing her knowledge and expertise on non-formal adult education, Dr. Joan Baird and Dr. John Baird for their continual encouragement, and the Vocational Education Leadership Development Program for financial assistance.

The investigator is grateful to Susan Haugen for consenting to type the final copies of the study.

Appreciation is also expressed to the citizens of Gabon and particularly the men and women working in the informal sector whose patience and cooperation made this study possible.

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CHAPTER I

THE PROBLEM

Introduction

The development of viable occupational skills is nowhere more acute than in Third World African countries. Abodiu (1981) crystallizes these concerns in regard to the issues of employment and technical development:

In the pursuance of this (technical development) goal, we are persistently nurturing a dependent situation which is entrenching transfer from abroad at the expense of technology development at home.

Local training programs are often geared primarily towards meeting foreign standards and not enough effects are concentrated to adapting or evolving technologies to our natural endowments (p. 56).

The process for the development of occupational skills in Africa has centered on mimicing Western-oriented educational models. This flow of technological assistance and planning to African countries has produced a European education model in a non-European setting. A Western model that would be adapting and changing to the times in its home setting inevitably remains unchanged once introduced abroad. This type of horizontal transfer has produced some African education systems that have changed little since they were instituted in the nineteenth century (Ki-Zerbo, 1974).

In Francophone countries utilizing a French educational infrastructure this transfer model continues to dominate course syllabi, certification examinations, teacher training and the language of instruction. Ki-Zerbo's reflection on current educational transfer systems contends that they have turned the content of education completely away from African culture.

The growing dissatisfaction by Third World citizens over their educational structures has stimulated interest in the development of self-generative, culturally viable approaches to learning--approaches in reference to technical skills and employment that will provide a cohesiveness between work and education and take into account the limitations of schooling.

Schools will be less and less in a position to claim the education functions in society as its [sic] special prerogative. All sectors--public administration, industry, communication, transportation must take part in promoting education. Local and national communities are in themselves eminently education institutions (Faure, 1972, p. 106).

Statement of the Problem

Gabon is experiencing difficulty in developing qualified technical personnel. The effects of current education and training models have produced upper level managers and administrators but few Gabonese artisans or entrepreneurs.

The development of technical education is a major concern of Gabon's President, El Hadj Omar Bongo (1979):

Technical education remains one of the priorities of government, for industrialization, one of the

wings to development, necessitates training at all levels of qualified personnel (p. 5).

Attempts to develop qualified personnel at all levels becomes compounded by (1) the formal education system which tends to reinforce the ideological gap between labor intensive employment and education, and (2) the lack of research focusing on currently operating indigenous learning models in Gabon.

Need for the Study

The mainspring for economic development in Gabon rests on the growth of its industrial sector, Technical Education and Vocational Training in Central Africa (1970). In order for the industrial sector to be fully utilized, new approaches to skill acquisition will need to be formulated. This action will require information from other sectors of the economy in order to provide learning alternatives to the formal education system. In Gabon one sector that has not been examined in regard to its potential and limitations is the informal working sector (I.W.S.).

Purpose of the Study

This research examined the informal working sector in Libreville, Gabon, regarding the elements of skill transfer and acquisition. Gathering information about the activities within this sector was accomplished by meeting the following objectives:

1. Outline and describe the activities operating in

the informal sector in Libreville.

2. Provide a descriptive demographic profile of workers within the informal sector in Libreville.
3. Determine the types and range of occupations in the production component of the informal sector in relationship to categories of production and skill level in Libreville.
4. Describe and compare the learning processes used for transmitting technical information in the formal education system and in the informal sector in Libreville.
5. Determine the status of the informal sector as a viable alternative to formal education structures for occupational skill acquisition in Gabon.

Assumptions

This study is based on the following assumptions:

1. The informal sector is composed of only two major components, a service and production side.
2. Activities within the two largest quarters of Mt'Bouet and Akebe are representative of Libreville's informal working sector.
3. The informal working sector contains an identifiable learning process for the communication of occupational skills.
4. The mobility and plasticity of the informal working sector is amenable to the use of descriptive research techniques.

Limitations

The limitations encountered in the development of this study came from a lack of quantitative data available on the I.W.S. in Gabon and from the existing political situation between Cameroon and Gabon.

The concept and reality of the informal sector as a vital aspect of the economy has been overlooked in Gabon as in Kenya and other African countries. This omission has resulted in a shortage or absence of manpower reports, employment records and other quantitative data dealing with the I.W.S.

On May 23, 1981, political tensions between Gabon and Cameroon culminated in the exiting of ten thousand Cameroonians. Cameroonians provide much of the manual skilled labor in Gabon and make up a good portion of the I.W.S. Presently one-quarter of the Cameroonians in Gabon have left and those remaining, as well as other nationalities, have developed a general xenophobia. The result, understandably, has been some trepidation on the part of people to be interviewed about their work and lives. Individuals who consented to be interviewed have been given pseudonyms for anonymity.

The development of the informal sector in Gabon is a unique mixture of cultural, historical, and economic factors. The indigenous development of this productive sector is strictly Gabonese and needs to be examined in that light. To use the information in this study to do more than hypothesize about the development of the informal sector in another geographical area could produce false conclusions.

However, the developmental steps pursued in this inquiry process make it applicable as a reference guide for use in other similar settings.

Definitions

The developments in the informal sector make it difficult to generalize from one geographic or cultural setting to another. This study has modified terminology to represent these particularities in Gabon.

1. Andragogy--A participant-centered learning process for acquiring information and skills. Expanded in this study to include a learning approach to skill acquisition that is learner-initiated, process-oriented, and socially-integrated.

2. Francophone Africa--French speaking African countries that were once part of the French colonial system, and geographically located south of the Sahara.

3. Informal Apprenticeship--An educational process whereby an apprentice attaches himself to a practicing craftsman (patron) in order to master the patron's skill. This process falls outside the formal education system and is not formally recognized by the Government as a valid mode of learning. The process incorporates an orientation to learning that is problem-centered, self-directed and built on the apprentice's readiness to learn. A process more closely associated with traditional learning and andragogy than twentieth century Western pedagogy.

4. Informal Working Sector--A segment of the labor force that is employed in activities outside the formal working sector. Distinguished by activities that (a) are labor intensive; (b) utilize manual skills; (c) make use of local resources; (d) apply manual and tool skills usually gained outside the formal education system; (e) are non-ostentatious in structure, facility, or location; and (f) often parallel activities in the formal working sector.

This sector is considered to be composed of two major components: service and production. Synonyms used in describing these components, operations, and entrepreneurs include:

- a. marginal work groups
- b. small-time entrepreneurs
- c. casual labor
- d. semi-skilled
- e. uncertified workers
- f. small-scale African enterprises
- g. artisans

5. Occupational Andragogy--A learning process used to communicate occupational-related skills in conjunction with an approach to learning that recognizes the independent nature of learners to personally affect their own learning through expectation, participation, and design. This process is more prevalent in societies that condense in time and space the roles of childhood and social responsibilities.

6. Quartier--A geographically designated sub-section

within Libreville, whose population often share a common nationality.

7. Service Component I.W.S.--A side of the informal working sector oriented around service-type employment, usually in the areas of food and domestic activities.

8. Production Component I.W.S.--A side of the informal working sector oriented around the production of manufactured goods via small-scale enterprises, i.e. welding.

9. Skill level--The range of technical and occupational proficiency affiliated with product manufacturing as detailed in the literature section of this study.

10. Technical Education--Any occupationally related program within the formal education system associated with skill training, vocational education, and higher technical speciality education.

Organization of the Study

Chapter I introduces the study, presenting the problem, need for the study, purpose of the study, assumptions, limitations, and definition of terms. Chapter II includes a review of related literature dealing with the informal working sector, the relationship between education and work in Francophone Africa, learning as a process, and a summary. Chapter III describes the methodology and design of this study, including the development of the interview guide, collection of data, analysis of data, and selection of the subjects. Chapter IV examines the service and production

components of the informal working sector focusing on occupational andragogy and the informal apprenticeship process. Chapter V concludes the study with a summary, conclusions, and recommendations for increasing the number practitioners of occupational skills in Gabon.

CHAPTER II

SURVEY OF THE LITERATURE

Studies of Education, Work, and I.W.S.

There are two major studies of the informal working sector in Africa. A focus on these studies in relationship to skill acquisition, education, and employment falls into three categories: (1) the historical developments that have affected education and work in Francophone Africa, (2) the processes of learning as applied to participant-centered approaches, and (3) the identification and implications of the informal working sector.

Education and Work in Francophone Africa

The development of technical and labor intensive education in Africa has been built almost entirely around Western education models. Goulet (1975) reported that imported programs traditionally have dominated the economic and cultural patterns into which they were introduced.

The effects from educational transfer are described in Historical Aspects of Education in French-Speaking Africa and the Question of Development (Ki-Zerbo, 1974). Customarily, education in Francophone Africa prior to the sixteenth century was of a low technological level with a high

ideological and social mix. Present day education with its high technological influence has introduced a model with a low ideology and social mix.

Ki-Zerbo contends that under the French education model, education in Africa has been moving further away from societal autonomy and labor intensive education. The effects of this movement have produced technical and occupational programs that are plagued by high drop-out rates and growing numbers of grade repeaters. Further, graduates of technical programs are often offered low-paying jobs or jobs not related to their educational backgrounds. This study reported that students entering occupationally-oriented courses were perceived to be of lower social rank than students in purely academic programs. This view was continually reinforced as academically- or technically-oriented graduates moved into political and high administrative positions while graduates of vocational or trade schools were viewed as having less administrative potential.

Ki-Zerbo stated that in order for education to be re-oriented in Africa, it will need to be based on an African reality. Studies should be matched with work beginning at the primary level. Elitism needs to be rejected by changes in instructional methods; course syllabi; teaching in African languages; the development of new attitudes concerning the roles of teachers, parents, and learners; and the concept of school.

Foster (1977) elaborated on Ki-Zerbo's ideological aspects of the European education model. This aspect

described as the white-collar myth refers to the social view implied about learners and workers involved in technical education or employment. The myth, which found its roots during colonization, concludes that white-collar employment is the prize of an educated person. Conversely, employment in less than a white-collar job does not require a formal education.

Foster (1977) stated that student interest in occupational subjects would increase or decrease in proportion to employment opportunities in the working sector. Development structures implying that formal education can act as a stimulus for immediate and long-range job development are premature. Research in Ghana pointed out that:

Aspirations are determined largely by the individuals perception of opportunities within the exchange sector of the economy, destinations by the actual structure of opportunities in that sector. The nature of educational instruction has little to do with the process, and the schools are unfairly criticized for creating a condition for which they have not been responsible - except insofar as they turn out too many graduates (Foster, 1977, p. 362).

School and education programs other than schools do not affect the initial career destinations of students, but rather factors outside the school motivate career choices. Foster states that a closer examination of the variables within the economic system should precede the initial stages of vocational instruction.

Technical Education and Vocational Training in Central Africa (1970) details a feasibility study for the development of quick start vocational programs in Cameroon, Central

African Republic, Chad, and Gabon. A series of recommendations for Gabon elaborated on the need to better define occupational and economic projects as well as develop more middle-level manpower. A further recommendation described the need for Gabon to stimulate its industrial sector and address reform of its French education model in order to generate programs to better meet vocational and technical requirements.

Learning as a Process

Educational approaches which are process oriented and have specific application to the production of skilled labor are illustrated in the studies of Kindervatter (1979), Labelle (1976), Knowles (1978) and Tough (1978), respectively. The importance of these approaches in Third World development gain increasing value with the growing dissatisfaction of the formal school system in its attempt to reflect the needs of the urban informal workplace (Foster, 1977).

Non-Formal Education As An Empowering Process (Kindervatter, 1979) emphasizes the utilization of social and economic forces to influence relationships via the infusion of learning. In obtaining occupational skills, programs are participant centered and designed for learners to analyze personal life situations and needs, then formulate actions to deal with these situations.

Kindervatter stated that her proposed structure of non-formal education defines its actions in both conceptual and

practical terms. The potential of this approach was documented in case studies from Thailand and Indonesia.

Kindervatter's concern with the application of change, which can be created in an educational process, incorporated earlier research conducted by LaBelle (1976). LaBelle's Non-Formal Education and Social Change in Latin America described major areas that facilitators must be aware of as prerequisites for learner-oriented participation. These areas included:

1. Understanding client needs
2. Involving clients in their own learning
3. Applying new behavior to their environment
4. Linking a program with the wider system
5. Recognizing internal and external influences on client incentives.

LaBelle emphasized the importance that participatory education can have in affecting ideology, technology and social organization.

The individual's role as a change-agent can only be affected by the way that individual is perceived in the learning process. Understanding the complexity of the learner and ways of orchestrating those complexities for acquiring information and skills are described in The Adult Learner : A Neglected Species (Knowles, 1978). Knowles's (1978, p. 116) approach to learning is based on the individualization of the learner's needs, from data gathered via the individual, organization, and society.

The orchestrating role of the teacher/ facilitator

requires a sensitivity to the unique competencies that adult learners possess. In understanding these competencies Knowles identified four assumptions about the adult learner:

1. Changes in self-concept move from dependency to increasing self-directedness and independence.
2. Years of maturing produce a reservoir of experiences that the learner can tap and utilize.
3. In the roles of citizen, worker, parent, etc. adults are motivated to learn because of a recognized need.
4. Adults are problem-centered in their orientation to learning while children have been conditioned to be subject-centered.

Knowles' stated assumptions formulate his andragogic process model, andragogic in terms of helping adults become self-directed learners versus the pedagogic educational model based on the art and science of teaching children.

The historical approach to educational pedagogy has focused on children as the basic model for all education. This approach, developed during the Middle Ages, condemned the dialectic and learning-by-doing models, while establishing an educational format that eulogized the teacher as the processor of information and the role of learners as passive and obedient.

Although andragogy tends to focus on adult learners, its concepts refer to the emotionally mature regardless of chronological age (Knowles, 1981).

Research supporting the self-directed capabilities of adult learners in guiding and facilitating their own learning is formulated in Major Learning Efforts: Recent Research and Future Directions (Tough, 1978). The study states that most individuals enter into a major learning project each year and that the average time expended is 500 hours or 10 hours per week.

Information gathered from over 20 research projects, including Ghana, conclude that:

Eighty percent of all learning projects are handled by an amateur. This is usually the learner himself or herself (73%), but occasionally it is a friend (3%) or a democratic group of peers (4%) (Tough, 1978, p. 193).

The most common motivation for involvement in learning projects centers on the learners' anticipation and application of the newly gained knowledge or skill. Only 5 percent of the self-directed learners interviewed were motivated by the anticipation of gaining university degrees, certifications, or formal certificates. Formal recognition tended to be a poor motivational force in attracting learners into learning projects.

The report stated that large proportions of learning take place through self-initiated projects; and, therefore, necessitates some rethinking in regard to traditional approaches to education.

The Informal Working Sector

Two landmark studies dealing with the informal working sector (I.W.S.) in Africa were conducted in Kenya.

The African Artisan (King, 1977) focused on the productive and manufacturing side of the I.W.S. The study suggested that a different type of educational design might occur if policy-makers and technical planners sought answers to questions addressing concerns, skill levels, types of training, and the kinds of products needed, prior to instituting training programs.

The report emphasized the value of the informal sector in providing goods, employment, and an environment conducive to the development of skill potential. The potential of this sector's elements can be tapped through the use of the informal apprenticeship process and at a formally recognized out-of-school learning site.

The documentation and examination of the informal sector is important if this sector is to gain value in the eyes of funding sources and government planning agencies. King noted the need for less linear expansion in the area of formal education and in the ideology that education can only take place in an institution. Three learning systems identified included: formal education, on-the-job training, and indigenous apprenticeship.

The nature of the informal sector is broad and complex but distinguishable by its service and productive sides. This descriptive study of the informal sector cautioned against making generalizations about activities within this sector in Kenya to the rest of Africa. However, the generic nature of this study's outline and format make it applicable for the examination of the informal sector elsewhere.

Viewing formal and informal approaches to occupational programs as a continuum in the skill development process required a definition of the relationship between skill and product development. This was developed by King (1977) through a five item category scale.

Production Category	Skill Level
1. Traditional craft sector	High degree of skill
2. Informal-cum-workshop sector: cheap hardware, furniture, food and clothing items	Rough and ready manual skills, very rapidly acquired
3. Precision workshop or small factory sector: engineering, toolmaking, casting, machining, spare part manufacture, small-scale part manufacture, small scale processing, basic tools and machinery production	Very high degree of manual skill
4. Medium and large scale process and assembly plant: primary agricultural processing, assembly from knock-down kits, food and drink processing	Low level of manual skill but varying with degree of instrumentation and control technology
5. Heavy engineering: capital goods machine tools, production machinery (pp. 203-204)	High level of manual skill

Employment, Incomes, and Equality (International Labor Organization, 1977) examined labor intensive activities in regard to the frustrations of job seekers, low wage returns from employment and better utilization of supportive job training. The major elements of these issues are not with the unemployed but with the equity of the employed. This

form of equity is multifaceted and represented by the imbalance between the expansion and contraction of the labor force, urban population, and education, and worker expectations and aspirations in relation to available job opportunities.

The activities of the informal sector in Kenya provide a variety of competitive goods and services at low cost, utilizing labor intensive actions. The report recommended the Kenyan Government support and take a position promoting the informal sector and that actions be initiated to remove the dichotomy between education programs in and outside the formal education system. Other recommendations included the elimination of unnecessary licenses, intensification of research on suitable product development and encouragement of industries to give preference to local suppliers.

The importance of identifying and addressing the training needs of individuals within the informal sector was amplified in Education (1980). This World Bank policy paper contended that between 25 percent and 60 percent of workers in developing countries work in the informal sector. The development of data about this sector is necessary in order to know when to provide on-or off-the-job skill training. In the formulation of training projects it was suggested that (1) training instructors be selected from among local workers and (2) communities have responsibility for operating training programs. The report emphasized learner participation at all levels and the need to reduce the obstacles between the education and working sectors.

Summary

The acquisition and development of occupational and employment skills in Francophone Africa has been strongly influenced by the French education model and European colonization. These influences have produced a formal approach to skill mastery and an ideology that suggests intellectual work is superior to occupational education and manual labor.

The dissatisfaction with transferred education models by the Third World has aroused interest in indigenous learning environments and participant-centered education. The examination of educational approaches outside the formal education system has gained validity by establishing (1) the potential of education to invigorate an individual when that education is participant-centered and focuses on process in conceptual and practical terms, (2) the need to stimulate self-directed learning via redefining the roles of teacher, learner and education, and (3) that since approximately 80 percent learning is presently taking place outside the formal education sector, alternatives need to be examined in conjunction with the formal education model.

The search for new avenues and approaches to skill development and labor-intensive employment has produced interest in indigenous learning and economic developments within the informal sector. This sector, which has been largely ignored by researchers until the past decade, is

gaining credibility as a resource in the formulation of informal skill training, marginal work groups, and technological development.

CHAPTER III

METHODOLOGY AND DESIGN

Development of the Instrument

A guide composed of 21 questions was developed to help structure the interviews. This instrument, see Appendix A for both the English and French version, was organized in three parts, each part representing a visit. The questions were developed to ascertain (1) what skills were practiced, (2) how skills were learned, and (3) how the individual would go about gaining a new skill in Libreville.

The questions were field tested in Gabon and revisions made accordingly. The guide was then translated into French for use by a French speaking interviewer.

Collection of the Data

The methodology of data collection follows the interview and direct observation methods employed by other researchers studying the informal sector in Africa (Employment, Incomes and Equity, 1977; King, 1977). Over a one-year period the following resources were utilized: (1) literature, (2) interviews, and (3) observations.

Quantitative data was principally gathered from locally produced Gabonese publications. Other data sources from

outside Gabon came from personal correspondence with international information agencies and from data obtained at the World Bank and reference libraries at Oklahoma State, Georgetown, and George Washington Universities.

Most of the descriptive analysis data on the informal apprenticeship process came from 21 interviews with entrepreneurs and artisans in Libreville. Data were collected over a five-month period in Gabon utilizing multi-variables from a single source and multiple sources drawn from Libreville's population of 251,000.

Analysis of Data

The data collected are analyzed and presented in a descriptive analysis case study format. The two case studies typify the activities and views observed and obtained from artisans and workers interviewed in Libreville. Other data gathered but not developed in the individual case studies are presented in descriptive form within the body of this research.

Selection of the Subjects

Subjects for the various interviews were chosen from throughout the informal sector in Libreville. No interview was attempted without some type of introduction first secured by a third party in order to explain the nature of the study. Through living in Libreville, enough contacts were made to provide a resource bank of available subjects who represented a broad skill range.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The informal working sector (I.W.S.) in Libreville is spread throughout the city's population of 251,000 and is reflective of Gabon's economic and social situation (Appendix B). It is estimated that within this population between 62,750 and 150,600 people are engaged in some activity in either the service activities or production (World Bank Report, 1980). Analysing the activities of the formal and informal sectors confirms the difficulties experienced by other researchers in attempting to sharply differentiate between them (King, 1977). To grasp the range of activities that encompass the informal sector requires a separate examination of its service and production components in relationship to (1) the occupations practiced, (2) profile of workers, and (3) skill acquisition and transference.

Analysing the current networking of occupational skills in the production component is accomplished by examining (1) the informal apprenticeship process in the informal working sector, (2) private industrial training in the formal working sector, and (3) technical education within the formal education system.

The Informal Working Sector

Service Component

The service side of the informal sector provides a variety of employment-oriented activities, as listed in Table I. Within this listing the principal categories of food services and domestic employment represent the largest concentration of workers. Services and occupations tend to be divided along the lines of sex, age, and the geographic location.

Small road-side stands selling a variety of foods ranging from fried plantains to smoked fish are provided by women and their children. Three times a day food services can be found located along busy streets, near bus stops, or in any of the heavily traveled sections of town outside Libreville's central business area. While adults are involved in cooking, children watch over stands or fetch and carry wood for fires or water for cooking. The cost of meals varies and they are often given on credit to regular customers, a practice that puts a strain on the thin profit margin of stand operators. Almost all of the vegetables and fruits sold have been grown outside Libreville and trucked into the city. Stand operators spend a great deal of time purchasing, preparing, and transporting foods and other necessary supplies for cooking and selling.

The selling of any product from a permanent location requires a local business license. The cost of these government licenses is determined by the types of services provided

TABLE I
 CATEGORIES OF SERVICE ACTIVITIES WITHIN
 THE INFORMAL WORKING SECTOR

<u>Transport</u> Taxi Driver Shipping Operator Truck Driver <u>Repair and Maintenance</u> Tire Repairer Auto Mechanic Truck Mechanic Moped Mechanic Welder Painter Bicycle Repairer Plumber Electrician Metal Worker (Auto Body) Watch Repairer <u>Domestic Services</u> Cleaner Babysitter* Gardener Cook Grass Cutter House Guard	<u>Commerical Services</u> Bar Operator Barber Hair Dresser Porter (Airport) Car Washer* Prostitute Gatherer (Wood, coconuts)* Tender of Food Stands* Building Guard Seller Handmade items Vegetables Fruits Fish Notions Cloth Alcoholic drinks Baked goods Newspapers* Coconuts* Cardboard boxes* Meat Scrap bottles*
---	--

Symbol: * Predominantly child-oriented

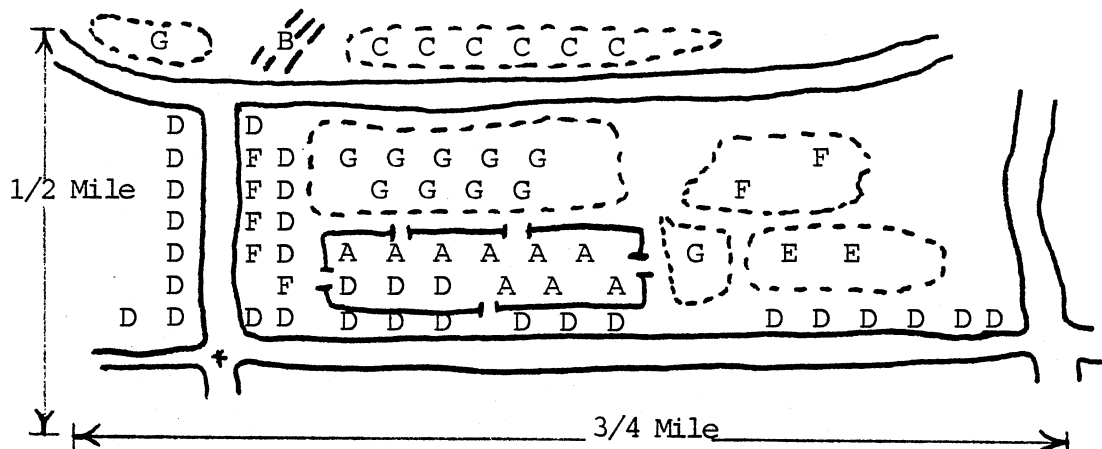
and goods sold. This expense has been a determining factor in the longevity of both formally and informally operated businesses in Gabon. Often operators hawk their goods without licenses by avoiding the police.

Common activities of men in the service component include fishing, meat selling, and operating small local quartier bars. These bars promote beer and are augmented by women who set-up their cooking fires to sell food to the bar's customers.

Handicraft items from Gabon and other African countries are sold by men in the central business area of town. Goods arranged on open tables in front of formally operated stores are aimed at tourists and the expatriate community. The men associated with selling handicrafts are almost exclusively from Cameroon, Senegal and Mali.

The large quartier markets act as a focal point for food purchasing and selling. Booths featuring mass produced imported goods such as combs, pens, plastic pails and cosmetics are typical. No handicrafts and only a few handmade items are found in these large markets.

Food selling services within any given quartier can be typified by the activities surrounding the Mt. Bouet market as diagrammed in Figure 1. The actions in the quartier markets and those in the formal sector's supermarkets often have direct economic effects on each other. The buying and selling of shrimp dramatizes this relationship and provides insight into the economic connection between the formal and



- | | |
|--|--|
| <p>(A) Permanent Structure
(charge per stall)
Meat*
Fish
Shell Fish
Vegetables</p> <p>(B) Temporary Plywood Tables
Charcoal</p> <p>(C) Roofed Plywood Stalls (4'x8')
(informal skill activities)
Restaurant*
Lumber*
Flour Grinding
Metal Working*
Wood Furniture Making*</p> <p>(D) Permanent Stores*
Clothing Boutiques
Electric Appliances
Barber Shops
General Utility Stores
(soap, liquor, hardware, canned goods)</p> <p>(E) Temporary Plywood Tables
Same as item described by (F)</p> | <p>(F) No Tables
(items arranged on
the ground)
Fruits/Vegetables
Piment
Bananas
Plantains
Manioc: leaves,
processed, raw
Oranges
Calabash Stone
Palm Wine
Dried Fish
Pop Corn
Corn</p> <p>(G) Roofed Plywood
Stalls (3'x6')
Clothing goods
Notions
Household Products</p> |
|--|--|

Symbols: * Male-dominated activities

Figure 1. The Mt'Bouet Market By Structure and Products

informal sectors. Shrimp caught off the Gabonese coast is frozen at sea in nine-pound boxes and distributed through formal sector supermarkets in Libreville. The quantity and cost of this item puts it beyond the reach of most local market shoppers. Quartier merchants purchase large quantities and resell in smaller units from their food stand. Similar items like potatoes, onions, and most produced non-food goods are purchased in quantities from these same sources and resold in this manner.

People employed in food-related functions are second in number only to those in domestically connected services. Domestic services are utilized by businesses, government offices, the Gabonese elite, and the expatriate community in Libreville. These organizations and individuals provide employment for cooks, gardeners, drivers, building guards, and household domestic help. Males working in these activities generally view their services as temporary employment while women tend to perform the same types of jobs throughout their lives. The economy provides little employment opportunity for women who have not completed some type of formal academic preparation.

Children are active throughout this sector with specific job allocations according to their age and sex. While young girls sell peanuts, popcorn, and sweets next to women at the local market, boys sell newspapers and coconuts in other parts of the city. Shell fish are sold by teenage boys outside European style supermarkets but never in the quartier markets where the women sell.

The educational levels needed to perform services in this sector are minimal. Simple recordkeeping and number skills can be learned on the job or gained during some exposure to formal primary education, an exposure that many people have had in the countries bordering on Gabon (Appendix C). Skill needs for sewing, barbering, fishing, and driving usually are obtained through informal instruction by other practitioners of these skills.

Individuals working in food services in this sector tend to be Gabonese women, while workers in domestically-connected services tend to be men and women who have immigrated to Gabon. The attraction to domestic service is the high minimum wage of 40,000 CFA (160.00 U.S.\$) per month, ("Gabon", 1981). The availability of employment and the economic prosperity of Gabon, as compared to its neighbors, has termed itself the showcase of young Africa ("Gabon").

Food Services: Case Study I

Food service activities within the I.W.S. are provided mainly by women. To understand the activities within this large component, a case study is presented that focuses on four typical workers and their daily routines.

All four were born in Gabon outside of Libreville and traveled to the city looking for better economic opportunities. Their ages range from 19 to 60 years. Of the four, three are married and one has a small child. The three married women had difficulty in gaining their husbands'

permission to work and sell at the local markets. The husbands, all employed by the government, felt their wives did not need to work and should spend their time at home.

Jeen K. (60) sells a variety of food from her house rather than traveling to the market place. Although she feels she is too old to be traveling back and forth to the market, she is open for business seven days a week. Buying oil and other available goods in large quantities from the formal sector and reselling in smaller units is an important part of Jeen's activities. Besides the selling of cooking oil and canned goods, peanuts and guinea pigs are standard sale items. The raising and selling of guinea pigs, which sell for 3,000 CFA each, is her most profitable single item. Unlike the other three women, Jeen has avoided buying a business license and is the only one of the three who has not had any formal primary education. Small real estate holdings in the quartier provide another source of income via their monthly rental. Health problems are a major concern in her life and she sees no other plans for her future but food selling.

At age 26, Rose A. is unmarried and works as a cleaning domestic and sells at the market. Three days a week are spent as a charwoman in a business office. The guaranteed income from this job has provided economic stability for the first time in her life. Evenings and other days of the week are spent buying products and goods for resale at the Mt'Bouet market. Having access to a refrigerator has allowed

Rose to purchase extra quantities of fish from the local fisherman at bulk prices. Fish that previously spoiled are now kept fresh longer, which has meant a better profit on her investment. Prior to her domestic job, Rose sold cooked foods each morning and evening. The combination of long hours, lost funds accrued by regular customers buying on credit, and elaborate preparation time all made her domestic position more appealing.

In the future Rose would like to work in a small shop or have a business at a permanent location. She realizes to do this would require more academic skills than she has, but she has started informal lessons in simple accounting practices.

Ginette C. spends her day preparing and purchasing food to sell at the market. Besides food selling, she likes to sew and sells the items she makes to neighbors and friends. Even though Ginette sells daily at the market, none of her handicrafts are taken or displayed at her booth. Although she has no idea where she would learn to weave in Libreville, it is something she would like to try in the future. At age 22 Ginette is the only one of the four with a child and the only one without a major health concern.

The youngest of the four, Marie (19), like Ginette, spends all her time either preparing or selling food at the market. She has purchased a business license and rents a table in the covered section of the market next to her sister. Marie is proud of the fact that she has a table in this

area of the market and sees no other plans for her future outside of selling.

Production Component

Small-scale production can be found throughout Libreville and forms the other side of the informal sector. Artisans utilizing manual skills, local resources and functional surroundings provide and renovate products used by the community. Examining these local entrepreneurs in regard to the (1) development of the I.W.S., (2) categories of skills provided, and (3) acquisition of skills, provides a view of this sector's activities.

The activities within the informal sector in Libreville, which is male oriented, are both linked to and affected by the developmental structures and goods processed by the formal sector. At their present levels of growth, the informal often presents a reflected image of the formal sector.

Traditionally, in Gabonese rural society goods that people could not produce were obtained from local handicraft artisans through bartering. This system of product development and transfer began to wane with the discovery of Gabon by the Portuguese and only began to accelerate during the French colonial period. The major economic outcome of Gabon's exploration has been an expanded import/export market and a demographic shift from rural to urban centers.

Gabonese artisans in the traditional craft sector found difficulty in adapting their traditional skills due to (1)

their own low skill levels, (2) the rapid shift from rural to urban communities, and (3) the limited number of artisans within the craft sector. Another element affecting not only the transition but the continuation of practiced skills was the decline in the religious significance attached to craft production. Skills that were traditionally used to produce items focusing on tribal life now were sought to produce objects for tourism or products that the artisan could not relate with. The results of these events have produced a decrease in Gabonese art forms, a condition the government has tried to improve via the development of the Ministry of Culture and Art.

Practitioners of technical skills from outside Gabon, viewing an expanding employment market, immigrated from West and Central Africa to practice their skills. This immigration from other Francophone countries, bringing with it tools and skills, moved into the growing urban center and established the informal sector.

Gabon's growing dependency on imported goods for the past decade culminated in a financial crisis during 1977-1978. Restructuring its overheated economy, Gabon began to deal with the issue of freeing itself from outside debt, and within three years made remarkable progress, ("Gabon", 1981). These events produced a nation with a European urban consumer outlook which is constantly stimulated by imported movies, television, and a very visible expatriate community. The impetus created by these elements coupled with the country's

growing financial strength has generated an expanding market for imports. The utilization of these imports has been fueled by Gabonese and expatriates with the resources to purchase cars, appliances, furniture, and other items. The effects of this wealth and buying power has made more visible the gap between the various economic strata within Gabon, and the prestige attached to white-collared employment.

Located throughout Libreville, businesses in the informal sector tend to reflect activities in the following categories: (1) transport, (2) production of furniture, (3) production of clothing, (4) agricultural production, and (5) repair and maintenance. Within these categories are provided the goods and services stimulated by the economic ripples of the formal sector listed in Table II.

The operation of small-scale enterprises is distinguished by the Government according to the operator's nationality. Gabonese entrepreneurs are provided financial, technical and promotional assistance by a variety of small agencies spread throughout the Government. The strength of this support is often limited by the lack of coordination among the different agencies. Officially the Government's position on small-businesses is that they are not as important to Gabon as to other African countries, a position based on the idea that Gabonese are not naturally inclined to be entrepreneurs or engage in activities that involve financial risk taking. The Government further contends that Gabonese lack these business experiences and are better suited to

TABLE II
CATEGORIES OF PRODUCTION
ACTIVITIES WITHIN THE
INFORMAL WORKING SECTOR

Production of Clothing

Tailor*
Seamstress
Structural Mold Maker*

Agricultural Production

Farmer
Bananas
Peppers
Manioc (leaves, tubers)

General Production

Furniture*
Wood Worker
Welder
Boat Builder*
Shoemaker*
Fisherman*
Commercial Cook

Symbol: * Male-dominated

assume the managerial responsibilities of established businesses (Plan Interiminaire de Development E' Conomique et Social 1980- 1981, 1980). The method to help facilitate movement into positions of authority, by displacing expatriate staff, is accomplished through the process of Gabonization.

Non-Gabonese entrepreneurs, who compose the majority of small business operators, are offered no assistance by any of the Government's agencies. A concern of these non-Gabonese business operators is the fact that a Gabonese manager could be appointed to any of their businesses if they were to become too financially successful.

Products manufactured within the informal sector are frequently made from recycled goods, but most often are produced by using new materials. In either situation the product will reflect a finished quality, rather than the rough and unfinished items associated with this sector in East Africa (King, 1977). Although the cost for new materials may be high, the selling price charged by local artisans is still below comparable imported items. The products are not only well finished, but in many instances, have begun to reflect European designs.

The structures of these small-scale enterprises do not lend themselves to mass producing goods or stock-piling supplies due to the artisans limited working capital. Commissioned work is typical in this sector and can be found among tailors, canoe builders, metal workers, and furniture makers

to name a few. The practice of commissioning an item before construction and the negotiation of sale price reflects the autonomy of the artisan and flexibility within the sector.

A variable in both the formal and informal sectors is the lack of available manpower in Gabon. Technical and skill instruction is generated through three independent systems operating in isolation of each other. The three systems presently developing skilled manpower include: informal apprenticeship, private industrial in-plant training, and the state controlled formal education system.

The informal apprenticeship system in Gabon differs from other apprenticeship systems in Africa. Learners who are interested in working for a skilled artisan (patron) in order to learn a trade, are not distinguished in Gabon from regular non-skilled labor. This non-designation of apprentices by the government allows all unskilled workers to receive the minimum wage of 40,000 CFA per month. The combination of receiving a wage, while gaining instruction, is the reverse of other African countries where the apprentice pays for his instruction (King, 1977). The possibility of learning a skill and receiving a wage has made immigration appealing to many young men from West and Central Africa. This appeal has created even greater interest through the skilled labor shortage fueled by the non-participation of Gabonese in the informal apprenticeship process.

The nationality of apprentices and artisans varies within this sector in Libreville but tend to be predominated

by Senegalese, Cameroonians, and Nigerians. Many of the workers attracted to apprenticeships are extended members of the patron's family, who may plan to return home and begin their own businesses following their apprenticeship. Other options apprentices have followed include (1) continuing to work with the patron as a partner, (2) starting a business within Gabon, either in Libreville or another city, or (3) working as a craftsman for another artisan.

The number of apprentices attached to a patron range from one to four. The number is often established by the amount of work available and the technical level of the skills practiced. Patrons attempt to keep a balance of skilled manpower by taking into account that the longer the apprenticeship and the more technical the skills, the more difficult it would be to replace an apprentice who may decide to terminate his employment. Having a few apprentices at different skill levels does not have as direct an effect on production if some decided to leave or had to be let go.

Providing a weekly salary requires artisans to have work for their apprentices. Lack of work means unemployed periods, and it is not uncommon for apprentices to work for several artisans over a period of a year. A number of interrupted employments could mean that a limited apprenticeship could stretch onto two or more years. Work/learning relationships are carried out without any formal contracts or official recognition of skills mastered. An apprentice may leave the employment of the patron whenever he wishes. By

mutual agreement, the patron and the apprentice decide when the apprenticeship has been completed, no certification or diploma is received, nor are the terms of the work/learning relationship recognized by the formal educational system. Rather than producing a detrimental effect in seeking employment, the informal apprenticeship process tends to be viewed, by other artisans, as a rite-of-passage jointly shared and is the badge of the practicing skilled artisan. Apprentices who start their own business know that they will be evaluated on the products they produce, and those who advertise as an artisan will be judged on the level of their skills. These elements add authenticity to the training apprentices receive and the way in which artisans advertise their skills.

Furniture Making: Case Study II

Examining the individual artisan and his work provides insight into the activities and pressures affecting small-scale enterprises in the informal working sector.

Aiba K's furniture workshop is located behind the Akebe market on an unpaved road among a cluster of other small businesses. The availability of different types of woods in Gabon has made wooden furniture making an activity that can be found throughout the different quarters in Libreville. Typical items made from belinga, a light yellow textured wood, include chairs, tables, beds, and couches or speciality items made from woods like ebony, kevazingo or from any of the three hundred other wood varieties found in Gabon.

Aiba K., a Senegalese in his middle fifties, learned his trade as did others in his family through a self-imposed apprenticeship. Following his training, he immigrated to Gabon about 1945 and opened a small woodworking shop in Libreville. Today's shop located in the Akebe quartier reflects twenty-five years of furniture making in the city.

The shop is a large rectangular room with an electric table saw on one side. Workbenches and lumber fill the remaining corners, with the center of the room used for construction and furniture assembly. The building itself is typically built of wood with an aluminum corrugated roof and a cement floor, features which allow work to continue during both the wet and dry seasons. Behind the shop, but connected to the building, is the family's living quarters.

The shop's three apprentices are represented by Aiba's son, a cousin from Senegal and a Gabonese student who works at the shop but lives with his own family. The length of time for apprenticeships varies depending on how quickly a worker can master his skills and if there is enough work to keep apprentices employed. Apprentices who feel they are ready to strike out on their own can do so at any time. Most have spent their full two years with Aiba.

These learners, officially classified as unskilled laborers, receive the official minimum wage of 40,000 CFA per month. The three young apprentices between the ages of fourteen and seventeen are given instruction in basic math, rule reading, use of tools and general business operations.

Working a ten-hour day five-and-a-half days a week without any break in employment, provides the possibility of gaining over five-thousand hours of apprenticeship training working for Aiba over a two-year period--a working arrangement which is not atypical for Aiba's apprentices.

To Aiba the only practical way to learn a trade is from a practicing master or patron if you plan to earn a living demonstrating your skills. Workers who successfully finish by staying as long as Aiba feels they should are ready to work in either their own business or along side an established artisan. Aiba's concern over the qualifications of his workers is reflected by his reputation as an artisan. The recognition of the informal apprenticeship process in Africa has made it an accepted avenue for becoming an artisan.

Reflecting on formally learned technical skills gained through the educational system, Aiba believes that learning a skill in school is just that, to learn, not to practice it daily. The reward for this type of skill mastery is the certificate of completion, or being passed on to the next level, rather than opening your own business.

Of the three apprentices working for Aiba, his son will probably stay in Gabon, while his cousin will return to Senegal. Aiba emphasized that too often Gabonese apprentices learn how to use tools but most never practice the skills they learn. "Most want a car and a good paying government job rather than to work with their hands, all of their

lives." Whatever their backgrounds and previous skills, the workers are observed and evaluated for six months before Aiba decides if they are suitable for the time and financial investment involved in a apprenticeship.

Some major expenses for Aiba include the cost of tools, both hand and electric, a business license and the wages for his workers. Besides use of the table saw and electric drill, all other work is done by hand. Large rough lumber is often carried into the yard and cut into smaller workable pieces using a variety of hand saws.

Most of Aiba's work is commissioned before it is begun. This practice makes the outlay of funds for wood and supplies non-speculative. Commissioned work usually reflects the individuality of the consumer in the size of the project, the type of wood used and the furniture style, which is becoming more and more European. This interest in having local artisans duplicate imported furniture styles has prompted Aiba to begin looking for manufactured molds which could be covered by foam and cloth. The results of this type of construction would be to produce European designed furniture in Libreville at much less than the imported prices charged by the formal sector. When Aiba was asked why he would want to give up manufacturing his fine wooden furniture for large foam and fabric covered pieces, he shook his head and replied, "that is what the Gabonese want to buy."

Informal Apprenticeship Learning Process

The informal apprenticeship process tends to contain characteristics of traditional learning, andragogy and pedagogy. These characteristics when applied by artisans in conveying occupational skills are closer in orientation to andragogy and traditional learning than pedagogy. The comparison of these learning processes is outlined in Table III.

The catalyst within the informal apprenticeship process, which is also a major component in traditional learning, is the emphasis placed on values, culture and life style. The ability to work together in a limited physical space, sharing tools and possibly living within the same house, requires compatibility. The results of these elements have prompted most apprentices to work for artisans of the same nationality, a similar cultural identity, or the same family.

A patron assessing the qualities of a new worker allows a specific amount of time to elapse before the status of the worker changes to apprentice in the patron's mind. The accuracy of the artisan's assessment becomes critical should a worker turned apprentice decide to leave or terminate employment in the middle of a project. This sudden loss of an employee could result in the lack of commissions, schedule delays, or difficulty in attempting to find a new employee at the same technical skill.

To the worker looking for an apprenticeship, the assessment process is equally important. Attempting to gauge the artisan's technical skill abilities, or whether the business

TABLE III

A COMPARISON OF THE DESIGN OF PEDAGOGY AND ANDRAGOGY
IN RELATIONSHIP TO TRADITIONAL LEARNING AND
THE INFORMAL APPRENTICESHIP PROCESS

	Pedagogy *	Andragogy *	Traditional ** Learning	Informal Apprenticeship
Climate	Authority Oriented, Formal, Competitive	Mutuality, Respectful, Informal Collaborative	Respectful Informal Global	Mutuality, Informal Respectful Collaborative
Planning	By Teacher	Mechanism For Mutual Planning	Elder / Chief	Primary - Patron Secondary - Apprentice Mutuality In Application
Diagnosis Of Need	By Teacher	Mutual Self-Diagnosis	Established By Tradition	Primary - Patron Secondary - Apprentice Mutuality In Application via negotiation
Formulation Of Objectives	By Teacher	Mutual Negotiation	Emphasés On Values, Culture. Historically Developed	Primary - Patron Secondary - Apprentice Mutuality In Application via Negotiation
Design	Logic Of The Subject Matter, Content Units	Sequenced In Terms Of Rediness, Problem Units	Sequenced In Terms Of Readiness, Pragmatic	Sequenced In Terms Of Readiness, Pragmatic
Activities	Transmittal Techniques	Experiential Techniques, Inquiry	Experiential	Experiential Short Cycle
Evaluation	By Teacher	Mutual Re-diagnosis Of Needs	Community Diagnosis Of Needs, Individual Elder	Standards By Product Design Mutual Measurement Of Progress. Demonstration

Sources: * Knowles (1978).

** Ki-Zerbo (1974).

will be prosperous enough to support the length of an apprenticeship, are issues that must be weighed early in the work relationship.

The atmosphere and learning environment created by the elements within the assessment process and the social systems of both individuals tend to produce a working relationship that is collaborative and respectful. Relationships are often reinforced by instruction provided in African rather than European languages. Each party is aware of the distinction between employer and employee and the need that each has to rely on the other to make the learning/ production process work. The fact that the work relationship can be terminated at any time by either party adds to the participatory atmosphere of this learning situation.

Subject matter is interwoven and shaped by the shop's daily work schedule. Demonstration in the use of tools is followed by application on commissioned projects. Introduction of number skills is presented in conjunction with skill-related tasks. The repetitiveness of production insures that each newly mastered task will be reinforced. A more abstract understanding of each skill is demonstrated by apprentices with seniority providing instruction and supervision to other apprentices or workers.

Motivation to be independent and known as an artisan generates interest in trying to gain as much information as possible in the shortest amount of time. The patron, aware of the apprentice's aims, provides just enough instruction

to keep the apprentice from becoming bored but not enough to facilitate the early termination of the apprenticeship. The results of these concerns produce short-and long-term training goals by both the artisan and the apprentice, each developing independent goals that become merged and adjusted to conform to the processing of daily skill tasks.

When compared to the formal education system, the scope of the informal apprenticeship process develops low level technical skills over a short time at no cost to the Government. The level of skill that the apprentice can obtain is determined by individual abilities, competencies of the artisan, and technical quality of the business's product. In Gabon a non-Gabonese artisan who wants to upgrade existing skills will seek out a fellow patron for needed information and gain the knowledge via an informal learning process.

Formal Education

Technical education gained under the formal education system provides a sharp contrast to the informal apprenticeship process and private industrial training. Built on the French education model the emphasis is on the academic rather than the implementation of work skills as emphasized in the informal apprenticeship.

An incentive for continuing education in Gabon is the financial support provided to Gabonese students who progress beyond the six years of primary school. Students may continue to receive tuition-paid education plus financial support

throughout their years of study as long as they successfully complete their various examinations. Support of successful students often extends to scholarships for continued studies in France. The uniqueness of this educational support in Gabon is contrasted in neighboring Cameroon where students must personally finance their education past the primary level.

Technical programs are provided under the Ministry of Education and offered through eleven technical schools (L'Enseignement Technique Et Professionel, 1979). Other types of technical or short term training programs are offered under almost every ministry within the government. A sampling of the different types of technical subjects offered by the Ministry of Education are listed in Table IV.

The attainment of white-collar employment in either the government or private industry is often determined by the amount of education received rather than by the level of technical competence. One effect of these forces has been the high number of upper-level managers and administrators produced by the education system. Conversely, the system is not producing enough skilled practicing Gabonese technicians (Employment, Income and Equity, 1977). Reacting to the criticism that the education system is not structured to meet the manpower needs of Gabon, the government is attempting specialized training in such non-traditional skills as rope making, butchering, etc. ("Formation Professionel", 1981). Other short-term training programs outside the formal system

TABLE IV

SAMPLING OF TECHNICAL CENTERS IN GABON

Location	Institution	Program Type	Technical Offerings
Libreville	Lycee Technique	Industrial Commerical	Auto Mechanics, Metals, Accounting, Masonry, Cabinet-Making, Woodworking, Electrical, Secty.
Port Gentil	Lycee Technique	Industrial	Machinist, Auto Mechanics
Moanda	Lycee Technique	Industrial	Machinist, Auto Mechanics
Port Gentil	Ecole National de Commerce	Commerical	Administration / Secretarial, Accounting, Commerical Services.
Libreville	College d'enseignement Technical Industrial	Industrial	Machinist, Metals, Electricity, Masonry
Moanda	College d'enseignement Technical Industrial	Industrial	Machinest, Auto Mechanics
Oyem	College d'enseignement Technical Industrial	Industrial	Machinist, Auto Mechanics, Construction/
Tchibanga	College d'enseignement Technique Industrial	Industrial	Construction / Wood
Mouila	College d'enseignement Commerical	Commerical	Stenography, Typing, Accounting / Bookkeeping
Franceville	College d'enseignement Commerical	Commerical	Stenography, Typing, Accounting, / Bookkeeping
Fougamou	Centre d'apprentissage	Industrial	Construction / Wood, Masonry, Welding, Auto Mechanics

TABLE IV (Continued)

Location	Institution	Program Type	Technical Offerings
Libreville	Center for Accelerated Vocational Training	Industrial nine months	Stone-masonry, reinforced, Auto Mechanics, Carpentry, Electricity, Electro-Mechanics, Refrigeration
Port Gentil	Center for Accelerated Vocational Training	Industrial nine months	Metals, Auto Mechanics, Machinist,

Source: L'Enseignement Technique Et Professionnel (1979).

have been developed to gain the interest of Gabonese to become practicing artisans.

Technical programs have a high student attrition rate and on-going problems with supplies and equipment (King, 1977). Schools can be found in every major city in Gabon and adhere to traditional French standards--standards that make the system compatible with other Francophone countries and France. The shortage of Gabonese technical teachers has prompted an influx of instructors from other African and European countries (Technical Education and Vocational Training in Central Africa, 1970). The learning process for instruction is basic pedagogy with most programs offered in some type of institutional setting. Instructional methods include classroom theory and shop experience with projects assigned for theory application. There is no formal relationship between the formal education system and the informal apprenticeship process. A system for assessing employment needs of private industry and then applying that information toward the development of technical workers has been carried out at a minimal level by the Ministry of Planning (Technical Education and Vocational Training in Central Africa, 1970).

Private Industry and Technical Training

Private industries in Libreville provide training in various technical skills. Almost all employees in this sector are male. These firms train their workers for

specific skill-related jobs according to the firms employment needs. Selection is generally not based on formal certification or education but rather on the individuals ability to learn and perform a specific job. Firms attempt to recruit and employ as many Gabonese as possible and are encouraged under the 'Gabonization' of the economy. The difficulty in finding enough Gabonese to fill skill-related positions has created employment opportunities for other nationalities living in Gabon.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

This study was an examination of the viable alternatives for skill acquisition within the informal working sector and the acceptability of the resources for occupational training in Libreville, Gabon's capital.

The informal working sector in Africa has been described as the continent's largest employment sector (Small Enterprises in African Development, 1979). This statement can be applied to this sector's varied labor intensive activities in Libreville. To comprehend the scope of these activities required examining them in context within the sector's service and production components. The results verified the interrelationship of occupational issues with local economic, political and cultural pressures. The effects of these issues are important elements in understanding (1) ethnic and cultural make-up of Libreville's artisans, (2) types of occupations and skills practiced, and (3) future potential of the informal sector as an economic and educational resource.

The methodology employed to obtain information from the informal sector relied heavily on the interview and observation methods. Interviews with artisans were aided by a

survey instrument prepared and field tested in Gabon. Additional data was acquired from statistical documentation obtained from local and international sources.

Findings and Conclusions

Specific findings in regard to the development, acquisition, and application of occupational skills are as follows:

1. The current technical education system, based on an institutionalized pedagogic model, is not meeting the total manpower needs of Gabon.

2. Formal technical education is the sole recognized conduit for occupational studies.

3. The informal working sector is a viable skill training resource that could be utilized independently or in conjunction with the formal education system and private industry.

4. Information transfer within the informal apprenticeship is conveyed via the use of occupational skills in conjunction with an andragogical learning process.

5. A major force affecting Gabonese skilled manpower is the notion that labor intensive activities and education do not mix.

6. The growing economic and cultural gap between management and labor, represented by Gabonese and other Africans, will be an important element in future industrial expansion.

Conclusions

Skill acquisition in Gabon is becoming polarized due to the exclusion of various sectors and interest groups from the education process. The exclusion of the industrial and informal working sectors as part of the national technical education plan has fostered a limited range of available options for learners of occupational skills. The issues creating this isolation are manifested in the following conclusions:

1. The products and services provided by artisans represents an important aspect in Libreville's economy.
2. The development of the informal sector in Libreville has been stymied by the Government's stance of providing financial and technical assistance only to Gabonese small-scale enterprises.
3. Most of Libreville's practicing artisans are non-Gabonese who have immigrated to Gabon due to Gabon's monetary stability.
4. Formal technical education continues to be the principal conduit for Gabonese seeking a technical education. Its strong institutional characteristics have produced and influenced the development of Gabon's administrative elite without negating colonial concepts associated with white-collar employment. These concepts continue to be a major motivational force in the expanding Gabonese economy.
5. Skill acquisition for most African non-Gabonese is provided via the informal apprenticeship process.
6. In contrast to the pedagogic model used in formal

technical education, the informal sector employs a learning process that incorporates an andragogic design.

7. The lack of information about technical competency levels in relationship to product development presents obstacles in evaluating technical needs of artisans.

8. Skill levels within the informal sector are of a low manual nature but vary in regard to the degree of applied technology. Production categories tend to correspond to medium scale workshops.

9. External pressures exerted through business licenses, high cost of tools and labor shortages influence levels of technology practiced within the informal sector.

10. The nonrecognition of the informal sector's role in skill development by the formal education system has tended to underrate the technical skills of artisans, and foster the concept that in order for technical skills to be formally recognized they need to be learned in an institutional setting.

Recommendations

It is recommended:

1. That the various agencies presently established to encourage Gabonese-owned small businesses be reorganized to address the needs of all businesses within the informal sector regardless of the entrepreneurs nationality.

2. That the cost of business licenses be liberalized.

3. That incentives be formulated to encourage the

industrial sector to subcontract with small-scale enterprises.

4. That a talent bank of artisans be developed who would be interested in providing occupational instruction within the community.

5. That artisans be offered tax incentives for accepting adult apprentices.

6. That a greater range of opportunities be created for women in the manufacturing sides of the formal and informal sectors.

7. That a program be formulated with industry for recycling tools, equipment and materials to the informal sector.

8. That the upgrading of technical skills be developed for informal trained artisans and apprentices by utilizing the joint resources of the informal, formal, and educational sectors.

It is recommended that the formal education system:

9. Consider the use of the andragogic learning process in regard to teacher education and occupational instruction.

10. Develop the use of small-scale enterprises as on-the-job training sites.

11. Examine the currently used curriculum and certifications in regard to the existing technical needs of Gabon.

12. Consider developing a work-study program with entrepreneurs that would seek to narrow the cultural gap between blue- and white-collar employment.

Future Study

It is suggested that this study serve as an initial step for future research on the learning processes associated with skill mastery through the informal apprenticeship; description of the informal sector and the ways in which practitioners of skills are trained outside the formal system be recognized and this information utilized in Gabon's developmental planning; also that studies of the informal sector seek to determine the relationship of culture to the uses and design of products and tools.

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APPENDIX A

INTERVIEW GUIDE IN ENGLISH AND FRENCH

Name: _____
optional

Age: _____ / Sex: _____

(First Visit) Date: _____

1.1 When did you start? (i.e., furniture making) _____

1.2 How old/ tall were you when you started (1.1)? _____

1.3 How did you learn (1.1)? _____

1.4 Was your father a (1.1)? _____ If no, who
helped you learn (1.1)? _____

1.5 Why did they help you? Did you pay them money or
work for them? _____

1.6 Did you go to school to learn (1.1)? _____

1.7 Why did you decide to be a (1.1)? _____

1.8 What time do you come to work in the morning? _____
_____ What time do you leave in the
evening? _____

1.9 Do you work everyday? _____

(Second Visit) Date: _____

2.1 What other work do you do? _____

2.2 Do you sell anything? _____

2.3 This section will be based on the interviewers observations. The interviewer needs to observe the work environment and the on going activities.

(Third Visit) Date:

3.1 What work would you like to do besides what you do now? _____

3.2 Where would you go to learn this work? _____

3.3 Where do people learn (3.1) in Libreville? _____

3.4 Do you know any schools or shop where you could learn (3.1)? _____

3.5 Do you have any friends or family who are (3.1)? _____

3.6 Would it be easy for you to learn (3.1)? _____

3.7 Do you have enough time in you life to learn (3.1)?

OTHER: General comments about the nature of the interview,
the interviewee's reaction to questions, etc.

Initials/ Interviewer _____

Nom: _____

Age: _____ / Sexe: _____

(Premiere Visite) Date: _____

1.1 Quand est-ce que vous avez commenc e? (i.e.,
menuiserie) _____

1.2 A quel age avez vous commenc e (1.1)? _____

1.3 Comment est-ce que vous avez appris (1.1)? _____

1.4 Votre p re,  tait-il un (1.1)? _____ (si non,
qui vous a aider   apprendre (1.1)? _____

1.5 Pourquoi vous ont-ils aid s? Est-ce que vous les
avez payez ou travaill  pour eux? _____

1.6 Est-ce que vous avez appris   l' cole (1.1)? _____

1.7 Pourquoi avez vous decid  d'etre un (1.1)? _____

1.8 A quelle heure commencez-vous le travail le matin?
_____ A quelle heure finissez vous le
soir? _____

1.9 Travaillez-vous tous les jours? _____

(Seconde Visite) Date: _____

2.1 Quel autre travail faites-vous? _____

2.2 Vendez-vous quelque chose? _____

2.3 Observations: L'interrogateur doit observer le milieu du travail et les activités qui se déroulent.

(Troisième Visite) Date:

3.1 Quel autre travail aimeriez-vous faire? _____

3.2 Où est-ce que vous pourriez aller pour l'apprendre?

3.3 Où est-ce qu'on apprend (3.1) à Libreville? _____

3.4 Connaissez-vous des écoles ou des ateliers où vous pourriez apprendre (3.1)? _____

3.5 Avez-vous des amis ou des parents qui sont (3.1)?

3.6 Serait-il facile de l'apprendre? _____

3.7 Avez vous le temps de l'apprendre (3.1)? _____

AUTRE: Notes sur l'atmosphere de l'interview, reactions aux questions, etc.

Initials/ Interviewer _____

APPENDIX B
HISTORICAL AND STATISTICAL SURVEY
OF GABON

Introduction

Social, historical and economic events are critical elements in understanding contemporary Gabon's various sectors. Examining aspects of these elements provides a framework for analyzing the informal sector relationship to Gabonese society.

Geography

The Republic of Gabon is located on the Equator and politically bounded on the North by Cameroon and Equatorial Guinea, the South and East by The People's Republic of the Congo and the Atlantic Ocean to the West. Two major seasons, wet and dry, affect all of Gabon's 102,000 square miles of which 85% is covered by rain forest.

Demographics

Population figures ranging from 500,000 to 1,300,000 people attest to Gabon's low population and current manpower shortage. The movement from rural to urban center during the past decade has produced three towns: Libreville (capital), 241,400; Port-Gentil 77,611; and Lambarene, 22,682.

Political History

Formally a French colony, Gabon gained its independence in 1960. Shortly after independence its first President Leon M'Ba was deposed in a military coup, but through French military intervention was returned to the presidency.

Gabon's current second President El Hadji Omar Bongo succeeded to the President in 1968 and was reelected in 1973. He has taken a strong stance against descent and political protest within the country.

Two major internal confrontations with citizen of neighboring countries has resulted in the members of those countries leaving Gabon. In 1978 such a confrontataion resulted in the expulsion of 6000 Beninese and in 1981 10,000 Cameroonians. The exodus of both groups were marred by sharp outbreaks of violence.

Gabon has continually had strong ties with France, its principal trading partner. A similar relationship has been established with the United States which is second only to France in import and export volume. Closer ties with the United States has been encouraged by President Bong's visit with President Reagan in June, 1981. Other trading partners include Great Britain, China, Rumania, Yugoslavia, Japan, South Korea, Brazil and Argentina.

Economic Affairs

Until 1960 Gabon's economy was tied chiefly to the export of forestry products. Utilizing the world largest plywood factory and an abundance of Okoume lumber has helped establish Gabon's international reputation for plywood and veneers.

Sub-soil extraction of manganese, iron, gold, uranium, and oil have replaced forestry products as the country's

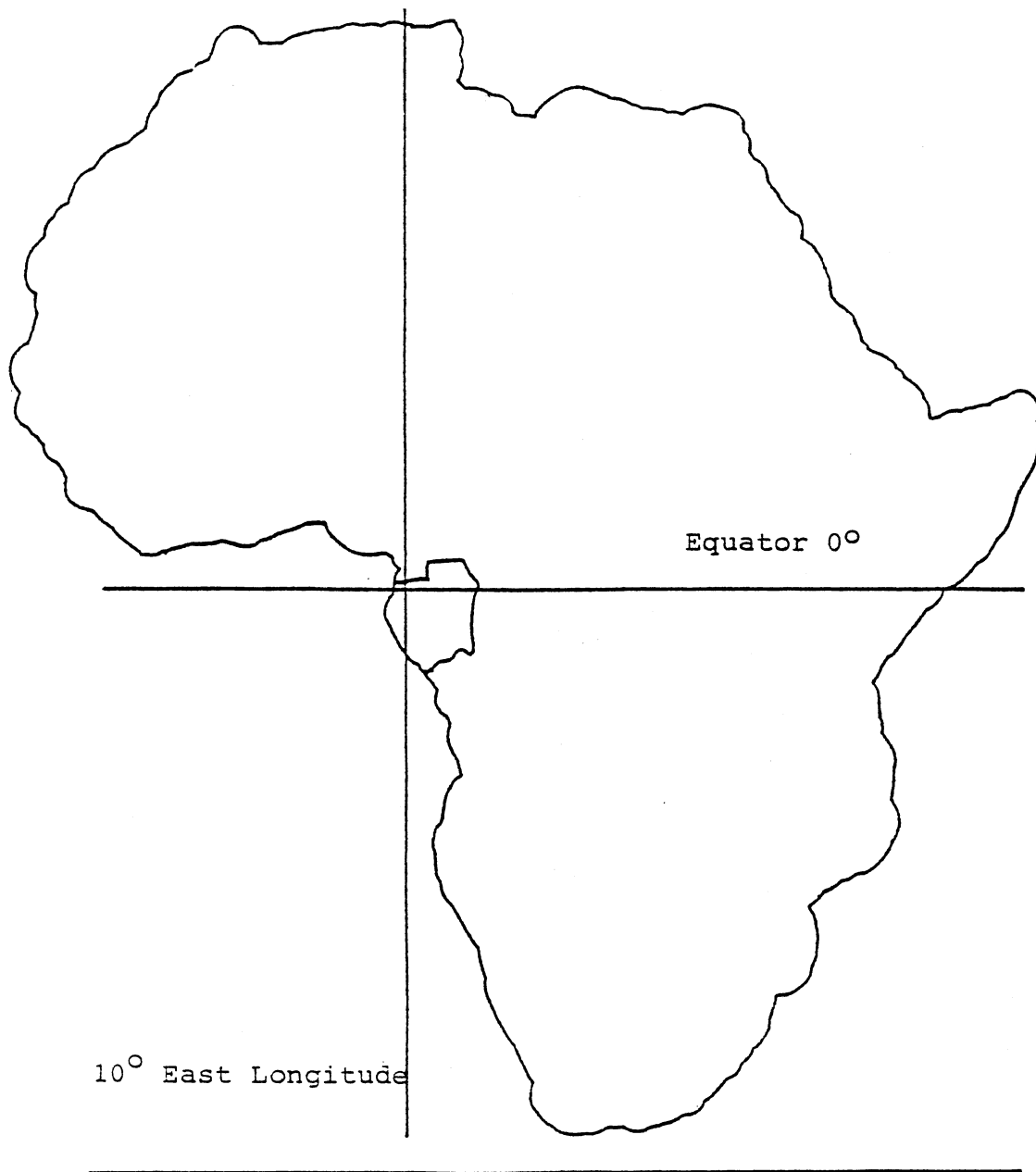
leading economic resources. Gabon's oil production has placed it fourth among African producers and secured its place as a member of the Organization of Petroleum Exporting Countries (OPEC). The wealth of these natural resources has gained it the reputation as the richest country South of the Sahara.

The current economic emphasis is the development of middle-sized enterprises in the manufacturing of products utilizing local resources. To meet this goal Gabon has encouraged international companies to invest in food, textile, chemical and refining oriented process industries.

One aspect in this development role is the key involvement of Gabonese administrative personnel. Formulated under the term "Gabonization" this concept calls for the replacement of expatriate staff by Gabonese in positions of authority. An effect of this has already begun to be felt in the absence of Gabonese entrepreneurs from the private sector.

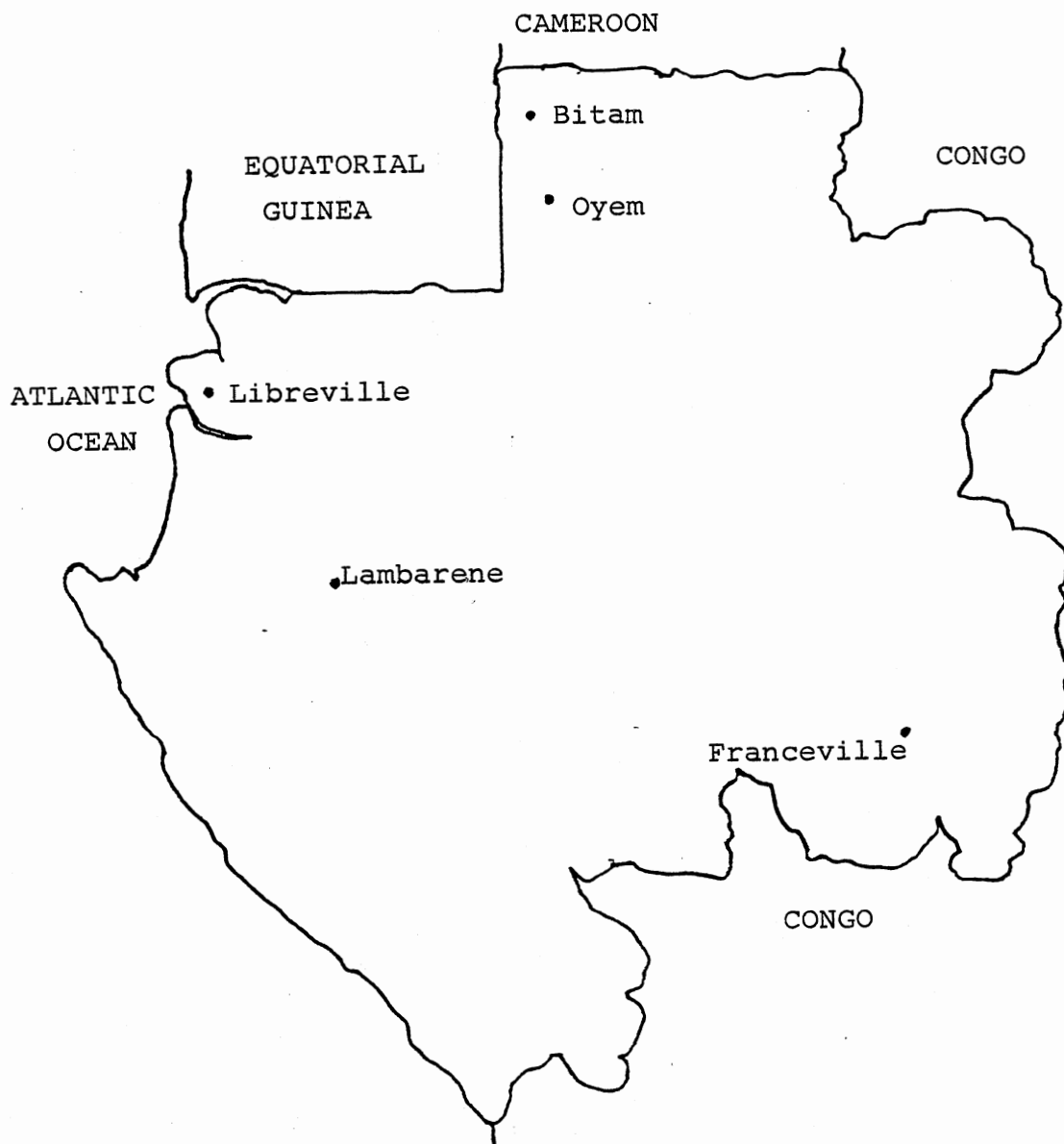
At this stage in Gabon's economic development the formal and informal sectors exist in an innocuous relationship to each other. Comprising only 5% of the Gross National Product (G.N.P.), the industrial sector has been described as Gabon's economic area of weakness. Addressing this area of concern the government has established (1) a national investment bank, (2) a liberal investment code, and (3) will be personally investing 41% in 3.9 billion dollars worth of industrial activity over the next three years. The emphasis to attract foreign capital and investments has over shadowed

the prospects of many small-scaled enterprises presently in operation.



Source: Hammond World Atlas (1980)

Figure 2. Geographic Relationship of Gabon to Africa



Source: Hammond World Atlas (1980)

Figure 3. Gabon and Surrounding Countries

TABLE V
AREA AND POPULATION

Area (sq. km.)	Population (1972 census)
267,000	1,027,529*

Source: The Europa Yearbook
(1981)

*The United Nations gives the latest official estimate of the population as 500,000 at July 1st, 1970. Europe Outremer gives an estimate of 1,300,000 for 1978.

TABLE VI
PRINCIPAL TOWNS

Population(1975)	
Libreville (capital)	251,400
Port-Gentil	77,611
Lambarene	22,682

Source: The Europa Yearbook
(1981)

TABLE VII

EMPLOYMENT
(1972)

Agriculture	267,000
Forestry, Mining and Construction	60,000
Commerce and Industry	8,200
Civil Service	8,000
Other (inc. Military, Clergy, Students)	38,200

Source: The Europa Yearbook (1981)

TABLE VIII

PRINCIPAL CROPS
('000 metric
tons)

	1977	1978	1979
Maize	9	9	0
Rice (paddy)	2	1	0
Cassava (Manioc)	104	107	110
Other roots and tubers	111	147	161
Vegetables and melons	19	20	20
Bananas	8	8	8
Plantains	63	63	63
Cocoa beans	3	4	4
Groundnuts (in shell)	6	6	7
Sugar cane	53	71	72

Source: The Europa Yearbook (1981)

TABLE IX
LIVESTOCK
('000 head)

	1977	1978	1979
Cattle	3	3	3
Pigs	6	6	6
Sheep	89	96	100
Goats	74	89	90
Poultry	1,307	1,698	1,703

Source: The Europa Yearbook (1981)

TABLE X
PETROLEUM PRODUCTS
('000 metric tons)

	1976	1977	1978
Liquefied petroleum gas	5	6	7
Motor spirit (petrol)*	134	116	183
Kerosene*	24	23	35
Jet fuel*	81	64	100
Distillate fuel oils	1,081	1,209	929
Residual fuel oil	68	756	116

* '000 cubic metres.

Source: The Europa Yearbook (1981)

TABLE XI
 PRINCIPAL COMMODITIES
 (million francs CFA)

IMPORTS	1976	1977	1978
Electrical machinery and appliances	29,883.3	37,280.0	26,579.5
Metals and metal products	29,012.0	33,312.2	21,227.5
Transport equipment	15,390.6	33,759.7	15,746.0
Chemical products	8,033.9	9,409.1	7,626.8
Textiles	4,496.3	5,646.3	5,854.8
Beverages	3,274.5	4,551.7	4,964.7
Plastics and rubber	3,289.5	4,432.2	4,179.4
Meat and fish	883.5	3,034.9	3,673.3
Paper	1,310.6	2,834.5	1,681.3
Cereals and flour	2,402.1	2,483.9	3,041.5
Milk, eggs and honey	1,158.4	2,051.9	2,746.1
Cement	2,946.7	4,792.7	n.a.
Petroleum products	1,114.3	3,814.1	11,317.4
TOTAL (inc. others)	120,237.5	176,000.5	139,174.4

Source: The Europa Yearbook (1981)

TABLE XII
 ROAD TRAFFIC
 (Motor vehicles in use)

	1968	1969	1970
Cars	5,230	5,921	7,100
Buses	134	168	188
Goods Vehicles	4,490	4,936	5,800

Source: The Europa Yearbook (1981)

TABLE XIII
 PRINCIPAL TRADING PARTNERS
 (million francs CFA)

IMPORTS	1977	1978
Belgium/ Luxembourg	8,457	4,442
France	120,013	76,983
Germany, Fed. Republic	4,278	5,982
Italy	7,857	4,189
Japan	7,310	5,136
Netherlands	3,497	2,705
United Kingdom	1,815	4,160
U.S.A.	5,714	7,998
TOTAL (incl. others)	176,001	139,174

EXPORTS	1977	1978
Argentina	17,889	27,715
Brazil	28,710	21,013
Canada	40,941	6,239
Chile	11,970	12,861
France	70,487	62,855
Germany, Fed. Republic	5,642	15,949
Gibraltar	8,562	19,203
Spain	19,179	4,006
U.S.A.	48,490	51,166
TOTAL (incl. others)	329,840	249,849

Source: The Europa Yearbook (1981).

TABLE XIV

EDUCATION
(1977/ 78)

	SCHOOLS	TEACHERS	PUPILS
Primary	792	2,866	140,632
Seconday	59	1,255	21,614
Technical	9	246	3,405
Teacher Training	13	84	1,323
University	1	231	1,284

Source: The Europa Yearbook (1981).

APPENDIX C

SCHOOL ENROLLMENT FIGURES IN
WESTERN AFRICA

TABLE XV
NET ENROLLMENT RATIOS IN DEVELOPMENT COUNTRIES
BY AGE GROUP AND SEX, 1975 AND 1977

Region/Country	6-11 yrs. of age ^a			12-17 yrs. of age ^a			18-23 yrs. of age ^b		
	All	Male	Female	All	Male	Female	All	Male	Female
Benin	48.8	57.0	26.8	20.3	27.0	13.7	3.9	5.7	2.1
Cameroon	85.5	93.2	77.9	49.0	59.0	39.0	6.0	9.1	3.0
Central African Republic	56.8	73.8	40.1	25.2	37.5	13.4	2.4	4.2	.6
Chad	30.0	43.8	16.7	13.8	22.3	5.8	1.0	2.0	0.1
Congo	100.0	100.0	100.0	97.5	100.0	81.3	20.0 ^c	29.1 ^c	11.2 ^c
Gabon	100.0	100.0	100.0	88.0	100.0	75.6	11.5 ^c	15.9 ^c	7.1 ^c
The Gambia	28.7	38.4	38.4	16.8	23.1	10.5	0.7	1.3	0.1
Ghana	42.5	46.6	38.4	48.6	55.1	42.1	8.1	11.9	4.0
Guinea	26.0	34.8	17.3	24.4	31.3	11.7	7.2	12.1	2.3
Ivory Coast	70.7	85.9	55.7	50.9	69.8	32.1	8.9	14.1	3.8
Liberia	36.0	44.1	28.1	40.8	58.3	23.5	6.0	9.0	3.1
Mali	21.0	27.8	14.0	16.5	20.7	12.0	3.2	5.1	1.3
Mauritania	23.2	30.2	16.2	18.6	27.1	10.1	1.9	3.5	0.4
Nigeria	65.8	72.8	59.0	32.4	39.0	25.8	2.5	3.6	1.4
Senegal	35.4	42.6	28.3	26.2	34.5	17.9	7.4	11.1	3.8
Sierra Leone	34.8	40.9	28.7	23.1	30.7	15.6	4.6	6.6	2.7
Upper Volta	12.2	15.4	9.0	6.2	8.1	4.1	0.5	0.8	0.3

Symbols: ^a 1977 ^b 1975 ^c 1974

Source: Education (1980).

2
VITA

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Candidate for the Degree of

Doctor of Education

Thesis: OCCUPATIONAL ANDRAGOGY AND THE INFORMAL WORKING
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Master of Education degree in International
Educational Development and Adult Education
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