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The Ohio State University, Ph.D., 1973
Education, general

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ASSESSMENT OF THE SECONDARY SCHOOLS RELATED TO THE UNITED METHODIST CHURCH IN THE DEMOCRATIC REPUBLIC OF THE CONGO

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

by

Barbara Dallas Norris, A.B., M.A.

* * *

The Ohio State University 1973

Adviser
College of Education
ACKNOWLEDGMENT

To undertake as well as to complete a study of this particular nature has been made possible only with the assistance of a number of institutions through the people who are their vitality. The investigator here gives acknowledgment for their support with profound appreciation.

The World Division of the Board of Missions of the United Methodist Church has given the writer the opportunity of sharing in the development of their educational activities in the Democratic Republic of the Congo during a period of fifteen years. From this experience came the awareness of the need for such a study and the personal motivation for undertaking the task. Dr. Juel Nordby, Executive Secretary for the Africa II area (which included the Democratic Republic of the Congo) of the World Division, and Dr. Samuel R. Smith, Functional Secretary for Education of the World Division, offered strong encouragement for the investigation to be undertaken and facilitated the field study by the underwriting of the project with a full grant of the cost from the World Division.

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The reception of the writer at the various offices of education in Brussels, Paris, and particularly in Kinshasa was as a professional educator and co-worker; genuine interest was manifest by the sharing of any pertinent materials available. Appreciation is here extended to personnel in the Protestant Office of National Education, the Catholic Office of National Education, the UNESCO mission office, the education office of US-AID, and the Office of Study and Planning of the National Ministry of Education, all in the capital city of Kinshasa.

The Ohio State University, College of Education, through its personnel responsible for guiding this student, has given enthusiastic support to a study of this peculiar nature as pertinent research from the first presentation of the idea. Profound appreciation is here extended to Dr. Robert B. Sutton, major advisor, for encouragement, patience, and personal appreciation of the problems of education in Africa, all of which have made possible the final completion of the writing. Dr. Donald P. Sanders has manifest an unusual enthusiasm and interest in the nature of the study from the beginning of preparation; special gratitude is given to him for his consistent encouragement over the extended period for the completion and for his counsel in preparation of the study and the technical assistance in the preparation of the instruments utilized. Dr. William Wayt, who has shared with the writer an extended length of work experience in Africa, also served on the Reading Committee for this dissertation; his careful reading of the
preliminary draft and his advice pertaining to the various tables and illustrations have made a significant contribution to the final paper.

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CHAPTER I

INTRODUCTION

General Considerations

Formal instruction or schooling for much of Africa was introduced by the pioneer efforts of Christian missions. The influence of these efforts continues to be a factor in the present scene of education in Africa south of the Sahara. This is true generally but particularly so in the territory of central Africa known at different periods as the Independent State of Congo, the Belgian Congo, and the Democratic Republic of the Congo. The Belgian government relied to a greater extent upon the work of religious bodies as agencies of education than did other colonial powers on the continent.

At present because of lack of other provision by the government, the greater portion (80%) of the national education system in the Democratic Republic of the Congo is managed by the churches that have grown from the work of the missions. This is true at all levels of formal classroom work as well as in areas of informal adult education.

The sphere of activity of the United Methodist Church in the Democratic Republic of the Congo (hereafter referred to as the UMCC)  

1 The name of the country was officially changed to Republique du Zaire in November 1971, a date following the actual period when the study was made, and therefore this former name will be used throughout this paper.
is in an area located in the southern and central sections of the
country, extending north from Lubumbashi for a thousand miles into the
interior, generally in rural areas. The present church is a develop­
ment of the mission projects initiated in 1914 by the former Methodist
Episcopal Church and the former Methodist Episcopal Church, South,
both of the United States. Education has been an intrinsic part of
the mission activities from the earliest years. By 1969 the UMCC was
responsible for ninety-nine primary schools with an enrollment of 53,792
and ten secondary schools with an enrollment of 2,061.

During the colonial period (1908-1960) emphasis was placed on
forming a base of primary schooling with great selectivity for training
at higher levels. Early instruction was given in the local vernacular.
An approach to uniformity existed because of grant-in-aid relationship
of the government to the missions for education.

The territory situated in the true heart of Africa became
independent as the Democratic Republic of the Congo on June 30, 1960.
(Hereafter in referring to the name of the country the abbreviation for
the French form Republique Democratique du Congo or RDC will be used.)
The problems of any new and developing nation were augmented by the
political, economic, and social upheavals rendering near anarchy at
several periods in the ensuing years. The lack of educated leaders only
compounded the problem, as well as adding stimulus to the demands for
education for the young and particularly at the evolving secondary level.

The Reform of 1962 following independence put into function the
Cycle d'Orientatio{n, a two-year post-primary prerequisite for the
secondary curricula of four years. This kind of junior high presently
follows a six-year primary school program. The pattern at the secondary level remains very similar to the continental systems: a choice among curricula but with a prescribed group of courses for a particular curriculum with no elective courses. French is the language of instruction at the junior high and the upper secondary levels.

Lack of stability in the country, low level of operational efficiency, and a dearth of qualified personnel in the Ministry of Education have allowed the expanding number of secondary schools to operate with a minimum of government supervision. Even though government standards have been established in a number of areas related to secondary education (building specifications, personnel qualifications, pupil admission and promotion standards, maximum and minimum class size, rate of tuition and boarding fees), little direction and supervision is offered other than the gathering of the statistics and information needed to pay salaries and subsidies.

Secondary schools have developed rapidly since 1960 in the nation. The group of schools maintained by the UMCC as a part of the national system is typical of the expansion in the country. In 1960 the Methodist Missions were cooperating with the American Presbyterian Mission in maintaining one post-primary school offering general secondary preparation, granting a diploma leading to university entrance. However, there had been other post-primary education under the Methodist Missions during the preceding period: training for primary school teachers and for nurses' aides were offered but these programs were very strongly vocationally oriented with little general content instruction. In 1959 the schools which had been called Ecole de Moniteur
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*Present institution preceded in early 1930's by Fox training Institute at another location. This institution offered basic education to Moise Tshombe and Jason Sendwe, both prominent on the national political scene in the early 1960's.

Ecole de Moniteurs—4 year course following 7 years of primary school preparing teachers for upper grades of primary school as well as general secondary, leading to diploma.

Ecole d'Apprentissage Pedagogique—2 year course following 5 years of primary school preparing teachers for beginning grades of primary school.

Fig. 1.—Historical Outline of Present Schools of the UNCC.
of land transportation made this type of operation the only practical mode until the period following independence when the use of small aircraft by the UMCC became essential for operational efficiency and personnel safety during crisis periods. During the same period and following in the mid-1960's the number of secondary school classes for the total group of schools was increasing at the rate of about six each year. Already during periods of disruption, personnel from one Conference had been reassigned to the other Conference and this was done most easily for secondary school personnel because of the use of French as the teaching language in all secondary schools in the country.

Along with the heavy demand for personnel was the need of some priority of its assignment and coordination in the selection of the curricula to be followed by the different schools. All of these factors pushed toward the creation of some group to participate at least in a conciliatory manner in the decisions related to both curriculum and personnel with an aim of coordinating the operation of the total group of existing schools at the time and those coming into being during the period.

When a Congolese with limited educational background was named to head the UMCC in 1964, the urgency for such a group to serve in a professional advisory capacity for secondary education to the new Bishop became even stronger. Beginning in 1965 the directors of all UMCC secondary schools and a few additional ex-officio members met at least annually to discuss mutual problems, to gain an overview of the total program of the secondary schools of the UMCC, and to attempt coordination of programs and personnel.
Although the meetings were a professional enrichment experience for those in attendance, they were not able to make strong strides toward any real efforts at overall coordination and mutual cooperation. The nature of the group, that of school directors, did not give the breadth of experience needed for policy-making recommendations to the UMCC and too often each director came as defender of the rights of his school to its fair share in funds and personnel. However, the greatest obstacle to any attempt at overall collaboration was the dearth of hard data available about each of the schools, information that should be imperative to any pertinent decision making by whatever group might deal with educational planning for the UMCC. The need to have this kind of data available for the use of the UMCC became stronger in the thinking of the writer with every passing meeting of the group of which she was an ex-officio member until 1967 by virtue of being Branch Treasurer for the Board of Missions of the United Methodist Church (hereafter referred to as the Board), but with training in secondary education and with earlier teaching experience in three of the schools involved.

Although these schools are a part of the national system which follows government regulations and in turn benefits from funding for teachers' salaries and subsidies for both school fees and boarding department fees, the UMCC has the responsibility of maintaining facilities, selecting teaching personnel, and adhering to scholastic standards. Therefore this study attempts to collect, classify, and interpret data about the secondary school system of the UMCC relating to the aspects for which the UMCC has singular and/or ultimate responsibility, namely: finance and administration, physical facilities, teacher
qualifications, student performance and follow-up, and community relations. Interpretation of the data is made in comparison to the standards and performance on a national basis where possible and in comparison of the aspects indicated above among the schools of the set.

These components of the schools were chosen for special attention in order to provide more adequate information to those responsible for decision making in both the UMCC and the Board in their function of collaboration with the national Ministry of Education in the operation of these schools. The study examines those schools to which the Board forwards funds through the UMCC.

Since the RDC is a very new nation, whose educational system was rapidly evolving when independence was achieved, it is to be expected that certain aspects of the educational scene in many developing nations will be found there also. Among these would be:

1. A strong continuing influence of the former colonial power. A strong influence of Belgian philosophy of education in both methods and administration can be expected to give a prominent background for the present direction of education in RDC.

2. Both the increase in total population with the larger percentages at the school age end of the spectrum and the explosion of demand for education across Africa place a financial obligation on the national government which is impossible for it to deal with adequately.

3. The language problem is one of the most complex components of the educational question. An international language is
imperative at the secondary level but the mode of giving the
African child such facility without neglect of the local
culture with language as one of its strongest expressions
poses a true dilemma.

4. The quality of the educational services offered is limited
by the lack of qualified personnel, both administrative and
teaching, in the face of the rapid expansion of the educa-
tional system that has taken place.

5. Not only the capital funds available but the climate and
the degree of infrastructure of a country influence the
quality and quantity of physical facilities that can be
maintained.

6. As an institution such as the schools becomes more nation-
alized in personnel the mode of operation will reflect the
indigenous social structure to a greater degree and the
foreign mode to a lesser degree.

The concern of a study such as this one, of course, is not
merely to illustrate how these aspects are manifest in a given set of
schools, but instead, to use them as a background against which the
specific problems and needs of a particular set of schools can be
investigated and proposals for their amelioration can be formulated.

Methodology

This study investigates a set of schools in a developing nation
which is operated by a private agency in collaboration with the national
Ministry of Education and treats those aspects of the schools related
to the area in which the agency and the national government share responsibility, but for which the agency has operational responsibility. The schools are the secondary schools related to the United Methodist Church in the Democratic Republic of the Congo to which the Board contributes funds which are at the same time a part of the national system of education. The national government through the Ministry of Education provides for private agencies to operate schools for which they will contribute staff salaries, funding of school fees, partial funding of boarding department fees, minimum funding for physical facilities, and in addition material provision of certain student classroom supplies and books, in exchange for the responsibility assumed by the agency for following the government programs and regulations that have been established for secondary schools on a national basis. These areas of shared responsibility, as indicated earlier, are in pupil care and performance, administration of both program and finances, maintenance of physical facilities, staff qualifications, and community relations of the school.

Certain precautions must be observed in undertaking such a study in the setting of a rural area of a developing nation. The approach utilized in planning this investigation is based on intuition enhanced through the experience of the writer during thirteen years as an educational missionary of the Board, including classroom teaching in three of the schools included in this study. This period in the field straddled the date of independence in 1960, the epoch when the secondary schools were emerging.

This broad experience pointed up the practical necessity of making the investigation by the direct method of a personal visit to
each school involved in order to gather data by observation and directly from the office of the director; only a limited amount of valid information could be hoped for by any other means.

However, one does not just decide to make such visits and announce the arrival date when dealing with people in many developing nations and particularly in a rural setting such as many of these school communities. At this point the approach to the field for facilitating the investigation took the form of a process to assure both the full cooperation of school and church authorities while maintaining full autonomy for the direction of the study. The procedure consisted fundamentally of two steps: (1) determining the power structure involved in the situation and (2) reinforcing bridges of contact to enhance professional respect of both school and church personnel.

From the earlier field service the investigator was aware that although the school system had begun through the efforts of the Board, that with recent nationalization and partial withdrawal of missionaries, the real authority rests increasingly with the UMCC. The ecclesiastical structure is episcopal in form with a bishop as the head of the church for the country. In the setting in the rural area of the center of Africa, the power of the bishop at this epoch is much like that of the traditional African chief; absolute, authoritarian, and exercised by another only by delegation. Any authority of government personnel is negligible as compared with that of the bishop as regards the schools.

Another factor of power in the setting is the phenomenon of peasant isolationism with its manifestation of strong rejection of intrusion from the exterior. This sociological force was known to be
present in the less urbanized setting and to operate with vigor in segments of the UMCC.

With these factors in mind the first approach was made directly to Bishop John Wesley Shungu during his visit to the United States in October, 1968. The writer was convinced that if he were in favor of such a project that the first and most important hurdle for the success of the study would have been overcome. He was sensitive to the need for the kind of information such a study could provide for himself as well as others; his response was enthusiastic both for the investigation and that the writer be the person to undertake the project, "because you understand our educational problems."

It was necessary to assure him at that time that he was the first person with whom the idea had been shared and cautioned that the project could not be undertaken by the writer without the cooperation of both The Ohio State University and the Board. These later contacts were made and favorable reactions received. A missionary who had served as administrative assistant to the Bishop gave strong encouragement to the Board and to the writer that the project be undertaken by the writer because of her professional background and previous experience. The Board, however, favored a full-scale evaluation for all levels of schooling, as it was attempting at the time for all overseas areas for which it had responsibilities in education. Such an expanded study would have included a professional consultant to give direction and collaborate in the full-scale project. This suggestion of sending a total stranger into the area was flatly refused by the UMCC through its Special Education Committee. Soon the request came from this same committee to the Board
that the writer, well known by the UMCC and experienced in the schools involved, be sent to attempt the study of the secondary schools. An outsider to the situation was not acceptable at the given moment.

Plans were completed to include not only the school visits for gathering the specified data but also consultative service to a specially designated committee of the UMCC for educational planning and coordination. In addition the Board had requested observation on (1) status of training of teachers for secondary schools and (2) the situation of both general and special education of girls at the secondary level. The field group was designated to receive the report finally and act on its recommendations. Written contact was initiated with the members of this group and with each secondary school director involved before leaving for the field study. Explanations of some aspects of the study were given at that time.

This negotiation with the field prior to undertaking the project and the actual request for the writer to undertake the study as well as serve as consultant for educational planning at the secondary level for the UMCC, also assured a high positive rating for factors which Goodenough considers to be dependent variables for the success of a professional person working for social change: (1) recognition by fellow professionals of competency in meeting professional standards of performance and (2) the extent of lay recognition and consequent demand for services.²

The actual field trip, requested by the UMCC and funded by the Board, was made during the period of October 1, 1970, through February 2, 1971. Data were collected through contacts with the offices and agencies for education in the capital city of Kinshasa, and by personal visits to each of the schools involved. Mention of previous experience in the educational system dating from before independence (1960) appeared to be an important factor in opening doors to information at a number of offices. At each school where a call was made, at least one of the staff members, often the director, was a former student. Cooperation was everywhere optimal.

A period of ten days spent in Kinshasa in early October yielded good documentation from various educational offices as to the current situation with regard to government regulations for the schools. Contacts were established at these major offices: The Catholic Office of National Education, the Protestant Office of National Education, the Office of Study and Educational Planning of the National Ministry of Education, the National Institute of Pedagogy, the University of Louvaniun, the Institute of Economic and Social Research, the Office of Research and National Development, and with educational officers for US-AID and UNESCO. Later contacts were made at the State University in Lubumbashi and the Free University in Kisangani, and with certain education officials at the provincial level. The supervisors of the primary schools who gather the statistical data for the secondary schools of the UMCC were consulted in order to utilize the current information available to them.
The various contacts made at the educational office and at the higher level institutions in the country indicate that little research is being done in the field of education in the Congo, either by expatriates or nationals. Inquiries brought forth the identical reaction in every place: a non-verbal response indicating how ridiculous to be undertaking research when every sinew must be stretched to keep a system or institution in operation under the conditions that have been a part in this nation during the last ten years! The assurance of knowledge of such existing circumstances through personal experience usually yielded further comment that little was going on in research in education, and particularly at the secondary level. More work was being attempted at the University of Louvanium than at any other institution, but even here the content usually deals with primary level methodology, and only a few studies related to the junior high school were noted. Significant research is being done in the field of experimental pedagogy and psychology, particularly in adaptation of projective techniques in the African setting. No research dealing directly with the operation of the secondary level of schooling in the country was found. Further contacts at the Free University, Brussels, Belgium, only confirmed this finding and this university has had significant contact with education in the former Belgian territory, both through Belgian Technical Assistance and a direct liaison with the State University in Lubumbashi.

Three types of instruments were projected to collect the needed data during the school visits which were made during the period of November and December 1970 and January 1971. (See Appendix A.) One was a questionnaire for background information on financial receipts and
disbursements, teaching qualifications, pupil data of both class enrollment and boarding departments. This was prepared previous to the field visit and completed and translated into French (the teaching language) after consultation with one of the UNCC educational supervisors in order that the form would follow that used by the government for such information, thus facilitating the ease of completion of the form by the school director.

The second instrument is a check-list for the investigator to use during the actual observation and treated the adequacy and use of physical facilities, student extra-curricular experience, classroom atmosphere, and teacher participation in the community. This had been prepared before the field trip and was translated for conformity when explaining to interested people the types of observations that were being made.

The third was to be some form of educational test that would attempt to measure the relative performance among the schools under study. The instruments to be used were determined during the field trip. Research in Paris, Brussels, and Kinshasa produced nothing of the achievement test type, or little of any other type comparable to the educational test used in the United States, even without consideration of whether it could be suitable for use in the Congo. The decision was made to use two instruments prepared by the Center of Pedagogical Research of the National Institute of Pedagogy in Kinshasa, mainly because these were the only instruments found to have been created in the country and used with a limited population of Congolese. Permission for use of the instruments was obtained from the director
on a basis of collaboration. These instruments were entitled mental ability tests of intermediate and superior forms. These were used at the third year and the fifth year levels. Another instrument was created by the writer with the assumption that it was based on general knowledge that should be acquired in the junior high school and was administered to all students in the third year classes.

Following a chapter of background information on significant factors related to an educational setting (educational development to the present, development of the UMCC, climate, geography, culture, history) the study will proceed to deal in turn with (1) pupil care and performance, (2) physical facilities, (3) finance and administration, school and community relations, (4) teacher qualifications, and finally, the conclusions and recommendations for this set of secondary schools related to the national Ministry of Education and the United Methodist Church in the Democratic Republic of the Congo.
CHAPTER II

BACKGROUND

Before beginning to look at the results of the present data gathered about the secondary schools related to the national Ministry of Education and the United Methodist Church in the Congo, certain influences that have preceded this present epoch as well as physical factors affecting the operation of the schools should be understood for the effects they have on the schools. The historical pattern of the educational system of the Congo as it has evolved undergirds the present philosophy and organization. The historical development of the UMCC is another element. Political history, cultural patterns, pre-colonial traditions all need to be examined briefly as preliminary information. Geography, climate, population, and the present development of economic infrastructures need to be brought to the foreground because of the effects they have on the physical aspects of the schools. All these factors will be examined in turn before focusing specifically on the individual schools which make up the set to be studied.

Formal education in the Congo had its beginning in a school for training guards begun at Boma, near the mouth of the Congo River, in 1906, the epoch of the Independent State of Congo. The law of October 18, 1908, or the Colonial Charter, established the government for the Belgian Congo and included the principle of freedom of education. This
latter confirmed that the state held no exclusive prerogative for education but permitted private agencies to share in provision of education. Development of formal education progressed slowly, and in fact for many years the government left all education to private bodies.

The distinctive features of the Belgian system which operated in the African territory were (1) its close association with religious teaching and religious orders, (2) the utilitarian outlook, and (3) the use of the vernacular language, often the mother tongue, for instruction.

The association with religion dates back to the Act of Berlin of 1885 which gave a special protection to Christian missions who entered the territory. In 1906, a Concordat between the Vatican and Leopold II established Roman Catholic missions with a nearly exclusive influence and secured subsidies for religious work as well as educational activities. This agreement provided that every Roman Catholic mission in the territory should open schools.

The Colonial Charter of 1908 guaranteed religious liberty but tended to favor Roman Catholic missions and particularly those of Belgian origin. A small number of schools opened by the Belgian government were financed by revenues but staffed by members of Roman Catholic teaching orders. This was a first attempt at government or official schools.

In 1925-26, a twenty-year convention was drawn up for subsidy grants to national missions defined as those with buildings in Belgium.

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3See page 42 for further explanation of the Conference of Berlin which enacted this document.
There were no restrictions on other schools and no inspection unless subsidy was granted. In the period dating from 1878, Protestant missions were establishing schools but had difficulty carrying them on without state assistance because all were of foreign origins.

In 1948 there was a renewal of the distinction between national and foreign missions and grants were made to all teaching groups on the same basis: all staff should know French and have spent a year in Belgium attending approved courses, the government syllabus should be used, and inspectors should have approved teaching credentials. Ten years were allowed for those already teaching to comply with the regulations. 4

This laid the foundation for post-independence policy with the church-missions. Today national education is maintained through six different sectors: official, official congregational, Roman Catholic, Protestant, Kimbanguist, 5 and private. The official school, sometimes referred to as a lay school in contrast to a mission school, is fully maintained by the government. The official congregational school is state operated but teaching responsibility is given to a religious teaching order. The schools of the Roman Catholics, Protestants and Kimbanguists are categorized as "nationally approved and subsidized." Each of these sectors maintains a national office of education to coordinate their sector with the national Ministry of Education. Some


5 The Church of Jesus Christ of Simon Kimbangu is an indigenous Christian movement with particularly rapid growth since 1960.
of the private schools (often maintained by an agency such as a mining company or plantation management) are organized through a national office of free education with the intent of becoming national schools.

Tables 1 and 2 indicate the continued major role played by the churches in national education, particularly the Catholic sector. Table 2 shows also the large increase in official schools during the period of national development following independence. The continuing broad base in primary education is shown by the secondary school enrollment of less than 10 percent of primary school enrollment in Table 1.

Further evidence of the continuing influence of the churches is the inclusion of religious or moral instruction in the present national curriculum of both the secondary level and the primary level in all types of schools both state schools and those operated with the assistance of private agencies. Each student must enroll in classes, usually two hours per week, in religion with the instruction provided by his sector or in classes providing instruction in moral responsibility.

The utilitarian aspect of education can be traced from the Colonial Charter of 1908 which pointed out the necessity to train clerks, semi-skilled workers, primary school teachers, and agriculture agents. The official yellow brochure of 1929 established special post-primary schools with administrative, normal, and technical sections. In some cases normal sections were established as separate schools. This was especially true of the mission programs in education. The objective was to prepare directly the students to use effectively skills of the office and to enable an effective preparation for specialized higher training. Only in 1948 did the general secondary school preparing for
**TABLE 1**

TOTAL ENROLLMENT IN PRIMARY AND SECONDARY SCHOOLS
IN THE DEMOCRATIC REPUBLIC OF THE CONGO
IN 1968-69 BY SECTOR AND PERCENTAGE
IN EACH

<table>
<thead>
<tr>
<th>Type</th>
<th>Primary</th>
<th>Secondary</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>313,015</td>
<td>77,434</td>
<td>390,449</td>
<td>13.5</td>
</tr>
<tr>
<td>Official-Congregational</td>
<td>12,754</td>
<td>7,673</td>
<td>20,427</td>
<td>0.7</td>
</tr>
<tr>
<td>Catholic</td>
<td>1,623,447</td>
<td>75,515</td>
<td>1,698,962</td>
<td>58.8</td>
</tr>
<tr>
<td>Protestant</td>
<td>456,311</td>
<td>23,685</td>
<td>479,996</td>
<td>16.7</td>
</tr>
<tr>
<td>Kimbanguist</td>
<td>159,318</td>
<td>16,938</td>
<td>176,256</td>
<td>6.1</td>
</tr>
<tr>
<td>Private</td>
<td>101,189</td>
<td>20,951</td>
<td>122,140</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>2,666,334</td>
<td>222,196</td>
<td>2,888,230</td>
<td>100.0</td>
</tr>
</tbody>
</table>

TABLE 2

COMPARISON OF ENROLLMENT IN PRIMARY AND SECONDARY SCHOOLS
BY SECTOR OF THE BELGIAN CONGO 1959-60 AND
THE DEMOCRATIC REPUBLIC OF THE CONGO 1968-69

<table>
<thead>
<tr>
<th>Type</th>
<th>1959-60</th>
<th>1968-69</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>68,729</td>
<td>390,022</td>
<td>578</td>
</tr>
<tr>
<td>Catholic</td>
<td>1,359,118</td>
<td>1,732,055</td>
<td>128</td>
</tr>
<tr>
<td>Protestant</td>
<td>338,289</td>
<td>481,002</td>
<td>151</td>
</tr>
</tbody>
</table>


higher education with both Latin sections and modern humanities sections make its appearance. In 1952, a distinction was made between the general high school to give adequate preparation for university and a special high school to lead to professional schools of higher level but not of university standing.  

The use of the vehicular language characterized education in the Congo until the late 1950's. The early formula for congregational and subsidized schools put emphasis upon adaptation of the school to the setting with more emphasis upon education in a broader sense than instruction. Special schools for girls were suggested. A 1938

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regulation emphasized the use of French in upper primary grades but placed restrictions on any use of it in early grades. In 1948, French became a second language of the primary school curriculum and emphasis was placed on the global method of instruction. Attempts were made to attain the level of instruction for the same year of schooling in Belgium. Art, physical education, handwork, agriculture, and crafts formed a large segment of the program, which never included instruction in science. In the last years of Belgian control, both history and geography of Belgium were included and it was expected that the language of instruction from the beginning class would be French, with return to the mother tongue only for explanations.

The structure of the educational system as it evolved for the colony was very complex with several different types of primary schools each leading to a particular type of middle school or secondary school, with great diversification of post-primary courses and little possibility of transfer from one type to another. Great emphasis was given to agriculture, technical, and normal preparations although after 1948 there was a minimum of sections preparing for university. In 1955, government-operated schools were created to use the same program as that used in Belgium. A 1959 law established the equivalence of studies achieved in Congo in the "metropolitan" program with those obtained in Belgium in the exact same program.

7The global method uses observation in the surroundings of the school to find a center of interest from which instruction in all areas can be drawn.
The Reform of 1962, initiated by the newly independent government, simplified and gave a uniformity to the whole system with a common general education of six years primary schooling plus two years of junior high school, and the possibility of entry into one of several four-year sections leading to specified higher training of university level or into professional terminal courses. Table 3 gives the required classes and hours for the present primary school system, which is uniform throughout the country. Although science does not appear in the outline before grade V, the hours designated Observation include elements of science from the local environment as well as initiation to scientific observation. Strong emphasis is placed on instruction in French and in arithmetic. This is true as well for the junior high school, le cycle d'orientation, but this program also includes a broad spectrum of elements of many different subjects. See Table 4. Thus general education is nationally uniform for eight years: six years of primary schooling plus two years of junior high level.

Figure 2 indicates the curricular choices of secondary education at present with the options in higher education that follow completion of a particular curriculum. This diversification is in contrast to the uniformity of the preceding general education. Although it appears that a student has many choices, the reality of a developing system means that some types exist in limited numbers and widely scattered locations. The 1968-69 statistics indicate 178 sections of all technical-vocational options (including medical and veterinary science in addition to those listed), 295 sections of the pedagogy option, 249 of science, and 120 in literary. A particular province can have a minimum of a given option:
### TABLE 3

**PRIMARY SCHOOL PROGRAM IN DEMOCRATIC REPUBLIC OF THE CONGO**

**HOURS PER WEEK PER STUDENT BY CLASS OR GRADE, 1970-71**

<table>
<thead>
<tr>
<th>Subject</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>5½</td>
<td>5½</td>
</tr>
<tr>
<td>Religious instruction</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2½</td>
<td>2½</td>
</tr>
<tr>
<td>Civics</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Observation</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>General Science</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>African language</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Handwork and art</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Physical education</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music (singing)</td>
<td>1</td>
<td>1</td>
<td>½</td>
<td>½</td>
<td>½</td>
<td>½</td>
</tr>
<tr>
<td>Recreation</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27½</td>
<td>27½</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
</tbody>
</table>

*Number of hours per week, a six-day school week.

<table>
<thead>
<tr>
<th>Subject</th>
<th>1st year hours</th>
<th>2nd year hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion or moral instruction</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Civics</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>French</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>English</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>History</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7*</td>
<td>6</td>
</tr>
<tr>
<td>Biology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Geography</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Technology</td>
<td>1</td>
<td>3*</td>
</tr>
<tr>
<td>Physical education and sports</td>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td>Music</td>
<td>0*</td>
<td>0*</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong>*</td>
<td><strong>32</strong>*</td>
</tr>
</tbody>
</table>

*Hours may be added on option.

Fig. 2.—Organization of Secondary and Higher Education in Democratic Republic of the Congo, 1970-71.

**SECONDARY EDUCATION**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Number</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Certificate of professional aptitude</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Mechanics</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Electricity</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Industrial chemistry</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Construction</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Agriculture</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Cycle of Orientation</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Commerce and Administration</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Science</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Literary</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Social</td>
<td>3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Pedagogy</td>
<td>3 4 6</td>
<td></td>
</tr>
</tbody>
</table>

**HIGHER EDUCATION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Polytechnical Science</td>
<td></td>
</tr>
<tr>
<td>Higher Institute of Technology</td>
<td></td>
</tr>
<tr>
<td>Faculty of Agriculture</td>
<td></td>
</tr>
<tr>
<td>Higher Institute of Agriculture</td>
<td></td>
</tr>
<tr>
<td>Faculty of Economics Science</td>
<td></td>
</tr>
<tr>
<td>National Institute of Law and Admin</td>
<td></td>
</tr>
<tr>
<td>Faculty of Polytechnical Science</td>
<td></td>
</tr>
<tr>
<td>Faculty of Science</td>
<td></td>
</tr>
<tr>
<td>Faculty of Medicine</td>
<td></td>
</tr>
<tr>
<td>Higher Formal Training Institute</td>
<td></td>
</tr>
<tr>
<td>Faculty of Philosophy and Letters</td>
<td></td>
</tr>
<tr>
<td>Faculty of Law</td>
<td></td>
</tr>
<tr>
<td>National Institute of Law and Admin</td>
<td></td>
</tr>
<tr>
<td>Higher Formal Training Institute</td>
<td></td>
</tr>
<tr>
<td>School of Social Work</td>
<td></td>
</tr>
<tr>
<td>Faculty of Pedagogy and Psychology</td>
<td></td>
</tr>
<tr>
<td>Higher Formal Training Institute</td>
<td></td>
</tr>
</tbody>
</table>

*Denotes a transition year

the Eastern province had four in technical options and the Equator Province had only three science sections.  

The same disparity would be true at the university level. There are three universities with several professional institutions of the post-secondary level. University education within the country began in 1954 with the founding of the University of Louvanium by the Roman Catholic Church and with a strong affiliation with the University of Louvain. The state university at Elisabethville came into function in 1955 and the Free University with Protestant church backing began in 1963 at Stanleyville. Each one maintains some faculties but each does not have all; however, Louvanium has the greatest diversity.

The present mode of operation is through a national Ministry of Education, with division of responsibilities. Although most of the offices of the Ministry are centralized, provincial offices are maintained with basic responsibility for the operation of the primary schools. The organization of the Ministry of Education is outlined in Figure 3. A national commission of UNESCO and the commission for study and planning continue to be attached directly to the office of the General Director.

Although a uniform curriculum has been established for the entire national system, the Belgian heritage of philosophy and form continues to give a strong foundation. Because of the continuing influence through

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9In 1971, these three were brought under government control and became branches of a unified national university.
Fig. 3.—Organization of the National Ministry of Education Democratic Republic of the Congo, 1970.

* Translated from report presented to the World Bank, October, 1970.
technical aid and scholarship to Belgium this is expected to continue. Africanization of personnel is complete for primary schools and about 60 percent of secondary school personnel is national. Little adaptation of programs to the African setting has taken place. Awareness of this defect seemed to be growing among Congolese educators and means to correct the situation are being sought currently by a National Commission on Reform of Education.

The United Methodist Church in the Congo

The organization that is now the UMCC has developed from work begun by two missions in separated areas during the period 1910-1914. The Methodist Episcopal Church, South, of the United States sent missionaries to work with the Batetela tribe in the very center of the Congo. This was the beginning from which the Central Congo Annual Conference has grown to include activities in the provinces of Eastern Kasai and Kivu, an isolated area of the interior. Workers went from the Methodist Episcopal Church in the United States to work with the Lunda and Baluba tribes. Today the Southern Congo Annual Conference includes activities

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10 The associations of the writer with this institution are the primary source. Helpful references are:


Eva Coates Hartzler, *Brief History of Methodist Missionary Work in the Southern Congo during the first 50 years* (Elisabethville: Methodist Church of Southern Congo, 1960.)
in southern and western parts of the Katanga province, and includes the urban agglomerations that developed with the opening of the mining industries.

Educational services along with medical work have been an intrinsic part of the outreach of these missions along with evangelization. Agriculture, literacy, community social centers, and special training for women have become a part of the concerns of the developing church.

The fact that the sphere of work was basically in rural areas where the only educational facilities for the general population were those provided by the mission, either Roman Catholic or Protestant, led to strong demands on the authorities of the mission/church to provide schools and train teachers beginning with the primary level. Government subsidies were provided to Protestant missions beginning in 1948 and enabled improvement of both the quality of the schools and the number that could be provided. The Board of Mission supported the emphasis on schooling by funding a large portion of the budget as designated for education and by qualified educational personnel who were given the orientation in Belgium required of educational personnel in the colony.

Comity agreements were made among the members of the Congo Protestant Council dating from 1925 to provide geographical divisions assigned exclusively to a particular mission. The 1939 union of the two churches from which Methodist missionaries were sent, created two distinct areas of Methodist work and separated geographically by the area of mission activity of the Presbyterian Church, United States. This geographical factor has been a significant contribution to the cooperative work and projects that have been carried out by these groups and
particularly in education. An outstanding example is the operation of Union Secondary School, Katubue, which is included in the present study as a Methodist school.

With the development in the early 1960's of national churches to replace missions, the comity agreements were less respected by the churches than they had been formerly by the missions. When as a result of tribal difficulties in its southern cities in the post-independence period, church leaders of the Baluba-Katanga tribe returned to their tribal area in the eastern and northern Katanga province, a third Annual Conference, North Katanga, contiguous to the Southern Congo Annual Conference, developed. The original designates of Protestantism in this area initiated little in educational facilities but had expanded efforts on a strong evangelical thrust. Although activities of the UMCC are limited in the area, the establishing of primary schools has been a vehicle for the spread of influence in the area, a rural region made more remote by lack of transportation facilities, but where there are schools and churches in nearly all centers in this northeastern portion of the province. See Figures 4 and 5.

The body known as the Annual Conference convenes yearly and is composed of an equal number of clergymen and laymen. The Conference functions through various committees, of which the Education Committee is one of the more active groups and ultimately is responsible for the educational activities of the UMCC at all levels. The Education Committees are often expanded to include directors and teachers and become so large as to be unwieldy for proper or efficient operation.
Fig. 4.—Administrative Divisions of the Democratic Republic of the Congo, 1970.
Fig. 5.—Map of the Area of Influence of the UMCC Schools, in the Democratic Republic of the Congo, Showing Location of Schools, Provincial Boundaries, and Annual Conference Boundaries.
A Special Education Committee for the Area (the three Annual Conferences) was named prior to the study to cooperate in the study and in future planning and coordination for secondary education. This group of about twenty members was carefully chosen and represents some of the best professionally qualified people in education and in the church. The group was given only consultative power with all recommendations returned to the Education Committee in each Annual Conference for authorization.

The bishop is the executive over all three Annual Conferences. Each Conference is divided into a number of districts with each one supervised by a pastor appointed by the bishop and called the district superintendent. He, together with certain others appointed to various types of work within the district, form the district council. This group is responsible for all activities of the UMCC within its area, both conference-wide projects such as some of the secondary schools are, as well as local affairs. This means that each of the schools being studied is ecclesiastically under the jurisdiction of one of these district councils, which can negate the autonomy of the director as head of the school.

In each Conference, there are one or two supervisors for primary schools. Essentially they compile the statistics necessary in dealing with the government for payment of the teachers' salaries and other fundings to the schools. For this relationship with the government the legal representative, a person designated by an incorporated body and recognized by the state to manage affairs between the two, gives assistance and the funds are transferred by the government through channels
of the designated treasurer of the Annual Conference. One of the supervisors is also designated to gather the needed statistics for the secondary schools with responsibility to forward them for funding of salaries and subsidies.

Directors of secondary schools and other educational personnel are appointed by the bishop. Missionary teachers, now a minority, also receive assignment from the episcopal head. Other expatriate teachers from agencies such as UNESCO may be assigned directly to a particular school through arrangements with the Protestant Office of National Education. In the larger centers local qualified expatriate personnel may be hired through proper arrangements by the legal representative. The UMCC assumes that any of those persons will follow a moral standard in line with its own code including restrictions against the use of alcoholic beverages and tobacco and the practice of adultery.

Preparation of teachers for primary schools began in the early 1940's and by the middle 1950's primary school classrooms were occupied by Congolese teachers. With opportunities for higher training limited for the whole of the colony, few nationals were staff members of post-primary institutions of the UMCC before 1960. The new government drew off the best trained, even though limited, to attempt to fill its posts at every level. The best trained were largely those with the four-year post-primary teacher training and the primary schools were left with those of inferior training and experience during the period following the granting of independence.

Demands for education at both primary and secondary levels increased. The UMCC attempted to require two years of service in its
schools of those completing teacher-training at whatever level. This was not satisfactory for those who had diplomas admitting them to university and with the attraction of full scholarship upon entering. The government was behind in payment of teachers' salaries in the mid-1960's; strikes were a part of every day life. Most UMCC teachers refused to strike and taught for periods up to nine months without salary payments. Thus at the same time that the church was making demands on recent graduates for maintaining the schools in the face of adversity, other individuals were exercising a professional ethic and responsibility to serve the youth of their area.

History

Pre-history of the interior area which constitutes the Congo continues until the nineteenth century when European exploration penetrated the depth of the continent. Relics of stone, both huts made from cut stone and tablets with sketches made of material original to the location have been found in parts of the Congo territory. This indicates that the development of man followed in Africa the stages indicated in other parts of the world. However, the timing may be different. The original inhabitants are considered to be a pygmy type. About 1,000 years ago waves of migration began from both the northwest and the east. They were bantus, a Negro of larger stock, who overcame and/or drove back the aborigines. Legend holds that one reason for the defeat was because the invaders possessed weapons made with iron while the natives had only stone objects with which to defend themselves, indicating that the iron age had arrived in other areas at an earlier epoch than in this
region of the interior. However, it is noteworthy that iron deposits are not found in this territory.

Of these intruding groups, those coming from the northwest carried their matriarchial form of tribal society while those coming from the east had the patriarchial form. Present day tribes evidence these differences and trace their origins by this factor.

Two among the oldest kingdoms in central Africa had their centers in the region of activity of the UMCC. The Baluba Kingdom had its center some distance from Kamina and existed in the fifteenth century. The Lunda Kingdom which continues until the present was founded in the seventeenth century. The palace of the paramount chief is within a mile of the church post at Kapanga. Certain villages of the Lunds have remains of a trench that encircled the village to serve as a means of fortification against outside invaders. The paramount chief of the Lunda is one of very few traditional tribal authorities who exercises genuine control in his area at present.

The first contacts from outside the continent to this central territory now known as the Democratic Republic of the Congo, came when the Portuguese sailor, Diego Cao, discovered the mouth of the Congo River in 1482. During later visits he made contact with the chief of the Kongo tribe which inhabits a wide area of the lower basin of the river. It is from the name of this tribe that the river was given its name of Congo. Missions were established along the banks of the river and

11 The name was changed to Zaire, the traditional name, in November 1971.
within a hundred years Christianization had spread along the banks of the river, past the rapids some two hundred miles to the open river above them. Anything gained, however, was lost by the end of the seventeenth century through dissension among powers in Portugal and competition with Dutch traders which weakened the occupation of the region.

In the early nineteenth century, Arabs from Zanzibar and the east coast had occupied the eastern third of the territory with a despotic rule and with the aim of capturing people to trade as slaves. They made partisans of the Bangwane tribe, armed them, and ruled through their tribal authority.

The nineteenth century also ushered in the beginning of wider exploration of the interior areas by European powers, particularly to areas with which we are concerned in this study. Thwarted by the rapids of the river and the rugged Crystal Mountains above the mouth of the river on the west coast, the adventurers set out from the east coast. Although a number made significant explorations and discoveries, it is David Livingstone, the Scotch missionary, who is most renowned because of his trips and particularly for having been the first explorer to cross the continent from the Indian Ocean to the Atlantic Ocean. During his third and last voyage (1866-1872) he traveled in areas that are a part of the present territory of the UMCC, particularly that of the North Katanga Annual Conference, where he believed that the finding of a sizable north-flowing stream was the discovery of the source of the Nile River, the prize of the ambition of many explorers of the period.
Henry Stanley, who came to Africa first to look for Livingstone, was to open the Congo territory to the outside by his crossing of the continent from Zanzibar and via the river thought to be the Nile but which led him to the Atlantic Ocean by 1877. The north flowing stream was actually the Lualaba River, a major tributary of the Congo River, which traverses the region involved in this study.

Belgian interest in Central Africa began with King Leopold II and the convening of the Geographical Conference of Brussels in 1876. After this followed a number of expedition-organizing types of associations with interest in central Africa. Leopold II collaborated with Stanley in an expedition in 1879 to penetrate the interior from the mouth of the river. A number of posts were established along the river from the mouth to the falls, more than a thousand miles upstream and near the equator. Among these posts was Leopoldville, presently Kinshasa, which was founded in 1881.

One of the groups formed from the Brussels meeting was a Study Committee of the Upper Congo which was particularly interested in the mineral potential and made scientific researches in the southeastern section. From this committee, the International Association of the Congo developed and was to spawn the Congo Free State when Stanley returned to the territory in 1883 and signed treaties with a number of native chiefs. From 1879 to 1884, the exploration for the International Association by numerous parties had made possible the signing of over five hundred treaties with local chiefs giving to it sovereignty over the territory. Many countries participated in the feverish explorations
of the period. Luluabourg, present location of the episcopal residence and offices of the UNCC, was founded in 1884 by Von Wismann, a German.

Inevitable diplomatic disputes among Britain, Belgium, Germany and others led to the calling of the Conference of Berlin in 1885. The result was the recognition of the territory where the International Association of Congo had influence as a sovereign state. The Treaty of Berlin authorized freedom of commerce and navigation, neutrality in case of war, suppression of the slave trade and traffic in alcohol, the obligation to improve the moral and material conditions of the indigenous people, and the necessity to effectively occupy the territory of the conventional basin of the Congo which included more than the present territory and extended to the Indian Ocean.

The same year, 1885, the Belgian King became the ruler of the territory and it became known as the Congo Free State. It should be noted that this was rather a personal matter with him than an extension of Belgian territory at this point. Further exploration took place that led Europeans to many points even further in the interior and reaching among other locations, some within the area peculiar to the present schools.

The Arabs, who had earlier established themselves in the eastern portion, viewed this mounting interest as a threat to their holdings and particularly to their increased traffic in slaves. Word of human brutalities associated with the trade spread across Europe and the Belgian Anti-Slavery Society, founded in 1888, crusaded against the outrage and the Arabs, in particular, as its source. The struggle between the groups, known as the Arab Campaign, raged for most of the following decade. Much
of this had as its setting the area of this study. The name of one of the strongest Arabized leaders, Congo Lutete, remains a word of fear and terror among the Batetela tribe and neighboring people. Until recently older people were found in the area who bore physical markings that they had been slaves of this tyrant from their own tribe.

Leopold II held this vast territory as a personal domain. With little capital remaining after negotiating with foreign interests in the area for exclusive rights, he had to seek money for developing the area by granting monopoly concessions. These were of three types: railways, 395 miles of which were built in the Congo Free State; monopolies on specific products, e.g., rubber and ivory; and exclusive regional monopolies of which one of the most influential was the Katanga company which developed political and economic power in 20 percent of the territory.

It was during the last decade of the nineteenth century that conditions arose, precipitated by forced labor in ivory and rubber gathering, which focused international concern on the physical mutilation which the exploiters and their African supervisors carried out for failure to meet requirements of labor or goods. Foreign groups protested the continuing conditions and demanded enforcement of the Treaty of Berlin. After a commission of inquiry, appointed by Leopold II, failed to whitewash him, the Belgian Parliament passed a law on October 18, 1908, seizing the king's Free State and transforming it to the Belgian Congo.

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The fundamental law of the colony was established by the Colonial Charter, which placed the territory under Belgian sovereignty but with a separate legal and administrative system. The policy focused on correction of the abuses that caused the annexation to occur. The charter stressed administrative machinery and economic development. Although the Belgian Parliament was the supreme legislature, the colonial governor could make local ordinances that were valid for six months, and the King's ministers made laws by decree. Only major decisions, annual budget and the granting of new concessions, were reviewed by the Parliament. Advisory powers were vested in a Colonial Council made up of experts rather than politicians. Development and stabilization had hardly begun when Belgium became involved in World War I and the colonial system was not in full operation until the 1920's.

Wiedner characterizes the colonial authorities as a three-headed structure: government, business, and the Church, with each holding broad, virtually autonomous power in its respective sphere. The government concentrated on development of infrastructure, regulation of labor supplies, and maintenance of order. Economic development and industrial production were directed by the concessionaires. Educational services that related to their progress were placed with the Church.

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13 May be found in: Jean Stenger, Belgique et Congo: l'élaboration de la Charte Coloniale ("Belgium and the Congo: the elaboration of the Colonial Charter") (Brussels: La Renaissance du Livre, 1963), pp. 229-36.

Industrial and mining concessions have been more important than the agricultural schemes. European development of the copper reserves did not begin until 1911 and the first diamonds were produced two years later. Both were essential to the interlocking of colonial capital and development. By the end of World War II the profits of all concessions were equal to one-seventh of the Congo's annual gross national product. The lack of adequate transportation remained an impediment to agricultural development.

The emphasis upon economic development succeeded remarkably well, producing an African standard of living possibly higher than any other non-white population in Africa.

The period between the wars saw the extension of government administration. During this period also there were founded a number of the mission posts in which developed the secondary schools being studied. The authority of the tribal chief was used for government administration and the government posts (and after them the mission posts) from which centers often grew were established near the seat of the chief's rule. Wembo Nyama, Kapanga, and Sandoa are examples of this for interior posts. Other centers grew along the rivers, particularly at terminal points of which Lodja and Kindu are examples.

Elisabethville, now Lubumbashi, had been established by Wangermee in 1910 on the Lubumbashi River in the extreme southeastern section of the territory. This center grew with the development of the mining industry into a city of nearly half a million at its zenith just before independence came in 1960. Other urban centers related to the mining industry which are in the study area are Likasi and Kolwezi. The growth
of these centers came as a result of migrations from the interior areas of people who took work in the cities.

Social legislation for the colony required that work be contracted before the worker took residence in the city and the employer was responsible for adequate housing, either in actual housing provided or in paid allowance. Salary included a family allowance varying according to the number of children. This social legislation meant that the families came to the urban centers in contrast to the pattern of other African areas where only the males moved to the mining areas. The exigency for educational facilities for the children grew in the period between World War II and independence in 1960, and the missions were under great pressure to meet these demands. As will be recalled, the comity agreements among Protestants assigned the mining area to the Methodist Mission.

It was also in the cities such as these that the first dissatisfaction with the colonial system was manifest. Even though the economy has boomed and living conditions were unprecedentedly good, African discontent grew. An earlier religious agitation by followers of Simon Kimbangu had been stifled in 1921. Although not directly nationalistic, the new church encouraged African dissatisfaction which expressed itself in reaction to foreign rule and, although the movement was suppressed, roots continued in separated areas of the territory.

But the club activities for Africans of a recreational nature and for social services that had been encouraged by the Belgians in urban centers soon turned to discussion of working conditions, job opportunities, race, regional pride, the potential of politics. Added to this was a split in colonial power when a demand of white settlers for voting rights was denied plus the inconsistency between Brussels authorities and Belgian officials in Congo and a polarization of Protestant, liberal Catholics, and the Minister of Colonics against the long-preferred traditional Catholics and the state-supported Catholic school policy.

Following the founding of the University of Louvanium in 1956, Congolese published their first journals and organized their first political parties. The first and strongest movement was among the Bakongo tribe of the lower Congo, a regional party later known as ABAKO. The only other widespread early movement and sole advocate of strong national unity was the MNC (Mouvement National Congolese). The municipal elections authorized in the three largest cities in 1957 marked the emergence of authentic political parties. Three events of 1958 stimulated the movement toward political determination: the granting of independence to the French Congo territory across the Congo River; the visits of numerous Congolese leaders to the Brussels World's Fair; and the permitted attendance of a Congolese delegation headed by Patrice Lumumba to the All-Africa People's Conference in Accra.

The year 1959 opened with riots in Leopoldville when Belgian authorities banned a meeting of the ABAKO party and forty-nine were killed. The Belgian government immediately made announcement of
recognition of the right to independence of a united Congo and set a
time-table of several years for establishing democratic institutions up
to a provincial level. By October, the same authorities announced that
a Congolese central government would be set up the following year. Upon
their demands, Congolese political leaders were convened for the Round
Table Conference in Brussels in January, 1960; the date of granting
independence was fixed for June 30, 1960, an interval of less than six
months.

During the period interest was growing in all parts of the
territory. Stimulated by the elections and with a weakened administra-
tion by the Belgians, old animosities between tribal groups surfaced
and, particularly in the section of the present study, fierce tribal
warfares raged. Although other groups were involved, the most widely
affected area was near Luluabourg between the Lulua and Baluba tribes.
Traditionally, the Luluas were the land holders; elections had given the
Baluba's power in the same territory and such was not to be tolerated
by the landowners. This same phenomenon manifest itself in widely
scattered areas but always with the aspect of the landowners ejecting
the other groups from among them.

Three of the designated leaders of national importance during
the pre-independence period and following were known in the areas
related to the schools of the Methodist Church. Patrice Lumumba was
born a short distance from the post at Wembo Nyama and had attended some
years of primary school at this post before being dismissed for disci-
plinary reasons. Moise Tshombe and Jason Sendwe, though in opposition
politically in their own province, had been classmates in a Methodist
school of post-primary level in the 1930's, a fore-runner of the present school at Mulungwishi. Both of these men, who held positions at the national level, had been lay members of the Southern Congo Annual Conference of the Methodist Church. (At the Round Table Conference of Brussels in January, 1960, it is reported that Mr. Tshombe, when complimented on his qualities of poise and ability to articulate in the presence of the white leaders, commented that he had the opportunity to develop such skills as a member of the Annual Conference of the Methodist Church.)

Independence came on June 30, 1960, with Patrice Lumumba of the MNC as Prime Minister and Joseph Kasavubu of the ABAKO as the President and with an uneasy calm. This was followed within two weeks by army mutinies, flight of European technical personnel, secession of the Katanga (copper) and South Kasai (diamonds), and a call for United Nations military assistance. This UN regime was to continue until June 30, 1964.

It is difficult to imagine the disruption and, at periods, paralysis that took place in the society during the early years of the freed nation. Feeling ran high against the Belgians and a majority of resident Belgians fled, leaving a vacuum for any leadership in a territory where economic development was of a paternalistic style with no preparation for self-government and with less than twenty college graduates in all of the nation. UNESCO agents were brought in to give counsel and guidance at the same time that UN military personnel formed an authority for a situation in anarchy.

There were months when conditions were such that national church authorities advised the departure of expatriate workers. The secondary
schools had to be handed over to recent secondary school graduates who shouldered the responsibility courageously if with limitations. Demands for schooling were strong and secondary schools were appearing for the first time at numerous posts despite the dearth of personnel and supplies.

Of particular significance for the area of this study was the troublesome secession of the Katanga. No direct communication and transportation existed between the Katanga and the rest of the Congo; all goods and correspondence had to be sent out of one territory to another country in order to be forwarded to the other territory. Students from the Katanga who had been attending Union Secondary School Katubue now had to remain in the southern province and be placed in schools in the Katanga; a class was created for upper classmen at Mulungwishi which in 1960 was just changing from the teacher training option to the general secondary school for university preparation. Boarding departments were maintained with difficulty because of the limitations of transportation and of products except for relief supplies that were sent by world agencies.

If physical conditions were poor, the psychological atmosphere offered even less that would be conducive to the learning process. Fear for family from whom separated, fear of aggression from a neighboring tribe, fear of national soldiers who pillaged the land, fear of foreign military personnel of the United Nations and continuing hatred for Belgians and in some areas for all Europeans, affected all people but were intensely disruptive of school morale.
By 1962, conditions had begun to show some sign of stabilization, the Reform in Education had projected the new junior high school, and expatriate personnel, who were needed to operate these as well as the growing number of secondary schools, were furnished through UNESCO, French Technical Aid, Belgian Technical Aid, and various church-related programs. For most of these types of personnel, the arrangement was via the national government offices of education. Assignments were usually made to centers which had a greater political and economic stability than isolated rural areas. This added to the reason for young students to flood the centers to attend classes and live under whatever conditions, or lack of them, existed.

By 1964 a number of factors were at work on the national scene. Parliament had been dismissed indefinitely in September 1963. Disillusionment with independence and its potential ran high. Social stratification had taken place as a few had moved into government positions with salaries and fringe benefits of enormous scale as compared with the income of the mass of people. The cities, particularly the capital, were devouring the bulk of enormous amounts of foreign aid and with little benefit to those outside the cities. Payment of salaries, including salaries of teachers, fell behind several months, precipitating strikes in many regions and in most sectors of education. The United Nations military aid was scheduled for withdrawal by June 30, 1964.

Early 1964 began a year of rebellion in widespread areas against the ruling government, especially those who were seen as its agents, the educated classes and expatriates. There was known to be military aid to the rebel leaders from forces outside of the United Nations, notably the
People's Republic of China. First manifestations were in the Kwilu area of the southwest in February. Forces concentrated in Kivu and north-eastern Katanga and winged out to overrun at least one-third of the territory at their strongest point, moving in as national army troops retreated before them and with promises of utopia to a dispairing population. At the height of their advances, Tshombe was summoned to be Prime Minister and he rallied forces and aid to push back the Simbas, as the magic-laden rebels were widely known.

The area of both the Central Congo and the present North Katanga Conferences were under the rebel domination for a period of several months. The whole fabric of society in these areas was shredded by events of this occupation, the anarchy that came with their retreat, and the advance of the national army. Loss of life and property concentrated on educated leadership and youth. Schooling was totally disrupted for periods of weeks and existed at other times in these ravages of war and occupation.

Parliamentary elections took place in 1965 and Tshombe's CONACO party gained a strong majority across the Congo. A new constitution designated more power to the Office of President and less to the Prime Minister; thus, Tshombe was in line for the Presidency. Kasavubu (ABAKO) had been the President, a titular office, from the time of independence in 1960, and expected to continue with the same office under the new constitution. Kasavubu dismissed Tshombe as Prime Minister and asked Kimba, head of the BALUBAKAT, to form a new government. But with Tshombe's party in majority, the Parliament would not confirm Kimba's government. In this kind of stalemate, Mobutu, a general in the army
who had been on the national scene in 1960-61, took over the government in a coup d'etat in late November 1965, declared himself President, named General Mulamba as Prime Minister, declared his government in power for five years, and adjourned the Parliament.

Elections were promised at the end of five years, a policy called "roll up your sleeves" put emphasis upon renewal through manual labor, and new emphasis was placed on agricultural development. However, this was a military regime with ruthless treatment of any opposition. The diversity of political parties was annulled by the formation of a single party, that of Mobutu. On May 20, 1967, the MPR (Mouvement Populaire de la Revolution) party was born by the Manifesto of Nsala which issued a position of positive neutralism with emphasis upon order and national unity. The stated objectives of the party were economic independence, strengthening of the central authority, restoration of international prestige, and the social and economic development of the Congolese people. This is summarized in the President's slogan widely publicized in the territory: Peace, Justice, Work.

Great effort produced a youth auxiliary of the party with a strong potential in control and loyalty to Mobutu. Each school was required to have a local unit of the JMPR (Youth of MPR). The promised elections were held in November 1970 during the field visit. Prior to elections, authorities at one school location were made to understand that there should be no manifestation of opposition if state diplomas were expected to be granted to that institution for the current school year.
University students realized that the election in this one party system was a sham but only a few felt strongly enough to manifest any opposition. Among the general population, approval seemed to be widespread with satisfaction in what had been accomplished during Mobutu's administration and a tired people with yet vivid memories of 1964 were ready to do whatever was necessary for continuing peace in the land.

This 1970 setting of the schools was with a strong military leader heading a central government with emphasis upon the economic development of the nation and social development of its people. The infrastructure had made great improvement, permitting reasonable facilities in a developing nation in Africa. Although there were yet periods when payment of salaries and subsidies bogged down in government red tape, there was probably the greatest stability at any period since the territory became an independent nation.

Geography

Looking at the basic elements of geography should serve to underline the physical conditions in which the set of schools operates. They are located in the central and southern parts of the RDC and in a constellation with axis running roughly north and south. The entire group lies within the area of 22° to 28° longitude east and 3° to 12° latitude south, thus fully in the tropical zone. The altitude varies from 1500 feet at Kindu to 2100 feet at Luluabourg, to over 4000 feet at Lubumbashi and 4800 feet at Kolwezi.

The greater part of the area is covered by savanna or prairie with wooded areas along the streams. See Figure 6. These groves become
Fig. 6.--Map of Zones of Vegetation of Area of Influence of the UMCC Schools in the Democratic Republic of the Congo.

Scale: 1 inch = approximately 150 miles

- Equatorial forest
- Open savannah with wooded areas along the streams
- Wooded savannah
progressively less profuse in moving from north to south. The southern portion is on the edge of the authentic wooded plain while the most northern area is the border of the tropical rain forest. Subsistence agriculture dominates the north and central areas with cash crops of coffee, rubber, rice, palm products, cotton, bananas. The southern extreme is part of the Copper Belt of central Africa with rich deposits of distinguishable types of copper ore as well as cobalt, uranium, zinc, and minimal pockets of coal. Here agriculture is limited to vegetable gardening by means of irrigation as a cash crop. The diamond mines are in the portion between the Central and Southern Congo Annual Conference.

The climate varies because of both the latitude and altitude. The northern areas at the edge of the rain forest and a high plateau with headwaters for several tributaries of the Congo River is typically tropical; the temperature ranges between 65°F and 90°F (average 77°F) with elevated relative humidity (80%) most of the year. In contrast the southern extreme is influenced by both a more southern latitude and a much higher elevation on the Katanga plateau. Here a dry season of five to six months (mid-May to late October) produces no precipitation and cooler temperatures; early morning frost may be observed in mid-July. Temperatures can be extremely uncomfortable at the change of season in late October but even during the rainy season (November to mid-May) the humidity is less than nearer the equator (66%) in part because of the elevation. The average temperature for this section is 69°F.

For intermediate points the period of rainfall and the temperature range vary between these outside limits and are principally related to the latitude. Annual rainfall in all areas is more than 40 inches
and can be as much as 60 inches in the northern extreme. Electrical storms are often a feature of the tropical rains, particularly at given seasons. Fierce winds may accompany the rain storms and an almost continuous stiff breeze characterizes the dry season.

This area is crossed by rivers flowing both north and west to become parts of the Congo River. The Lulua, the Sankuru, and the Lukenie flow westward, while the Lomami and the Lualaba flow north. The Sankuru is part of a system that is directly navigable to the river port of Kinshasa. Rapids on the Lualaba below Kindu have necessitated a railroad link from Ponthierville to Kisangani in order to transport goods and persons around them to the thousand miles of navigable water from Kisangani to Kinshasa. Other railroads run from the southern border through Lubumbashi and branch to the west through Angola to the port of Lobito and to the north through Kamina and Luluabourg to Port Francqui, a river terminal for boats from Kinshasa. Another part makes a fluvial rail link from Kamina with Lake Tanganyika at Kalemie. Of the 3,000 miles of railway in the country about two-thirds exists in this south central area; only a small part of the 8,000 miles of navigable river flows in the region. See Figure 7.

There are 347 airports and air strips with the majority usable only by light aircraft. Air Congo, the only commercial air line, services only 54. There are landing strips at all posts of the mission and single engine aircraft operated by or for the UMCC pass at each place more or less regularly. Air Congo is scheduled for Luluabourg, Lubumbashi, and Kindu several times each week from the capital and other points and for Lodja and Kamina at least once each week. International
Fig. 7.—Map Showing Rivers and Railroad Lines in the Area of Influence of the UMCC Schools in the Democratic Republic of the Congo.
flights from Europe of both Air Congo and Sabena (Belgian) terminate in Lubumbashi after calling first at Kinshasa. Limited air schedules are maintained between Lubumbashi and Zambia to the south.

Even though there are major routes that cross the area both north and south and west to east, the only paved road outside of the centers is the section of about 300 miles from the Zambian border through Lubumbashi and Likasi to Kolwezi in the mining section. Some bridges cross the lesser streams along the unpaved routes but at many places the river must be crossed by pontoon type ferries, sometimes with the aid of a cable.

The People and Their Culture

The people inhabiting the RDC are generally of bantu stock, a negro type of average physical build and with skin coloring varying from jet black to warm brown shades. In the northeastern section there are peoples of nilotique stock, brown but with slender build and much finer features. A few pockets of pygmoid types remain with the true pygmy population concentrated in the Ituri Forest region of the northeast. Those found in the region under study are bantu of several differing tribes and at least one pocket of the pygmoid types occupy a region in the extreme north of the area. Not more than one percent of the population is non-African of which most are western European, largely Belgian with Portugese and Greeks forming a commercial class along with some Indians and Pakistanis.

The population is relatively sparse with an average of 18 to 19 persons per square mile but with the density in half of the area of the
nation at less than three persons per square mile. Although two-thirds of the population resides in rural areas, 80 percent of the rural inhabitants live near transportation routes or mining operations.

The basic social units of the population are tribes or clans, usually the grouping of those descended from a common ancestor. The tribal identity is paramount and many languages have no word to distinguish the nuclear family and the tribe. Each tribe has its corporate structure with its own identity and rights separate from that of the individual. Property is usually held in common by the tribe, common ritual helps to build cohesion, and one person is spokesman for the group. The individual depends on the group for symbols of identity, for economic resources, for defense against outside attack as well as protection of his rights. Some groups are both patrilineal and patrilocal while others are matrilineal and patrilocal.

Marriage is an alliance between kin-groups for the purpose of procreation. The alliance is confirmed by a monetary exchange by the husband's group to the wife's group, the bride wealth. Women have a major, though subservient, role in the society: to bear children for the family and kin-group, to manage the household, and to cultivate the fields. The right to sit and speak in councils was traditionally granted to a man only after he had become the father of a child. The child is the true wealth of the family and this cultural importance for care of the child has only enhanced the success of efforts of both educational and health facilities.

Most groups hold a belief in a high god creator who is the ultimate cause of all things and whose good will is important for the
maintenance of life. This deity is the highest among the spirits and all groups believe in spirits—both spirits of the deceased who remain a part of the tribe and those identified with natural phenomena. Widespread is the belief in the power of magic and the ability of some to control and direct these powers. Witchcraft and sorcery are viewed as the cause of all one's misfortunes, including illness and death.

Among the social values held in common by most Bantus are cooperation, generosity, hospitality, and respect for age and authority. The family has been the informal institution for acculturation of the child as well as for vocational aspects of gardening, hunting, fishing, building, smithing, and the use of medicine.

Groupings in the traditional setting were in small villages; nowhere in this area are there indications of villages of more than a few thousand people. The kinds of structures for living differ from tribe to tribe and the material used varies with what is available in the area but usually poles, vines, and mud are combined for the main structure with a roof made of grass. Often window openings and doors are small and kept covered to shield from the entrance of spirits into the dwelling. Today some dwellings of sun-dried brick and metal roofs are seen even in rural villages and often the metal roof may be used on the mud and stick building. Urban structures of permanent materials are similar to any used in warm climates.

The traditional economy was agricultural subsistence with the women doing a large share of the cultivation. Today, the small farmer gains subsistence by a cash crop: rubber, rice, cotton, coffee, or
palm products. A few areas have cattle herding, but south of the Tsetse fly area.

An average diet of 2,370 calories daily may consist of 80 percent starches and fats with high protein deficiency. In this region the basic diet is either cassava bread or rice with a green vegetable like spinach, beans or peanuts, and some fruit. Both common and tropical diseases are present including malaria, leprosy, venereal disease, malnutrition, tuberculosis, sleeping sickness, and parasitic diseases. Life expectancy is 37 to 40 years of age. The birth rate is 45/1000 but with regional fertility differences. Urban mortality rates are less than the rural due to differences in age and availability of medical facilities.

In the south central area from which the set of schools draws its enrollment, there are as many as 30 tribes with at least one distinct language expression for each group. The major groups are the Baluba, the Lunda, the Batetela, the Basonge, the Tshokowe, the Lulua, and the Bemba. Pre-colonial traditions indicate a great deal of ethnic rivalry among the groups and animosities from these roots have played a part on the recent scene in the area. Notable also is a marked difference in the degree to which each tribe accepts modern ideas and institutions. The Baluba have been notable in their high degree of acceptance of new ideas and modernization.

Education along with urbanization are two forces that have had a great influence on the social solidarity of the individual and his group, often an influence that weakens the tie with the customs of the
traditional society. Particularly in urban areas new values and customs are evolving.

The Methodist Secondary Schools

These are the schools that are studied by this investigation:

Central Congo Conference at Wembo Nyama, Lodja, Kindu and Luluabourg;
Southern Congo Annual Conference, Mulungwishi, Sandoa, Lubumbashi and Kapanga; North Katanga Annual Conference, Kamina; and Union Secondary School Katubue, a cooperative project with the Presbyterian Church. See Figure 8.

These schools are a part of the Protestant sector of national education. A number of different curricula are in function with government programs followed throughout; teachers' salaries are paid by the government as well as other fundings for tuition and boarding fees.

These then are a group of secondary schools for which the UMCC has assumed management through certain legal agreements with the government as a non-profit organization.

The schools under study form four groups according to level, location, and whether a boarding department is included: (See Table 5)

(1) those with six years, in urban or semi-urban location, with a boarding department (6-U-B) include Katubue and Mulungwishi; (2) those with six years, located in a rural area, with a boarding department (6-R-B) are Lodja, Sandoa, and Wembo Nyama; (3) those with four years or less in urban centers with no boarding department (4-U-NB) are Kamina, Kindu, Lubumbashi, and Luluabourg; (4) those with four years or less in a rural area with a boarding department (4-R-B) of which the only one is Kapanga.
Fig. 8.--Map Showing Location of Schools of the UMCC in the Democratic Republic of the Congo, 1971.
<table>
<thead>
<tr>
<th>School</th>
<th>Level</th>
<th>Location</th>
<th>Boarding Department</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 Years</td>
<td>4 Years or Less</td>
<td>Urban or Semi-urban</td>
</tr>
<tr>
<td>Kamina</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Kapanga</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Katubue</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Kindu</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Lodja</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Lubumbashi</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Luluabourg</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Mulungwishi</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Sandoa</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Wembo Nyama</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
6-U-B

Each of these is located less than 35 miles from a large commercial center and also on the railroad from Lubumbashi to Port Francqui. This location has been an influential factor for the functioning level of school, boarding department, and staff. Necessary supplies can be obtained locally and the proximity of the railroad aids outside shipments. The location is psychologically conducive to attract and maintain expatriate personnel as well as the better educated Congolese. At present both of these posts are primarily general educational centers without other aspects of church development such as hospital, press, or agriculture work. In recent years each has been accorded priority by the UMCC for church teaching personnel as well as attracting technical assistants of other agencies. Each has a student body of great tribal heterogeneity.

6-R-B

These institutions are each located on a mission post in a rural, extremely isolated area. Excepted might be Lodja, which has air service scheduled one day each week. They have each evolved from post-primary teacher training sections and each is a part of a center for diversified types of church work. They are located at points where goods and supplies, for example, shipped from a national depository in Kinshasa, come to a river or rail terminal at least 125 miles from the post. From this point they must be picked up by truck and the very isolation makes for few running vehicles in the area. The rural setting does lend itself for using local products, particularly for boarding department use.
Adequate housing, particularly for teachers, presents a problem. Tribal homogeneity is great, particularly at Lodja and Wembo Nyama.

4-U-NB

All of these schools have been begun relatively recently and are each located somewhat on the periphery of a fair-sized town or city. The students are drawn from the local population as well as those who have left the rural area to live with a relative in the city in order to have an opportunity to go to school. With places in secondary school still at a premium, a student may travel across town ten miles by foot or bus daily for the opportunity. At Kindu a dormitory is maintained at the post but no provision is made for a boarding department. At no place was an after school study hall maintained, or provision made for a midday meal. As anticipated, tribal heterogeneity is great.

4-R-B

Although only one such school was visited, indications are that several more of these may evolve in the near future. The general problems are the same as for 6-R-B except that there has been no precedent of a post-primary institution and thus creation or take-over of facilities is necessary. At Kapanga there had been a take-over of primary school facilities for both school and boarding department but plans were under-way for erection of a new school building. This one and others evolving have the refreshing "do-it-ourselves" aspect with high local interest in the project. A type of administrative council already was in function under the leadership of the local paramount chief.
Hereafter the following codes and corresponding names of schools will be used interchangeably.

<table>
<thead>
<tr>
<th>Code</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-U-B K</td>
<td>Katubue</td>
</tr>
<tr>
<td>6-U-B M</td>
<td>Mulungwishi</td>
</tr>
<tr>
<td>4-R-B K</td>
<td>Kapanga</td>
</tr>
<tr>
<td>6-R-B L</td>
<td>Lodja</td>
</tr>
<tr>
<td>6-R-B S</td>
<td>Sandoa</td>
</tr>
<tr>
<td>6-R-B WN</td>
<td>Wembo Nyama</td>
</tr>
<tr>
<td>4-U-NB Ka</td>
<td>Kamina</td>
</tr>
<tr>
<td>4-U-NB Ki</td>
<td>Kindu</td>
</tr>
<tr>
<td>4-U-NB Lb</td>
<td>Lubumbashi</td>
</tr>
<tr>
<td>4-U-NB Ll</td>
<td>Luluabourg</td>
</tr>
<tr>
<td>6-U-B I</td>
<td>IPOC Lycee</td>
</tr>
</tbody>
</table>

Against this backdrop of elements of the historical development of education and of the United Methodist church in the Congo, of the appearance and development of an independent nation, of both physical and human factors of geography together with the settings of the secondary schools, the assessment now moves directly to the results of the investigation.
CHAPTER III

STUDENTS

The beginning of schooling in Africa by mission groups certainly had as its purpose the teaching of reading and writing for helping the person to expand his study of the Bible but this narrow purpose has been broadened until at present it includes a concern for the total development of the young person. The Special Education Committee of the UMCC stressed this broad purpose in its 1971 formulation of the goals and objectives of the UMCC as related to national education.

In order for education to be complete, it must consider the whole person. Therefore, education should include the following aspects: religious, social, intellectual, physical, and artistic.

Who are these young people for whom the UMCC attempts to provide an educational experience? How do they attain this secondary level of schooling? What is academic life like for them? How do they compare with other students in the country as seen by comparison on national exams? What happens to them upon completion of this level of schooling? What are the social aspects related to education? How did the groups of the same level at the different schools of the UMCC compare academically with one another at the time of the study? These are some of the questions to which answers can be shown as the study moves to an examination of the pupils in the UMCC schools.
The students enrolled in the secondary schools of the UMCC are entirely of African origin and represent probably as many as twenty different tribal groups. These groups have a great deal in common in the bantu background but do have distinguishing features of which the most important as related to schools is the language identification. The initial enrollment in the schools for 1970-71 was 2,285 students of whom 436 were girls, (See Table 6 for distribution), thus reflecting the cultural significance of the place of women and girls in society. At the primary school level about one in three are girls. This percentage of girls in the UMCC secondary schools, 19 percent, represents the same percentage as the national enrollment for the year 1967-68.16

Of the total number enrolled 1,239 or 53 percent were enrolled in the junior high school, or cycle d'orientation. Although this was less than the national rate of 59 percent, there are three classes of junior high school level, maintained by the UMCC in conjunction with primary schools but not funded by the Board and therefore not included in this study, whose enrollment if added to the above would make the percentages more nearly the same.

At Lodja and Wembo Nyama the school population is very homogeneous with the greatest percentage from the Atetela tribe. Kapanga, in the Lunda tribal area, has a high percentage from that group. Otherwise the schools have a heterogeneous mixture of tribes represented by the students.

16 F. El Boustani et P. Mambe, L'enseignement au Congo: analyse de la situation actuelle; previsions des effectifs jusqu'en 1975 ("Education in Congo: analysis of the actual situation; prediction of enrollment until 1975") (Kinshasa: IRES, Universite de Louvanium, 1969), Table 9, p. 32.
## TABLE 6

**Enrollment of UMCC Secondary Schools in the Democratic Republic of the Congo by School, Level, Section, and Sex, September 1970**

<table>
<thead>
<tr>
<th>School</th>
<th>1 CO</th>
<th>2 CO</th>
<th>Section</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>T</td>
<td>M</td>
<td>F</td>
<td>T</td>
<td>M</td>
</tr>
<tr>
<td>Kamina</td>
<td>74</td>
<td>18</td>
<td>92</td>
<td>75</td>
<td>13</td>
<td>88</td>
<td>38</td>
</tr>
<tr>
<td>Kapanga</td>
<td>90</td>
<td>22</td>
<td>112</td>
<td>46</td>
<td>2</td>
<td>48</td>
<td>47</td>
</tr>
<tr>
<td>Katubue</td>
<td>32</td>
<td>11</td>
<td>43</td>
<td>35</td>
<td>3</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td>Kindu</td>
<td>25</td>
<td>15</td>
<td>40</td>
<td>35</td>
<td>5</td>
<td>40</td>
<td>32</td>
</tr>
<tr>
<td>Lodja</td>
<td>45</td>
<td>0</td>
<td>45</td>
<td>35</td>
<td>6</td>
<td>41</td>
<td>18</td>
</tr>
<tr>
<td>Lubumbashi</td>
<td>68</td>
<td>12</td>
<td>80</td>
<td>78</td>
<td>2</td>
<td>80</td>
<td>32</td>
</tr>
<tr>
<td>Luluabourg</td>
<td>17</td>
<td>22</td>
<td>39</td>
<td>30</td>
<td>9</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td>Mulungwishi</td>
<td>32</td>
<td>10</td>
<td>42</td>
<td>34</td>
<td>9</td>
<td>43</td>
<td>29</td>
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<td></td>
</tr>
<tr>
<td>Sandoa</td>
<td>37</td>
<td>3</td>
<td>40</td>
<td>30</td>
<td>2</td>
<td>32</td>
<td>29</td>
</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wembo Nyama</td>
<td>38</td>
<td>8</td>
<td>46</td>
<td>27</td>
<td>12</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

1 CO, 2 CO, 3, 4, 5, 6 columns represent male, female, total, and sections of Pedagogy, Science, Literary, Science, Pedagogy, and Social Fam. respectively.
The students are early and maturing adolescents with much of the basic developmental characteristics of this age for any human person. The junior high classes have as much diversity of level of physical development as any section in the West with the later maturing boys in great numbers along side girls with more advanced physical maturity. These students are younger in contrast to the late adolescents of ten years ago who occupied the classes when the selection process allowed 500 examinations for taking in fifty students. Typical problems of discipline related to the younger adolescent are observed among present day students that were rare when the students entered at a later age and with greater competition not only to enter but to stay in school. Cultural mores are an inhibiting force on the expected heterosexual interests of this age group but more freedom is exercised in urban and/or heterogeneous groupings.

To arrive at the junior high level, the students have completed six years of primary school, the curriculum for which is shown in Chapter II on Table 3. The present regulations prescribe the use of French in the primary schools from grade one. The actual practice of this is rare except for a few centers. In practice the primary teaching is usually done in the mother tongue or in the urban areas of the Southern Congo Conference in Swahili, the trade language, with some approach to French later. Even if the requirement were attempted the result could not but be poor with the quality of primary teachers as it exists. Roughly half of those people in charge of primary school classes have no pedagogical training, about one-fourth are graduates of a teacher training program dating from pre-independence which was a two-year course
following five years of primary school, and another one-fourth are more properly trained as diplomaed teachers from a course of four years following seven years of primary school, or of the present program of the normal high school program. Even for those with the proper pedagogical training the quality of the French that they have acquired has been diluted by several generations of poor quality language instruction in the teacher training sections. In the very best circumstances the student has a large obstacle to overcome to have acquired sufficient French to follow all classes at the post-primary levels in French.

The very high rate of failure in the first year of junior high school comes as a predictable result of the lack of French comprehension on the part of the student upon completing six years of primary school. With the exception of Mulungwishi, the failure rates during the first year range from 30 to 50 percent. (See Table 7.) Mulungwishi has continued to maintain some form of selection in the face of regulations that require that a student be accepted if he presents a primary school certificate.

The classroom experience in the RDC differs from western practice; classes in a tropical country usually start at an early hour in order that the prescribed program can be completed for the most part in the portion of the day before noon. The usual time to begin is at 7:00 a.m. but some classes in physical education may begin earlier and at some posts the flag raising ceremony with the singing of the national anthem precedes the first class hour. A typical schedule is included as Table 8. Such a schedule provides no time for supervised study hall. However at all of the six-year institutions study hall was maintained,
| School        | 1 CO E | 1 CO P | 1 CO F | 2 CO E | 2 CO P | 2 CO F | Section   | 3 E  | 3 P  | 3 F  | 4 E  | 4 P  | 4 F  | 5 E  | 5 P  | 5 F  | 6 E  | 6 P  | 6 F  |
|--------------|--------|--------|--------|--------|--------|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|
| Kamina       | 84     | 44     | 40     | 94     | 70     | 24     | Pedagogy  | 37   | 19   | 18   |      |      |      |      |      |      |      |      |
| Kapanga      | 77     | 50     | 27     | 42     | 25     | 17     |           |      |      |      |      |      |      |      |      |      |      |      |
| Katubue      | 42     | 21     | 21     | 39.2   | 29     | 10     | Science   | 36   | 29   | 7    | 32   | 31   | 11   | 18   | 13   | 5    | 15   | 15   | 0    |
| Kindu        | 50     | 34     | 16     | 45     | 37     | 8      | Literary  | 30   | 14   | 16   | 14   | 14   | 0    | 18   | 17   | 1    | 9    | 9    | 0    |
| Lodja        | 41     | 32     | 9      | 33     | 29     | 4      | Science   | 28   | 20   | 8    |      |      |      |      |      |      |      |      |      |      |
| Lubumbashi   | 97     | 47     | 50     | 76     | 43     | 33     | Commercial| 25   | 19   | 6    | 22   | 20   | 2    |      |      |      |      |      |      |      |
| Luluabourg   | 44     | 23     | 21     | 31     | 18     | 13     |           |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Mulungwishi  | 36     | 34     | 2      | 37     | 35     | 2      | Science   | 27   | 19   | 8    | 21   | 17   | 4    | 9    | 6    | 3    | 9    | 4    | 5    |
| Mulungwishi  | 36     | 34     | 2      | 37     | 35     | 2      | Pedagogy  | 18   | 16   | 2    |      |      |      |      |      |      |      |      |      |      |
| Mulungwishi  | 36     | 34     | 2      | 37     | 35     | 2      | Soc. Fam. | 15   | 15   | 0    |      |      |      |      |      |      |      |      |      |      |
| Mulungwishi  | 36     | 34     | 2      | 37     | 35     | 2      | Pedagogy  | 18   | 16   | 2    |      |      |      |      |      |      |      |      |      |      |
| Sandoa       | 39     | 25     | 14     | 25     | 25     | 0      | Science   | 32   | 20   | 12   | 36   | 24   | 12   | 12   | 12   | 0    | 28   | 24   | 4    |
| Wembo Nyama  | 48     | 25     | 23     | 43     | 28     | 15     | Pedagogy  | 33   | 28   | 5    |      |      |      |      |      |      |      |      |      |      |
# TABLE 8

**DAILY CLASS SCHEDULE, UMCG INSTITUTE Brinton**

**SANDA, 1970-71**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-</td>
<td>French</td>
<td>French</td>
<td>Phys. Ed.</td>
<td>French</td>
<td>French</td>
<td>French</td>
</tr>
<tr>
<td>7:30-</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
</tr>
<tr>
<td>8:00-</td>
<td>French</td>
<td>French</td>
<td>Geography</td>
<td>French</td>
<td>French</td>
<td>French</td>
</tr>
<tr>
<td>8:30-</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
</tr>
<tr>
<td>9:15-</td>
<td>History</td>
<td>Pedagogy</td>
<td>French</td>
<td>Psychology</td>
<td>Pedagogy</td>
<td>French</td>
</tr>
<tr>
<td>9:45-</td>
<td>History</td>
<td>Pedagogy</td>
<td>Religion</td>
<td>Pedagogy</td>
<td>Pedagogy</td>
<td>History</td>
</tr>
<tr>
<td>10:15-</td>
<td>Physics</td>
<td>French</td>
<td>History</td>
<td>French</td>
<td>History</td>
<td>French</td>
</tr>
<tr>
<td>10:45-</td>
<td>Art</td>
<td>Science</td>
<td>Technology</td>
<td>Technology</td>
<td>Nat. Sci.</td>
<td>Technology</td>
</tr>
<tr>
<td>11:15-</td>
<td>Geography</td>
<td>History</td>
<td>Art</td>
<td>History</td>
<td>History</td>
<td>--</td>
</tr>
<tr>
<td>11:45-</td>
<td>History</td>
<td>History</td>
<td>Math</td>
<td>History</td>
<td>History</td>
<td>History</td>
</tr>
<tr>
<td>12:15-</td>
<td>Music</td>
<td>Geography</td>
<td>Assembly</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1:00-</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**R O O M**

| 2:00- | 6th year | 5th Ped. | All |
| 4:00- | Philosophy | Pedagogy | Sports |

**N.B.**

1. Manual work on Monday, Tuesday, Wednesday, and Thursday afternoon by different classes.
2. Study Hall - 7:30 - 9:30 p.m.
and Mulungwishi and Katubue regulations and supervision were closely adhered to. The four-year schools made no attempt to have study hall even in the afternoon following classes. Such a plan would have been more feasible than making an effort to use the evening hours since most of the students live across town from the school site. The school year is from September to June and divided in three parts. Exams are a part of the completion of each trimester. At the end of certain years there is an oral as well as a written examination. At the end of six years the final examination is administered by the State. This procedure is an attempt to render diplomas with equivalence throughout the country.

Results of the national examination at the end of six years for 1969-70 showed that the following percentages received diplomas and certificates: Sandoa, pedagogy 57%; Mulungwishi, pedagogy 89%, math-physics 28%; Wembo Nyama, pedagogy 85%; Katubue, literary 100%, biology-chemistry 100%; UMCC, average 76%; protestant, average 66%. It should be noted that Mulungwishi had received several transfer students from the math-physics section at Wembo Nyama during the course of 1969-70.

As can be observed in Table 6 most schools are coeducational; at Lodja, a separate section of junior high school is maintained for girls only. The cultural imposition upon girls' participation in mixed company persists to a lesser degree than formerly. Mulungwishi has had a section of junior high for girls in the past. What evidence there is would seem to imply that special supervision of girls in a separate section may have some advantages. An indication of this is the larger number of girls that are enrolled in upper classes at Lodja. Another is the number of
recent girl graduates at Mulungwishi, one of whom is on scholarship overseas.

As an examination of what happens to a student after the secondary school experience is made only limited data are available for follow-up on school leavers, those who complete successfully a certain amount of schooling but without obtaining a certificate or diploma. However, the data on graduates indicate that persons are generally entering the sort of sector for which they are prepared. From the two classes of professional pedagogy following four years of post-primary instruction, all but one of the twenty-five were actually teaching in primary school; the exception was a girl who had taken an office position in the capital city. The high school diploma permits access to higher training or university even though it is granted by a pedagogy section. With only few exceptions of the approximately sixty who had finished the previous year all were either in higher schooling or teaching at the junior high level. Of the twenty graduates of Mulungwishi in 1970, eleven were enrolled in university level studies, eight were teaching, and for one there was no information. The Central Congo Annual Conference tries to exert a moral restraint on those from that area who finish at Union Secondary School Katubue to remain in the area to work in the secondary schools before continuing their own studies. This means that there are some few with diplomas in science and literature who are teaching on a temporary basis before taking up further study.

The life of the student particularly at schools with a boarding department is greatly extended beyond the classroom. Extra curricular
life includes school and community activities, work responsibilities, and boarding department experience including medical care.

Extra-curricular activities varied from none in some urban schools to an array at the 6-U-B schools including interscholastic sports, chorale groups, drama circles, scouts, school paper, church related groups, service projects. All schools had a chapter of the Youth of the Popular Movement of the Republic, mandatory by the government but which faded into little importance after the national election had taken place in November 1970.

Opportunities for heterosexual experiences hardly exist outside of the classroom and extra-curricular activities. Both the UMCC and the culture have held to these limitations. The limitation varies from one locality to another but always there is restraint. Mulungwishi has liberal regulations. Here an evening was set once each month when boys and girls could meet in the social hall of the girls' school to talk or play games under supervision. Katubue girls appeared to exercise a great deal of freedom. However, at Lodja no male person could enter the premises of the girls' compound without special permission from the expatriate in charge. Female teachers in the girls' junior high all lived under these same conditions.

When inquiry was made concerning this strict supervision in the Congo of 1970, the explanation was that the parents demanded this in order to allow the girls to come to school. The teachers mentioned had lived in a house outside the compound and were persistently over-run by male visitors. It seems that neither sex in that culture is ready to deal with western heterosexual freedom. It should be underlined that
this is an area deep in the interior where the cultural pattern traditionally is of male dominance. In such circumstances as the teachers even though a girl would not wish to have a particular man visiting, culture would restrain her in doing anything to discourage his presence.

All students have certain work responsibilities. At day schools these are at a minimum, such as responsibility for classroom janitorial services and care of the exterior grounds. At the boarding schools much more work responsibility is expected. All students care for their own quarters and most departments have a work wheel system for duties for both the dining hall and general dormitory care. These posts require two hours each week for work in gardening and maintenance of the grounds. The latter can be a real task especially in the tropical rainy season.

At the six-year institutions a number of students benefit from financial grants for work related to operation of the school, such as dining hall supervision, librarians, janitorial care of offices and central rooms, and laboratory assistants. Work outside of the school is arranged on a personal basis but the most notable was the large number of girls in the special section at Mulungwishi who worked in the homes of staff personnel.

Medical care of students was assured by the local dispensary or hospital of the UMCC by a type of insurance to which each student contributed. Insurance was not applicable for the treatment of venereal diseases. Care is probably nearer an adequate level than for the general population of the country.

The feeding of students in boarding departments is one of the greatest problems of school life. Funds are limited and most heads of
boarding departments had skill in neither management nor nutritional planning. Three departments provide no food for students before they go to class; one offers a banana sometimes. Meat protein is at an extreme minimum in all departments. A number utilize only limited amounts of vegetable protein i.e. beans and peanuts. Very little fruit was used except in the girls departments at Mulungwishi and Lodja. One department reported many fewer students than the previous year because of the inadequacy of the diet furnished, even by local standards.

One of the most pertinent kinds of information that could be furnished to those involved in the educational planning for the UMCC is some notion of how well the students of the different schools perform academically at a given level. Valid information of this type could at least point to some strengths and weaknesses of the schools as far as this aspect is concerned and would reflect on other aspects indirectly such as finance and administration, staff qualifications and placement, facilities and equipment. From the outset of the study one of the procedures to be incorporated as an integral part was the administration of an instrument attempting to measure academic achievement or performance to all students of all UMCC secondary schools at a given level.

Certain obstacles had to be overcome to be successful with such a procedure: (1) the selection of the instrument, (2) any pupil resistance through ignorance of the procedure or aversion to such method.

The selection of an instrument raised several considerations. It must be kept in mind that the measure needed was for a set of schools in the interior of a developing nation where the subjects are of African culture but where schooling is done in an international language, French.
The ideal would be an instrument prepared for a particular culture and in the language of the given culture but it was soon discovered that because of the number of cultures from which students come, similar in many respects but different as manifest in the language this way was blocked. No instruments have been created at this level in any of the languages used and the investigator did not possess competency for undertaking such a task, although the creation of an instrument in French was a feasibility.

Another method to get around the problem of the numerous cultures would be to employ a so-called culture-free test such as that created by Cattell. It is known that these instruments are dependent upon the factor of perception. Research at the University of Sambia has shown differences in perception between African children and western children. Also, Bitoma points out that such instruments are often dependent upon the experience of modern city life and that perception is influenced by the environmental experience of the person. The majority of the students of the UMCC come from rural background. This type of test was thus eliminated on a basis of validity as well as rationale because they are not a measure of academic achievement.

Therefore, the instrument to be used would have to be in French, the teaching language of the school system of the RDC. From a practical standpoint of the logistics of time and distances involved an instrument

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of the short-answer type, preferably with an answer sheet to provide efficiency in scoring was most desirable. If such were available from the Office of Education in French-speaking countries this could provide a measure even though it had been standardized on European children.

Previous study in Europe provided knowledge that the short-answer test that is so widely used in the United States for an achievement measure is hardly known to the continental European systems of education where great reliance is placed on the use of a jury-type examination which includes an oral portion as well as an essay part. Personal calls at the offices of authorities at the national offices of education in both France and Belgium were received with courtesy and perception of the request but with assurance that very little of this type of testing was administered in their countries. In Belgium it was learned that such an instrument had been created and standardized with Belgian students more than a decade ago when it was used on a very limited basis for scholastic guidance and orientation. To obtain permission from the originator for use of the instrument appeared to be next to impossible at that interval.

Next, the UNESCO headquarters in Paris and the Office of Overseas Liaison of the National Ministry of Education were contacted to determine if such an instrument were in use in any French-speaking African countries. The latter office had a sample of an instrument of this type used in Madagascar but the section on history and geography had national orientation as expected. UNESCO gave counsel to approach the Center for Pedagogical Research at the National Institute of Pedagogy in Kinshasa, RDC.
A contact with Monsieur Robert Tshimanga of that office afforded arrangements for the use of two instruments that he had created, and which he indicates as measures for scoring mental ability. One form was marked for intermediate level and the other for superior. Each had a time limit of thirty minutes. See Appendix A. These were administered to all third- and fifth-year classes respectively and are hereafter referred to as instruments C and A respectively. Results are indicated in Tables 9 and 10.

These instruments were utilized but with foreknowledge that they were not formulated as a measure of achievement but rather of mental ability but were created in the country by a national and had had some use with an urban population. Their validity for use with students of the UMCC is questionable because of the poor comprehension of written French by the population of the interior along with the factor of a time limit, a marked western innovation. The results indicated by the ratio of the means to the total number of questions (C - 19.995/75; A - 17.464/70) only serve to point up the poor results for whatever reasons.

As a last possibility an instrument was created by the investigator. The rationale for this test was a measure for the level of general knowledge which students finishing the junior high level should possess. Knowledge of the prescribed program of the junior high school, experience in teaching in these secondary schools, and acquaintance with the regional and national development, contributed to some respectability to the task of the investigator that otherwise would appear to be absurd.
<table>
<thead>
<tr>
<th>Rank</th>
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<th>Section</th>
<th>Mean (/75)</th>
</tr>
</thead>
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<td>6-U-B-K</td>
<td>Science</td>
<td>29.5</td>
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<tr>
<td>2</td>
<td>6-U-B-M</td>
<td>Science</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>6-U-B-K</td>
<td>Literary</td>
<td>26.4</td>
</tr>
<tr>
<td>4</td>
<td>6-U-B-M</td>
<td>Science</td>
<td>25.6</td>
</tr>
<tr>
<td>5</td>
<td>6-R-B-S</td>
<td>Pedagogy</td>
<td>25.3</td>
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<tr>
<td>6</td>
<td>6-R-B-S</td>
<td>Agriculture</td>
<td>22.0</td>
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<td>7</td>
<td>6-R-B-S</td>
<td>Mechanics</td>
<td>21.9</td>
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<td>8</td>
<td>4-U-NB-Lb</td>
<td>Commercial</td>
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<tr>
<td>9</td>
<td>6-R-B-W</td>
<td>Science</td>
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<td>10</td>
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<td>14</td>
<td>4-U-NB-L1</td>
<td>Pedagogy</td>
<td>13.6</td>
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</tbody>
</table>

Note: Total--n = 408; range--5 - 56; mode--20; median--19; mean--19.995; hand scored.
TABLE 10

INSTRUMENT A--1PN
MENTAL ABILITY--FORM: SUPERIOR
ADMINISTERED TO FIFTH-YEAR CLASSES
UMCC SCHOOLS--DEMOCRATIC REPUBLIC OF THE CONGO 1970-71

<table>
<thead>
<tr>
<th>Rank</th>
<th>School</th>
<th>Section</th>
<th>Mean (/70)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6-U-B-K</td>
<td>Biology-Chemistry</td>
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<tr>
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<td>Literary</td>
<td>22.75</td>
</tr>
<tr>
<td>3</td>
<td>6-R-B-W</td>
<td>Math-Physics</td>
<td>19.9</td>
</tr>
<tr>
<td>4</td>
<td>6-U-B-M</td>
<td>Pedagogy</td>
<td>19.3</td>
</tr>
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<td>5</td>
<td>6-R-B-S</td>
<td>Pedagogy</td>
<td>18.0</td>
</tr>
<tr>
<td>6</td>
<td>6-U-B-M</td>
<td>Math-Physics</td>
<td>16.0</td>
</tr>
<tr>
<td>7</td>
<td>6-R-B-S</td>
<td>Terminal Pedagogy</td>
<td>15.1</td>
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<td>8</td>
<td>6-R-B-L</td>
<td>Pedagogy</td>
<td>15.1</td>
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<td>9</td>
<td>6-R-B-W</td>
<td>Pedagogy</td>
<td>14.4</td>
</tr>
<tr>
<td>10</td>
<td>6-R-B-L</td>
<td>Terminal Pedagogy</td>
<td>12.1</td>
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<td>11</td>
<td>6-R-B-W</td>
<td>Terminal Pedagogy</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Note: Total--n = 194; range--5 - 33; mode--19 - 18; median--18; mean--17.464; hand scored.
Because a major portion of the program of the junior high focuses on instruction in French and mathematics, a portion was devoted to questions related to these areas. General knowledge within the area of history, geography, science, health and nutrition, and savoir-vivre completed the set of fifty questions. Hereafter this instrument is referred to as "B." See Appendix A.

All three instruments were multiple-choice short answer. Practical aspect of limitation of weight because of air transportation had to be considered as well as the number of students (about 600) involved. The three instruments, "A," "B," and "C," were prepared in quantities of fifty in booklet form and coded individually so that the accounting of the booklets could be done efficiently, to be used with separate answer sheets in order that the use of the booklets could be repeated at each school.

The second obstacle that could affect the validity of an instrument in these conditions was the resistance by the subjects because of ignorance or aversion to such a procedure. Therefore the preparation of the subjects for the use of the instrument had importance with respect to both intellectual and emotional factors. These students are not accustomed to the short answer type test. Neither were they accustomed to the investigator but all were equally unaccustomed since it had been six years since the investigator had taught in any of the institutions. The approach to the students was to invite them to think of the procedure as a game in which they participated with all other students of the UMCC at their level. Contact was made with the group previous to the testing itself, usually the day before. An explanation was made as to
why the investigation was going on and who the investigator was, a
former teacher in these schools. The invitation to participate in the
game was given with assurance that the results would have nothing to do
with their success in the school program. Since the students are not
accustomed to this kind of testing, a sheet had been prepared using
multiple-choice questions with obvious responses and of the same answer
form as those to be used with the actual test (See Appendix A). This
sheet was explained at the pre-testing session and the responses were
marked as a group to insure that everyone understood the "way to play
the game." Only letters were used for marking responses which was a
detail of learning in itself. There were few exceptions in following
these instructions at the testing session which followed the next day.

Instruments "C" and "B" were used with the third year at all
schools. "C" had a time limit of thirty minutes and the person always
felt great frustration when time was called and he had read and
responded to only one-third of the total questions, even with assur­
ances that it made no difference how few were completed. Therefore,
"B" was given secondly. For this latter which had fifty questions, an
outside limit of forty-five minutes was allowed and seldom was it nec­
essary to call time because the great majority completed this group of
questions and left the session with a better feeling for the total
experience.

Testing was done at all the UMCC schools except Kapanga where
classes had already been dismissed for a holiday at the time of the
scheduled visit. This is unfortunate because as a newly forming school
the results of the testing in comparison with the other schools could
have been helpful to the local planners. Included in the tabulation of results is the IPOC Lycee in Kinshasa, a girls' school to which Methodist financial contribution has been notable, and for which information was requested by the Board.

Hand scoring was done on all instruments during the field visit. Indications from these results were that of the three instruments "B" or the general knowledge test might yield further statistical information of a useful nature. Item analysis was done on "B" and yielded a mean of 21.42 (/50) for an n of 468 and a standard deviation of 5.25, a Kuder Richardson Formula 20 for reliability of .645, and item difficulty of .572.

The Spearman rank-order correlation coefficient when calculated on two sample schools yielded the following:

1. **6-U-B-M Science:**
   - B and C: .415 (sig. to .02)
   - B and Entrance Exams: .395 (sig. to .05)
   - C and Entrance Exams: .375 (sig. to .05)

2. **6-R-B-W Science:**
   - B and C: .616 (sig. to .001)
   - B and 1st qtr. 1970-71: .437 (sig. to .01)
   - C and 1st qtr. 1970-71: .542 (sig. to .001)

The summary of the means of the various sections is listed in Table 11. The tabulation of the item analysis on "B" of percentage responding correctly to each question is found in Appendix B. Of the fifty questions composing "B" the division by category was as follows:

French 21, mathematics 7, history-geography 12, science 11, health-nutrition 3, savoir-vivre 5. It is noted that the percentage of correct responses to each item is low for all sections but particularly for French and mathematics and the area of health and nutrition. For French
<table>
<thead>
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<th>Section</th>
<th>Mean</th>
<th>Rank</th>
<th>School</th>
<th>Section</th>
<th>Mean</th>
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**Science Sections**

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**Pedagogy Sections**

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**Commerce Sections**

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**Other Sections**

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<td>6-U-B-M</td>
<td>Soc. Fam.</td>
<td>17.5</td>
<td>15</td>
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<td>6-R-B-W</td>
<td>Nurses Aid</td>
<td>16.6</td>
<td>17</td>
</tr>
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</table>
the percentage was only 33 percent which only confirms the obstacle which French comprehension presents for the learning situation.

The greatest obstacle to secondary learning is the lack of French comprehension. This is a product of the primary schools where instruction is theoretically given in French but where less than half the teachers have any professional pedagogical training. Observation during periods of test administration at the third-year level substantiate this handicap of communication in the teaching language. Correct responses to questions of basic points in French grammar averaged only 33 percent.

Knowledge of health, nutrition, and savoir-vivre is meager as shown by responses on the general knowledge instrument:

Example: I. What type of food most helps the body to have energy?

A. carbohydrates C. fats
B. protein D. vitamins

Only 5 percent answered "carbohydrates"; 60 percent answered "vitamins."

Example: II. The condition of elephantitis is associated with the bite of

A. a fly C. an animal
B. a mosquito D. a bird

(Elephantitis is related to filaria carried by a sand fly and seen often in the interior areas.) Only 22 percent responded correctly and even in areas where filaria is endemic, no more than 44 percent responded correctly.

Example: III. What class of train ticket costs the most?

A. 1st C. 3rd
B. 2nd D. 4th

Overall 72 percent responded correctly but at interior posts the percentage was as low as 32 percent.
There is also indication of lack of application of materials to the local situation. This is shown by results on a question of content from the botany program in the junior high school.

Example: IV. Which one of these plants is unisexual?

A. banana  C. palm  
B. avocado  D. papaya

Only 17 percent responded correctly "papaya." (The papaya is both abundant and prolific in the entire area.)

There are noteworthy observations from the rank-order Table 12. 4-U-NB-Ki ranks near the top in many aspects. Its first place position with 6-U-B-K in French is indeed significant. One observation is the fact that a government supervisor had visited 4-U-NB-Ki shortly before the testing period and had purged a large class to leave the regulation enrollment maximum of 35, presumably the most able students. This cannot totally account for the high relative achievement. It is possible that the work of a particular teacher has made a significant difference.

Also to be noted is the fact that 6-R-B-L and 6-R-B-W with low rankings in French are high ranking in mathematics on a relative basis. These are all students from the same tribe. A large portion at 4-U-NB-Ki are also from the same tribe. It could be interesting to research to determine if there is any significant relationship between the achievement in mathematics and the tribal origin.

That 4-U-NB-Lb with an availability of native French speaking expatriate teachers ranks low in French raises some question of quality. Its rank of one in science is also unexpected for a commercial section.

The IPOC Lycee (6-U-B-I) results rank it as near the middle of the group of UMCC schools. This is noteworthy since it is reported to
### TABLE 12

**RANK ORDER OF UMCC SCHOOLS WITH PERCENTAGE OF CORRECT RESPONSES**

**INSTRUMENT B**—ADMINISTERED TO THIRD-YEAR CLASSES

**DEMOCRATIC REPUBLIC OF THE CONGO 1970-71**

<table>
<thead>
<tr>
<th>School</th>
<th>Rank</th>
<th>French</th>
<th>%</th>
<th>Math</th>
<th>%</th>
<th>Science</th>
<th>%</th>
<th>Geography</th>
<th>%</th>
<th>History</th>
<th>%</th>
<th>Savoir-Vivre</th>
<th>%</th>
<th>Health-Nutrition</th>
<th>%</th>
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<td>60</td>
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<td>68</td>
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<td>5</td>
<td>61</td>
<td>4</td>
<td>26</td>
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</table>

**Range**

- (29%–40%)
- (29%–43%)
- (39%–56%)
- (49%–60%)
- (42%–68%)
- (16%–38%)

**Mean**

- 34%
- 33%
- 44%
- 55%
- 57%
- 22%

*Instrument B—General knowledge, created by Norris.

**Sections:** Pedagogy; Commerce; Commerce and Pedagogy; Commerce and Science; Science; Literature and Science; Social-family and Science; Agriculture, Mechanics, Pedagogy; and Nurses Aid and Science.
be an elite school for girls in the capital city. This would only corroborate other findings that the schools in the city of Kinshasa are generally less adequate than those of the nation outside the capital city. (Protestant report.)\textsuperscript{18}

Although "B" was formulated with known limitations which are pointed up in the statistical yield for reliability and validity, the above examples are indications of some areas where further investigation in the field might produce information useful for educational planning.

Perhaps the most remarkable observation about all of the instruments is the fact that the range was relatively small, indicating that there was not an extraordinarily large difference in the performance at the academic level of the various schools as measured by this instrument. In Table 11 with a listing of the various sections the range is 16.6-25.3 but among the university preparatory sections (academic) of the UMCC the range is 23.1-25.3 or only 2.1 (/50) difference of means.

In summary the areas of greatest weakness related to care and performance of students are in the poor comprehension of French and in the care of students in boarding departments, especially in the aspects of health and nutrition. The first is a result of a build-up over an eight-year period of poor instruction in French combined with the fact that it is only the language of the school in most areas. The poor diet

\textsuperscript{18}Eglise du Christ au Congo. \textit{La responsabilité de l'église du Christ au Congo dans la formation du citoyen Congolais} ("The responsibility of the Protestant Church in Congo in the education of the Congolese citizens") (Kinshasa: 1970).
is a factor of both fiscal matters and administrative skills. These should be kept in mind as the study moves to the area of finance and administration.
CHAPTER IV

PHYSICAL FACILITIES

A number of factors influence both the quantity and the quality of the physical facilities of the secondary schools of the UMCC. There are three types of facilities for which responsibility is assumed at most UMCC schools. As would be anticipated, classroom facilities are maintained at all schools but in addition, as in many developing nations all posts in rural areas must have boarding departments for both boys and girls as well as provide housing facilities for the staff related to the school.

Although several of the schools, and particularly those which have developed from former normal training schools, have buildings constructed in the late 1940's, others have facilities constructed with the aid of government subsidies in the late 1950's, and yet others have facilities constructed during the late 1960's. Construction funds have been furnished by supporting churches, largely in the United States but also in Switzerland and Norway, but these funds are usually designated for a particular project.

Before the examination of the existing physical facilities of the UMCC schools some of the factors related to tropical conditions and physical facilities should be brought to the foreground. Following this the study will treat in turn school classroom facilities, classroom
furnishings and teaching materials, libraries, laboratories, sports equipment, agriculture projects, medical facilities, boarding departments, and housing for teachers.

General Aspects

The climate of the tropics takes a heavy toll in wearing down the best structure. Buildings are not always of the same quality when built with local materials and unskilled labor in rural areas in contrast to professional construction available in the larger urban centers. Therefore, it is to be expected that there is true diversity of both the quantity and quality of both buildings and equipment.

Climate prescribes the formula for adequate construction in the tropics as elsewhere. The heavy rainfall necessitates a roof with ample slope and a long overdrop; although in sandy areas where the ground absorbs water quickly the importance of grading is less, at most places it must be incorporated in the planning. Precautions must be taken to equip all buildings with protection against lightning which often accompanies the frequent tropical storm. The orientation of buildings to place windows facing north and south is especially important in the continuous tropical sunlight. Where buildings are not thusly oriented, trees should be planted to form a screen against the direct sunlight. At the same time openings must be sufficiently large to insure adequate lighting with the use of the overdrop of the roof. From physical aspects of protection from the elements, openings do not need glass in most areas. However, in the southern section where the elevation is 4,500 feet, the temperature may drop to 32°F in the peak of the dry season in July. Also, protection of the equipment in a room requires covering of the openings.
with at least screen or wire, often a type of wooden shutter is used which is closed from inside the room. Openings with glass windows are desirable but not always necessary or practical because of the high rate of loss by breakage in transport of glass.

Air conditioning is recommended for laboratory rooms, projection rooms, and auditoriums. Cross ventilation is imperative with the relatively high heat and humidity in much of the area, at least during several months of the year. Heating facilities are not necessary.

The traditional structures in this area are constructed of poles, vines, mud, and grass for the roof. Such a structure endures only about five years with the rain and winds that prevail in the area. This type is termed temporary construction by tropical standards. Construction of sundried bricks with mud or cement as mortar with a grass roof or a metal roof is called semi-permanent and is considerably more durable than the mud-wood structure. A permanent structure is constructed usually of fired bricks or concrete block with concrete floors and a roof of metal or other durable substance.

The framework of all buildings must be securely anchored to the foundation to withstand the high winds that frequently accompany the rain storm. The use of wood must take account of the ever present termites; a hard wood which is termite resistant or which has been chemically treated against termites is the only type that can be used judiciously.

Any permanent construction in this developing country is accomplished with great effort even if adequate funds are available. Generally whatever local materials are available, have been used to the fullest, but about 30 percent of the cost of materials is spent for
materials that must be imported to be available, at elevated prices and irregular supply. Labor, unskilled for the most part, consumes 40 percent of the expenditures for an average project.\textsuperscript{19} This means that a builder has a number of problems in addition to those usual to the trade.

Government regulations are at a minimum with limited directives for classrooms. For a class of 40, the room should be $8M \times 7M \times (3.5M - 4.2M)$ to give $5.4M^3$ volume of air per person, making use of the rectangular form. Dimensions are proportional for a room for 30 persons. The buildings should be constructed in a sanitary area but near enough to a built-up area to be convenient for students although not "near a market or other places lacking in peace and calm."\textsuperscript{20}

Water installations are no problem in the centers but at rural posts, the water supply is furnished by natural waters, either wells or streams. Some posts have developed various form of storage of rainwater. Very few schools have running water.

Sanitary facilities with running water utilize septic tanks or cess pools. Otherwise latrines are used. For secondary schools, suggestions are for two water closets and one urinal per three classes of boys and one water closet per class for girls. Specifications call for placement a minimum of 100 feet from other buildings.


\textsuperscript{20}From notes on the organization and equipment of school facilities furnished by the provincial office of education, Western Kasai, January, 1971.
Electricity is available from public utilities in the cities but when available in rural areas is produced by a generator on a limited basis of two to three hours each evening. Such generators operate on gasoline or diesel fuel of which the availability varies with both the supply and the means of transporting it from terminal shipping ports. There is no natural gas available but butane can be had in tanks. Again the use is dependent on supply and transportation.

Most of the schools are in rural areas where the school buildings are a part of the total mission/church compound. The compound is a land concession which was ceded to the original mission in colonial times and for which negotiation procedures for continuation of its use were made following independence in 1960. The classroom area is usually centrally located with the boarding department located peripherally. In the cities schools are located on grounds of mission concessions or land recently obtained by the UMCC, usually some distance from the center of the city.

Except in Kamina and Luluabourg, professional builders, often construction engineers, have been consulted and usually have supervised the erection of the buildings, and therefore, adequate attention has been given to the special aspects of construction in the tropics mentioned above. The type of material employed varies according to the location; localities that have the proper clay for producing bricks use them, otherwise concrete blocks are made at the post from cement obtained from two producers in the country and with gravel and sand found locally. Any such construction is with great effort when consideration is made of the facts of transportation (most posts at least 125 miles from rail or
river terminal) and labor (totally unskilled except for apprentice type training over a period of years). Although relatively expensive, construction in urban locations can usually be contracted and is accomplished in less time. With these general overall considerations in mind the special case for individual schools, related to particular factors now follows. The data presented at length in this chapter are summarized in Tables 13 and 14.

School Buildings

The orientation of buildings has generally followed the pattern of windows facing north and south but there were two obvious exceptions to proper orientation. These had been built in 1949 with funds and specification of the Fond de Bien-Etre Indigène, a special benevolent fund of the colony. The construction is really a puzzle unless one concludes that the nearby foothills influenced the placement. Modifications to improve ventilation had been made with only minimum improvement. The overdrop of the roof was short and these classrooms were deluged with rain water during the period of the visit. The two buildings opposed each other across a courtyard; trees had been placed along the outside that gave a shade screen on the west side of one building. The other building with larger windows on the west side and facing the court received the hot afternoon sun making those rooms very uncomfortable for afternoon classes. Another poor orientation was that of a building in use at Wembo Nyama where a building, taken over from other uses, was T-shaped with classrooms adjoining inside corners and with very large openings, producing conditions conducive to mutual disturbance by the
| Code: s=satisfactory; ?=questionable; -unsatisfactory; n=does not apply |
|---------------------------------|---------------------------------|---------------------------------|
| Date of Construction | Plot | Classroom |
| Date of Construction | Plot | Classroom |
| Date of Construction | Plot | Classroom |

**Table 13**

**U.K.C SECONDARY SCHOOLS' DEMOCRATIC REPUBLIC OF THE CONGO 1970 CHECKLIST OF SCHOOL PHYSICAL FACILITIES AND MATERIALS**
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<td>girls</td>
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<td>Mulungwishi boys</td>
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<td>girls</td>
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<td>Kapanga</td>
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<td>(both boys and girls used primary boarding facilities)</td>
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<td>Kindu boys</td>
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</table>

Code: s=satisfactory; ?=questionable; --=unsatisfactory; n=does not apply.
classes in these rooms. However, this is a post where a new school plan was projected with an engineer supervising plans and construction.

The plot at Kamina, situated four miles from the center of town, seemed adequate but had little development; however, the distance seemed an obstacle for both students and teachers in a town without public means of transportation such as Luluabourg and Lubumbashi use. This institution was initiated by the recently constituted North Katanga Conference by partitioning a permanent church structure into classrooms. In 1965, temporary structures were erected for additional classrooms, office, laboratory, and boarding department. Except for the replacement of one classroom, little maintenance had been done during the period following until the time of the visit, and this classroom was extremely dark inside even for this type of mudstick walls and grass roof.

A structure built by local national supervision in permanent materials at Lodja had more than adequate height with open space left under the eaves and gables to aid in ventilation at a location about 2° south of the equator on the edge of the rain forest. A real annoyance resulted with a group of chattering birds in residence on the rafters. Although a long palm frond kept handy might have swept them away temporarily, the students appeared less disturbed than the visitor. At the same post, the lower classes were in temporary buildings with very adequate light and ventilation when wooden shutter coverings were open. The foundation for a new plant had been laid at the time of the visit.

The school at Luluabourg had come into being in 1969. Construction underway without professional advice violated a number of the actual considerations. The school was very near an active city street with
classroom buildings separated by buildings housing other activities. The school was disturbed by the community activities and itself was disturbing to local residents. A sharp drop in the terrain behind the building left no space for providing a recreational area or other expansion. The classrooms were exactly one-half as large as the government regulation, very long and narrow, and with no cross-ventilation. Facilities used by the agriculture section at Sandoa were located so close to the livestock run that flies were a real menace during the heat of the day. The director was seeking to work out a solution for alternative classroom space.

Other facilities were in satisfactory condition. Some posts use the plan of a long narrow building housing several classrooms with doors off a veranda 21 along one side of the building and with high windows along the porch-side (See Figure 9 for Lubumbashi). The plan used at Sandoa, a building constructed in the mid-1960's is U-shaped and very satisfactory for a complete plan under one roof. The high windows on both sides effectively eliminated any outside distraction but seemed a bit small. However, lighting had been increased by the insertion of dispersed sheets of translucent plastic roofing, and perforated blocks had been so placed as to enhance ventilation. An advantage of this plan is the possibility of making additions of rooms, attaching to the ends of the "U." Kapanga expected to use the same plan for their growing secondary school. See Figure 10 for the Sandoa school plan and Figure 11 for a plan of the station showing the relation of the school to other parts.

21 Students remain in the same classroom except for science laboratory classes or art classes and the teachers change rooms.
Fig. 9. --Plan of the School Building, UMCC Secondary School, Lubumbashi, 1970.
Fig. 10.--Plan of the School Building, UMCC Secondary School, Sandon, 1970.
Fig. 11.--Plan of the Station, UMCC, Sandoa.
Union Secondary School Katubue presents an unusual situation in that it was planned as a post uniquely for a secondary school with a triangular balance of locations of buildings and grounds for scholastic activities, housing for students, and housing for teachers, see Figure 12 for a plan of the compound.

Latrine type sanitary facilities were used at all schools to serve the classroom area. At no place was there provision for drinking water in the classroom area. Some boarding departments had water-tank facilities within the compound but few used them even here because of the relatively large amount of water required. An adequate water supply is no small obstacle to be surmounted at a rural post in such a developing nation. The supply usually comes from the closest streams or spring fed wells, however a sufficient supply is dependent on a source of power for the electric generator which produces electric energy by which the needed pump can operate. Without this power, a bucket brigade is formed toward the stream perhaps one-half mile away at a minimum.

As previously noted a generator is the electric power source at all rural posts and usually functions during only a few hours of the evening. The generator operates on diesel fuel or other petroleum product. The cost of operation is shared by the parties and institutions using the electric current. Both the time of operation and the cost relate to the use of visual aids during the daytime or evening and the use of classrooms for study hall during the evening. A school budget may be so limited as to prohibit such expenditure. Also, there may be irregularity of operation of the generator due to current conditions in the country; at one post the generator did not function at all during the
Fig. 12.—Plan of the Station, Union Secondary School, Katubue.
week of the investigation because of the momentary shortage of diesel fuel. Lubumbashi, Luluabourg, and Mulungwishi are posts that have access to continuous electric current, even so, neither Lubumbashi nor Luluabourg with only day students attempted to provide study hall facilities.

School Furnishings

The type of desk used in the secondary classrooms was the same everywhere except Mulungwishi: a wooden piece of furniture with desk and seat and wide enough to seat two students. At Mulungwishi the chair-type desk with a writing arm and open storage under the seat was used, and allows for mobility and group freedom but appeared considerably less durable than the wooden bench type to which reference is made by the government specifying that there be no more than two to a bench. Desks were adequate except at Kamina and Wembo Nyama. At Kamina they were a table-type affair made by putting boards on stacks of bricks and the small classrooms required that too many students were crowded at each table. At Wembo Nyama there were a number of desks missing and satisfactory control of the number and placement of desks was most difficult since there was no way to place them under lock and key when classes were not in session.

Each school had at least a single office of the director for school administration. Some were housed within the classroom complex, others were in nearby buildings. Usually space was included for a

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22 Western Kasai, Provincial Office of Education.
teachers' lounge but few places had furniture for such an added frill. Generally, provision was made for a separate compartment for the school secretary and yet another room that could be made secure for storage and supplies. At both Mulungwishi and Union Secondary School Katubue these facilities were in the same structure that housed the auditorium and the library.

Classic student materials varied as to quantity and those available were in fair to good condition. The new responsibility assumed by the government to furnish textbooks, notebooks, and some other supplies was not being met for interior posts where the transportation of these supplies from terminal ports of public transportation adds a practical obstacle to excellent theory. A system of rental of textbooks that has functioned for several years at a number of posts continued in the interval. A refundable deposit is paid by the student at the time of enrollment and covers the initial issue of notebooks and supplies. Additional needs for supplies are the personal responsibility of the student.

Teaching aids were at a minimum at all posts; Mulungwishi and Union Secondary School Katubue had materials covering a wider range but audio-visual materials were hardly even minimal. Basic at most schools were a few maps, a blackboard compass, blackboard projector, and a meter stick (a 1923 World Map was hanging in a classroom at Wembo Nyama). Some had a series of charts for biological science. However, classroom observation and inspection of materials indicated that some schools with the most available did not use them as much as possible. Most audio materials, and visual materials requiring projection, are dependent upon the supply of electrical power which has already been noted as minimum at the
majority of the schools. More often, such aids as slides for history, art, and geography were the property of the expatriate teacher and used at the time of the evening study hall when electricity was available. Mulungwishi was without a projector because theirs had been taken in a bizarre episode of theft a few months previously, another menace of particular significance to all the schools. Other schools had access to projectors which were used for showing films available from such agencies as United States Information for extra-curricular community oriented experiences.

One of the precautions needed in the care of materials in this tropical area is protection of paper and most wooden materials from the ever-present white ant or termite colony which can riddle enormous amounts of materials overnight. One of the most satisfactory methods is storage in metal cabinets; fortunately a manufacturer exists in the country with shipments to all interior posts. The heat and humidity take a toll on film materials as well as products used for science; storage should be in a case containing a dehumidifying substance which can be heated to dry it at regular intervals.

Libraries

Library facilities varied widely from none to those with a reading room and several hundred books plus periodicals. With the exception of Wembo Nyama, the six-year institutions had reference books, atlases, and some periodicals as well as several hundred volumes of sundry descriptions. Newspapers were blatantly absent but a partial reason for this absence is the normal delay of arrival of periodicals by mail from the centers and
even their final arrival at all. The number and level of books in English was scant for schools where English is being taught five hours each week during four years as a second language. At two posts, the library was shared with a community center with an advantage for both institutions. A series of volumes of general knowledge is available in paperback form which has permitted their addition to such libraries without enormous expense.

Sandoa had one of the most useful arrangements with a stacks area separate from a large reading room that could accommodate 100 people when fully equipped. At one post the library was reported to be stored in the attic of one of the residences with no current use. Cataloging had been undertaken at several places using either a European system or the Dewey Decimal System. Books are often covered with brown wrapping paper as a means of protection but hiding any attractiveness the volume may have to the eye, a reminder of the European idea of the library as the place where books are most guarded than used.

Laboratory Facilities

A particular curriculum followed by a school, prescribed special facilities of a laboratory or practice nature. For the commercial sections a room equipped with typewriters for teaching would be expected. At Lubumbashi, the machines were used on tables of the reading room of the library to a real advantage but carefully locked in metal closets when not in use to protect against burglary. At the same time, a beginning class at Luluabourg had no machines for use although a limited number had been ordered.
A few courses in science which require at least improvised equipment are a part of all curricula but for science sections, more equipment with some precision is mandatory. The variance of equipment employed and supplies at hand was as great for science laboratories as any physical aspect. Mulungwishi, with a math-physic section was well furnished, with the use of a number of pieces of improvised teaching aids as well as hard equipment. A large room had been renovated to form a supply closet and an adequate teaching space for the prescribed demonstration method. Expatriate teachers have taught science for a number of years; equipment and supplies were well catalogued. This school is located in the Copper Belt and an outline for chemistry had been initiated, using this metal and its compounds as a point of departure.23

The science laboratory at Union Secondary School Katubue, reflects an American influence of its sponsors. A special room was built as the laboratory with one section of elevated desks and an equipped demonstration desk before them. Student desks line the walls, with water faucets, a simple drainage system, and gas and electrical outlets over the desk. Made of wood, the desks had been left mobile in order to regularly check-out the termites. An adjoining closet housed equipment and supplies. This is used by the biology-chemistry section which has produced students whose achievement as measured by government examinations recompense the effort and investment to establish such facilities.

At the other extreme for the math-physic sections, those at Wembo Nyama and beginning at Kindu had hardly enough to note that any

23 When the writer, as an evacuee from the interior, taught physics and chemistry at this school in 1960-61, there was not one piece of science equipment, only a small mineral collection.
existed. Perhaps more alarming was the incomprehension by national staff members that a semblance of laboratory was imperative for such a curriculum.

For the pedagogy section, the equivalent laboratory is a demonstration school. A demonstration school has the primary grades but usually differs from the ordinary primary school by having better buildings, more equipment, and better qualified teachers. At Lodja and Wembo Nyama, the demonstration school existed beside the primary school. When the potential social implications were pointed out to the professional educators in the course of this study, immediate steps were taken to incorporate the two as one institution. The demonstration schools were visited at these places as well as at Mulungwishi and Sandoa. These were among the strongest auxiliaries to the secondary schools, with buildings in good condition, qualified teachers seconded by the UMCC, and teaching aids belonging to the secondary school as well as materials improvised by student teachers. At developing sections of the pedagogy curriculum, facilities were not yet in use. Kamina and Kapanga had the potential by upgrading a nearby central primary school but Luluabourg had no primary school at its disposition for observation or practice.

Sports

Usual school sports are soccer, basketball, volleyball, and hard ball. The usual type area which exists at most posts is only cleared and leveled ground. Mulungwishi does have a macadamized basketball court and Katubue had a tennis court that was covered with a pounded and tamponed anthill which is peculiar to the central area and which produces
a very hard surface. Very little sports equipment was in evidence but
the wear and tear on rough ground adds nothing to the life of the poor
quality of balls that are available. Three schools have interscholastic
matches with nearby schools, especially for soccer.

Gardening

A new emphasis for aiding the development of the country was the
reinstatement of the requirement of school gardens. In the colonial era,
gardening was one of the marks of the utilitarian aspects of education
but with the greater interest in the academic, following independence,
gardening was pushed aside with disdain by the aspiring white-collar
class. Some of the boarding departments continued to maintain gardens
worked by the students to provide at least the food staple of cassava
leaves for the dining hall. However, others, as Sandoa, in a rural area
and related to an agriculture project, had no garden at all. Here stu-
dents reportedly did not have tools but the general practice for the
schools with boarding departments, was to require students to arrive at
the institution with a hoe as part of required equipment. Mulungwishi
is a post where no gardens had been maintained for several years. Seven
hectares (one hectare equals about 2.5 acres) of corn was being planted
at the time of the visit; each class was taking one day from class ses-
sions for this task.

Kamina reported gardens of 10M x 10M per student on the adjoining
ground of the plot with cassava, peanuts, and corn. Kindu had sufficient
space and plans for gardens. At Lodja, Wembo Nyama, and Katubue, all
students worked in the gardens at least one afternoon each week. Lodja
reported corn and peanuts along with the usual cassava plots and project in chicken raising was being initiated. Katubue had a new sheep raising project funded through United States AID. Lodja girls had a greater variety of garden products including a pineapple plot and the care of other fruit sources.

Medical Facilities

At every post, there was a nearby medical facility, at least a dispensary, that provided medical care for the school population by means of an insurance plan. The cost varied from one area to another. In the Central Congo Conference, the fee was 0.7 Z ($1.40) per year which covers all services except surgery or treatment for venereal disease. In the other conferences, it appears the fee is 0.3 Z. A new required government insurance had been enacted but was not yet in function; under this plan the cost to students will be 0.35 Z. Any regulation for admission of presenting a medical certificate of good health is just not practical because of the great dearth of physicians in the area. Mulungwishi, in an area with greater medical facilities, requires a certificate of physical aptitude for sports. Most of the schools arrange for the local medical worker to give an annual examination of all students shortly after the beginning of the school year starting with those who are newly enrolled. Considering the relative facilities for medical care in the RDC, the provision by the UMCC is one of the most adequate forms of care of its secondary school students.
Boarding Departments

The dormitory facilities are of two structural patterns. Mulungwishi, Sandoa, and Lodja use the style of one room cottages housing several persons for the boys' living area. Metal beds, sometimes double-decker, may be the only equipment but some places had closets, usually of metal but sometimes built-in, and desks. At Sandoa, six boys were in a room 5M x 7M and more would have been added had enrollment increased; Mulungwishi had eight boys in a room 3M x 5M; a room about 3.8M x 4M housed six at Lodja. At Katubue, dormitories are blocks of several rooms which open onto a narrow veranda; each room is 5M x 6M housing a dozen boys with double-decker beds and wooden wardrobes furnished. Wembo Nyama had a series of adjoining rooms of about 3M x 8M of a semi-permanent structure, each room had 16 students and only half that number of beds. At all schools, boys are responsible for furnishing their own mattress, usually a ticking which can be stuffed with grass available for the cutting. There was some fear of the use of the upper level of double-decker beds associated vaguely with traditional superstitions related to evil spirits.

The girls' boarding departments have had more input in funds and more technical assistance in supervision over a long period; this is the result of the special concerns of the Women's Division of the Board of Missions whose history has been a concentration of attention on activities with women and girls, and who have been generous with both types of resources. A part of the justification by the assumed benefactor for the difference this creates between living conditions for boys and girls is an attempt to overcome the cultural stigma on girls as inferior and
subjects of the masculine part of society. Nevertheless, this practice has given rise to real problems at some posts. They have been particularly noticeable at Mulungwishi and at Lodja where there were strong programs for girls over a period of years, as far as physical facilities are concerned. The most blatant example is Lodja where the boys' boarding department remains in deplorable condition while the girls have relatively superior facilities. Equalization of operating funds has been enacted in recent years to alleviate differences in this area.

Attractive quarters have been not only an enticement for drawing girls to school but have also served as a laboratory in homemaking skills. Usually rooms are less crowded and have an adjoining small lounge. Mattresses and sometimes sheets and spreads are furnished and closets and desks are quite ample.

Generally, the dormitories could use more equipment; again this is an area where the control of furnishings is very difficult and little provision is made budget-wise for replacement of needed items. Buildings are of permanent or semi-permanent construction that have been used for several years. Lodja had real needs for repair and reported plans for renovation.

Great differences were observed in culinary facilities. The Lodja and Mulungwishi girls' departments and the boys' department at Katubue functioned quite adequately with the girls' departments aided by expatriate supervision. These are departments that care for 100 to 200 students each. The small number of girls at Sandoa and Katubue creates a different situation but with adequate service. It is coincidental that all three of these mentioned above housed dining hall, kitchen, and
partial storage in one large permanent structure. These three and also
the boys' department at Mulungwishi served three meals per day which
approached nutritional balance. Sandoa and Wembo Nyama served nothing
to students before classes convened. Lodja boys' department reported
that sometimes students will have a banana before going to school.
Policies varied as to whether the student used his own metal utensils
for eating or whether they were furnished by the boarding departments,
but usually the school owns the equipment which is kept in locked cup­
boards when not in use. Although kitchens were furnished with wood­
burning range stoves at most departments, the actual cooking had in all
cases been moved to the exterior of the building, over an open fire with
an improvised shelter--as it has been handled in the traditional setting.

Recent improvements had been made for supplying water for Sandoa
facilities. Wembo Nyama needed extensive repairs at both the departments.
Lodja boys had the least adequate facilities in their mud-stick structure
with metal roof.

The supervisor for a boarding department is salaried by the
government. Other workers are employed in numbers dependent on the
number of hours which students are required to work. Requirements made
of girls were greatest. Most schools had some requirement, but some
made no demands of the students to help with preparation or serving. The
workers are usually village women who prepare the noon day meal while
students are in classes and the evening meal with student assistance.

A minimum diet consists of the cassava leaves, or similar greens,
with rice or a bread made of manioc flour and supplemented with beans,
peanuts, or a minimum of animal protein. Canned meat, sardines, or dried
fish were added at some posts for a couple of meals each week and fresh meat perhaps once each month. Although fruit is abundant in the area, little was used in the diet except at the girls' departments at Mulungwishi and Lodja. Often beans and peanuts were not utilized in areas where they are cultivated.

The student pays a sum of about 20 Z ($40 U.S.A.), the government gives the amount of 19.50 Z per student and the Board still sends appropriations to each Annual Conference for boarding departments which is divided by the Education Committee among the schools. The most adept manager must follow a strict budget to serve a healthful diet but it is not impossible. The expatriate manager of the girls' department at Mulungwishi had menus with variety and nutritive quality at a practiced cost of 0.16 Z per student per day for the previous school year and with a smaller than average size group. Although she was situated near an urban center, the total expenditures should be about the same wherever the location and most departments receive funds that would cover this amount.

Housing for Teachers

The furnishing of housing for teachers is a policy that dates from the colonial period when social legislation required that the employer furnish quarters or give an allowance for adequate housing. With the rapid growth of the secondary schools along with existing primary schools, this policy as applied to teaching personnel has created an extremely heavy burden for the UMCC and in reality, one with which it is unable to cope. The allowance for housing included in the
salaries paid by the government is 7Z, an amount which even if it is paid into a central fund for rent as arranged at some posts, hardly covers maintenance of a constructed building. Even with the use of housing formerly used by missionaries, there is not enough adequate housing on rural posts for the teachers required at the schools which have developed. The problem is no less acute in the cities where crowded conditions push rent to exorbitant levels. The intensity is depicted when the school budget is assessed to absorb the actual cost of rent as it was when one school was ordered to pay 50 Z per month for a teacher who had returned with his family from overseas study.

Even with conditions as poor as they were found, particularly at Kamina, Lodja, and Wembo Nyama, the facilities were better preserved than many in these areas which have known several sieges of pillaging and destruction during the new nation. Even if the quantity of expatriate resources of both funds and personnel has been limited by these same factors, the plants under construction at Lodja and Wembo Nyama should help to put both communities on their feet again.
In fiscal matters related to the schools the government of the RDC has progressively assumed greater ultimate responsibility, even in the face of the rapid expansion that has taken place in the decade following independence, 1960-70. The future of the educational system is closely related to the financial resources at the disposition of the Ministry of National Education as well as the manner in which they are handled. Therefore, any examination of the finances and administration for the schools of the UMCC, a segment of national education, must be done against the perspective of the national situation and potential for school financing. Before dealing with the actual circumstances of fiscal problems related to education for the UMCC, the potential of finance and administration in education nationally will be considered, with special attention to the problems of finance which many developing nations encounter. Finally a section treats school and community relations.

A number of elements from the background information should be noted in approaching this area of finance and administration of the set of schools. First and foremost, the RDC is a developing nation; second, the schema of administration follows very closely that of Belgium itself, a country 1/80 the size of the RDC in area and less than half the population and with a strong infrastructure of communication; third, the school
enrollment has increased greatly during the decade since independence in 1960. (See Table 1) and even though the secondary enrollment is under 10 percent of the total primary and secondary enrollment, the increase in enrollment at the secondary level is even more dramatic with an augmentation from 37,388 in 1959-60\textsuperscript{24} to 222,196 in 1968-69, or 600 percent.

Some of the aspects related to financing of education in the RDC are common to many developing nations. One of these is the fact that the economy is agricultural subsistence where little if any taxation occurs, thus placing a limit on the amount of revenue increase possible in the monetary sector for all purposes. Even when the portion of the national budget allocated for educational purposes is as high as 25.2 percent as it is in the RDC, this limitation of revenue places a ceiling on the total amount available for education. In the RDC in 1970 the allocation for educational expenditures was the one largest item in the national budget, the equivalent of $82,500,000 and was an increase of 14 percent over the 1969 budget.\textsuperscript{25}

To look at the amount allocated for education from another relationship, the amount budgeted in 1969 represented 4.4 percent of the Gross National Product of the RDC. Normally the relationship should be 3 percent in a balanced national budget but Phillips points out that because only the monetary sector is taxed the portion may reach 6 percent in African countries without alarm.

\textsuperscript{24}Où en est l'enseignement au Congo? ("Where is the Congo in education?")), Bureau de l'enseignement Catholique, 1960.

\textsuperscript{25}World Bank Report.
As far as increases in the budget for education is concerned, Phillips further suggests that the rate of growth of educational expenditures should be somewhat less than twice the growth of the Gross National Product (%Δed. exp. = %ΔGNP x 2). At the current rate of growth of Gross National Product the figure of 4.4 percent per year is indicated for Africa and therefore the theory suggests an increase of 9 percent annually as a sound projection for educational expenditures. In the RDC the increase from 1969 to 1970 was 14 percent and projections are made for annual increases of 12 percent until 1975 to bring the budget for education to the equivalent of $180,000,000 at present values. These increases compared to the 9 percent projected by educational planners indicate the current priority placed on education by the national government but also that the national projection may not be feasible.

The instability of the government situation is indicated by the fact that within the year 1970 the education budget was increased by 12,000,000 whereas in other years such as 1964 and 1967, the times of particular upset and threatened rebellion, the education budget was necessarily cut to increase the defense budget.

Another aspect of the problem of financing education in developing countries is the explosion of both the school age population and the demands for education. The general population growth in the RDC is 2.5 percent and for the school-age level it increases as much as 3.5 percent, creating increases of a minimum of 400,000 students per year at the

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primary level. A government report\(^{27}\) indicates that 78 percent of the primary school-age population attends school based on the 1968-69 statistics of 2,666,000 students enrolled out of a population of 3,400,000 in the primary age population.\(^{28}\) At present only 9 percent of the secondary school-age population is enrolled but projections are for increases in secondary school enrollment of from 12 to 16 percent per year. If the same proportion of the primary school-age population alone were to be enrolled as at present, the increase for this segment would be 10 percent of the present budget. This can only further indicate the impossible situation as far as financing education for the future is concerned.

Teachers' salaries consume the largest portion of the national budget in most developing nations. The portion of 70 percent for personnel in the RDC education budget (See Table 15) is not unusual. Teachers' salaries are proportionately very high in comparison to the average annual income per person, sometimes as much as 30 times higher: the average income in the RDC is 40 Z ($80 U.S.) per year; the beginning salary for a person with high school preparation for the primary level is 34 Z ($68 U.S.) per month; a secondary teacher with training more or less equivalent of a B.S. in Education, married, with four children, would be paid 100 Z ($200 U.S.) per month. (Salaries are paid on a

\(^{27}\) World Bank Report.

\(^{28}\) Conversation with a layman of the UMCC, a provincial government primary school inspector, concurred with my sense that this portion was high. He related that his own research in one district showed a figure of 45 percent of the school-age population in school on a regular basis.
### TABLE 15
DIVISION OF THE NATIONAL EDUCATION BUDGET
DEMOCRATIC REPUBLIC OF THE CONGO

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central administration</td>
<td>1.3</td>
<td>Personnel</td>
<td>68.9</td>
</tr>
<tr>
<td>Administration,</td>
<td></td>
<td>Travel</td>
<td>0.2</td>
</tr>
<tr>
<td>Primary-Secondary</td>
<td>0.1</td>
<td>Teaching Material</td>
<td>24.0</td>
</tr>
<tr>
<td>Primary</td>
<td>47.8</td>
<td>Scholarships (higher)</td>
<td>4.3</td>
</tr>
<tr>
<td>Secondary</td>
<td>30.2</td>
<td>Boarding (secondary)</td>
<td>2.4</td>
</tr>
<tr>
<td>Higher</td>
<td>20.5</td>
<td>Miscellaneous</td>
<td>0.2</td>
</tr>
<tr>
<td>Adult Education</td>
<td>0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

twelve-month yearly basis). Although teachers' salaries are high in comparison with the average worker, they are less than salaries of government employees with comparable training.

Another factor contributing to the depletion of the national education budget is the great discrepancies between the salaries of Congolese personnel and that of expatriates of comparable qualifications who are needed for maintaining secondary schools and university classes. Table 16 gives an example by using the category of regent, more or less the equivalent of a B.S. in Education, and shows the outlay for the expatriate is $3\frac{1}{2}$ times that for a national.

The division of the national budget for 1970 indicated a distribution to levels as follows: primary, 50 percent; secondary, 30 percent; higher education, 20 percent. This is in contrast to the distribution suggested by Harbison and Myers for a country at the level of development of the RDC: primary, 30 percent; secondary, 50 percent, and 20 percent for higher education. Figure 13 illustrates this difference as well as the distribution by the UMCC of receipts from the Board of Missions by Conference and level.

For 1970, the average outlay for education by student and level by the national government was 9.9 Z for primary, 70.5 Z for secondary, and 985.8 Z for higher education. These figures only further indicate the mass at primary levels and the elite at the university level.  


30 World Bank Report, p. 204/1.
### TABLE 16

**COMPARISON OF SALARY OF CONGOLESE TEACHER (LEVEL--B.S. IN EDUC.) AND EXPATRIATE TEACHER WITH EQUIVALENT TRAINING**

<table>
<thead>
<tr>
<th></th>
<th>Scale for Congolese average tenure (15 years) married with four children</th>
<th>Scale for expatriate on general technical assistance 3 years tenure in Congo married with one child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base</strong></td>
<td>57 Z</td>
<td>60 Z non-transferable 70 Z transferable</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td><strong>Family allowance</strong></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>Diploma premium</strong></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>National Education premium</strong></td>
<td>(30)</td>
<td></td>
</tr>
<tr>
<td><strong>Allowance for extra hours</strong></td>
<td></td>
<td>36</td>
</tr>
<tr>
<td><strong>Increment for Congo tenure</strong></td>
<td></td>
<td>40,40 non-transferable 13,5 transferable</td>
</tr>
<tr>
<td><strong>Premium for foreign service</strong></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td><strong>Complement for pension</strong></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100 Z (130 Z) per month</td>
<td>347,90 Z per month</td>
</tr>
</tbody>
</table>

Source: *World Bank Report*, Table 205/1 & 2.
Fig. 13.--Division of Funds by School Level: Projection of Harbison and Meyers, National Budget, and UMCC Education Budget.

Division of education budget appropriate for a country at the level of development of the Democratic Republic of the Congo.

Actual division of the National Education Budget of the Democratic Republic of the Congo.

<table>
<thead>
<tr>
<th>Year</th>
<th>Central Congo Conference</th>
<th>Southern Congo Conference</th>
<th>North Katunga Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P</td>
<td>S</td>
<td>H</td>
</tr>
<tr>
<td>1963-69</td>
<td>73.2%</td>
<td>21.0%</td>
<td>5.8%</td>
</tr>
<tr>
<td>1970</td>
<td>62.0</td>
<td>28.4</td>
<td>9.6</td>
</tr>
<tr>
<td>1971</td>
<td>45.6</td>
<td>41.2</td>
<td>13.2</td>
</tr>
</tbody>
</table>

3 Calculated from data furnished by the field treasurer, Lubumbashi, DRC.
The heavy emphasis on the primary level is a result of at least two forces: (1) Belgian educational philosophy for the Congo of a pyramid plan with a very broad base of primary education for a large portion of the population but much more narrow at the higher levels producing an educated elite and (2) the general demand for education in all developing nations.

The above figures alone could indicate that there is little if any educational planning related to economics and manpower being done. Inquiries at numerous education offices in the capital city verified this fact. There were indications of an awareness that educational planning needed to be done and the Office of Study and Planning had been set up in the Ministry of Education but it is limited in personnel and in scope of activities.

In 1966 a High Commission for National Planning and Reconstruction was established but was very short lived. Comeliau in commenting on the failure of this group to exist for more than one year theorizes that neither the issue of technical skills, which could be regulated, or the question of the economy, with the great potential in this area in the RDC, were responsible but rather that the lack of resolution of the socio-political problems were the nilifying cause and that until such problems are resolved, any efforts will be in vain.31

In 1970 the political scene appeared to be more stabilized with the elections that supported Mobutu's continued rule and with the tribal

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animosities appearing to have subsided. Thus the time seemed ripe for initiating planning and the establishment of several planning offices to begin research that could provide needed primary information also indicate awareness of the need for overall planning. The National Office for Research and Development had been established only recently and some of its earliest investigations related to the distribution of university students in the different colleges of the university. Thinking had been aroused to the point that a seminar on educational planning had been held in January 1970. The UNESCO mission considered a project to assist with educational planning as having priority over askings for school construction. 32

Outside aid for education in the RDC has been in three forms: technical personnel, scholarships, and financial investment. These give at least some artificial justification for the disproportionate salaries for expatriates which are used almost exclusively at the upper levels and tips the balance for outlay for secondary and university levels. The larger portion of technical assistance personnel in education is furnished by Belgium and France. In 1970 the numbers were 840 and 130. The principal donors of scholarships for post-secondary studies in 1970 were Belgium (400 for study in Belgium), the European Economic Development Fund (250 of which 120 are used in RDC), France (180 used in France), the United States (300 of which 280 are used in RDC), and the United Nations (100). Financial investment for educational purpose from the

exterior is calculated at about 3,000,000 Z per year, with one-half from the European Economic Development Fund, 900,000 Z from US-AID, and the remainder from other organizations.

The financial investments from the exterior have been utilized largely in construction. The national budget for education includes no funds for school building and equipment, and there has been no budget for construction since 1960. A National Center for School Construction, created in 1962, became attached to the Ministry of Education in 1967. Its function is to evaluate projects planned by the Office of Study and Planning, to set priorities for new construction, remodeling and refurbishing for the Ministry of Education and to devise model plans resulting from research of the problems of classroom planning as related to pedagogical imperatives.

This institution reported handling projects totaling 4,240,000 Z from January 1, 1966, through August 31, 1970. The greater part of these funds, 63 percent, was for secondary school construction. The source of these funds is not indicated but it is assumed they are a part of the financial investment from sources outside the country. Funds for construction for schools, particularly for junior high classrooms, have been disbursed by President Mobutu from his special fund, a sum equal to 10 percent of the total budget and used in all spheres at the discretion of the President. This fund has also given funds for reconstruction and remodeling in areas of devastation. However, this is a minimal total amount for construction.

In the colonial era government subsidy to private sectors for school construction was often 80 percent of the total cost. The above
indicates that the present government contribution for construction is minimal and particularly for non-official sectors. Catholic authorities estimated that the total contribution for the decade 1960-70 from the government to their sector at 180,000 Z. It is not known that the UMCC has received any funds for construction purposes. Although all construction for schools by church related sectors has been less since 1960, the UMCC has continued to draw funds particularly from the United States. Funds for two secondary school plants were furnished in the mid-1960's. As well as resources from supporting church bodies, funds from both foundations and some governments have been channeled through church organization in an effort to assure proper use of funds as designated.

The hard realities of provision in education are reflected in the changes in wording from the 1964 constitution, "All youth have the right to education" to the 1967 constitution, "Provision shall be made for the education of youth by national instruction." Thus the RDC as a developing nation struggles with a number of factors related to finance: the problem of high cost of expatriate teachers in the face of lack of trained nationals, the inequities of teachers' salaries in comparison with the average income per person, an over expenditure on primary education for its level of development, the explosion of demand for education, little or no thought to planning in education as related to its manpower needs, and a projection of increases for the educational budget beyond

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33 Interview with Père Michel, Vice Chairman of the Catholic Office of National Education, Kinshasa, October 1970.
a level deemed sound by economic planners. Even with such generous projections, indications are that the total provision for education must remain limited or even be cut back. However, any limitation is contingent on another factor; the level of efficiency of the administration of school finance.

UNESCO points up the possibility even necessity of government restrictions on finances unless there is improvement in the efficiency of financial administration by the Ministry of Education and that such restrictions would have heavy consequences for a developing nation.34 The level of efficiency is directly related to the number of qualified persons in administration. The dearth is unbelievable and the provision for training within the country is practically nil.

Administration in education both for financial and pedagogical aspects has only a skeleton framework which is theoretical with little implementation. The Reform of 1962 in education established the outline with a system of inspectors and supervisors for both school administration and classroom teaching for both the Ministry of Education and the different sectors of education. However, the dearth of qualified national personnel makes any approach to adequate administration impossible. For example, in 1970 the total number of secondary school supervisors, both administrative and pedagogical, was 44 for 842 secondary schools in the country. There was no secondary school inspector attached to the provincial office of the Western Kasai at Luluabourg at the time of the visit.

Most significant is the fact that no provision is made for training in educational administration within the higher schools of pedagogy. A National School of Law and Administration exists for the training of government agents but even at this institution there is no section devoted specifically to education. Thus without modification for provision of preparation of the needed additional personnel that could implement a minimum overall administration, the likelihood of improving efficiency looms as a meager possibility.

The entire educational system, both official and approved subsidized sectors, is under the same financial regulations and benefits from the same advantages. Essentially this means that teachers' salaries are paid by the government plus a function premium of 0.60 Z (1 Z equals $2 U.S.) per year for each primary school student enrolled and 3 Z per year for each secondary school student enrolled and a supplement for secondary boarding department fees of 19.50 Z per student per year. A recent addition is furnishing school supplies and teaching materials from a government center. Since 1968, the only official expense for which parents are responsible is a part of the boarding fees at the secondary level. However there are fees for supplies, book rental, uniforms, insurance, etc., according to the level and sector of the school and responsible parents continue to feel the economic pressures related to the education for their children.

The UMCC schools are a part of the Protestant initiative in education for which no contributions of subsidy by the government was permitted before 1948. Also significant for the UMCC is the fact that school administration at the secondary level remained in the hands of
experienced expatriates until the mid-1960's when nearly full nationalization was achieved. Thus responsibility has decreased on the part of the mission/church from full financial support administered by expatriates to minor responsibility by the UMCC and with national administration of the current budget which is forwarded largely by the national government. To be candid, little effort has been initiated by the UMCC to assist national to acquire skills necessary for fiscal administration.

The procedure used by UMCC is to have both government and Board funds forwarded through the treasurer of the annual conference to a treasurer in the district in which the school is situated to reach the director. Such a system only adds to the delay and inefficiencies of a government with limited experience and a vast geographical jurisdiction for forwarding funds due. At the office of either treasurer deductions may be made against the account of the secondary school without authorization of the director and often without a labeling notice of the deduction. The arrival of funds without due explanation of their source left confusion at all places as to what amount was government subsidies (teachers' salaries are paid directly) and how much was recurring budget from the Board.

One would encounter difficulty in calculating the total outlay for instruction at a particular institution even without such confusion and with accurately completed reports. Neither value of materials received from the government, nor depreciation of property, nor special gifts of materials and funds is included in the accounting. Also excluded is an amount for the support by the Board of a missionary teacher and his family.
See Form 1, p. 202, of Appendix A for the type of information regarding finance for the set of schools. This information was probably the least accurate of any obtained and three schools rendered no report at all. Most directors registered strong complaints to the investigator regarding factors that put them in the position of being unable to ascertain the financial situation of their own institution.

Some facts are brought to focus by supplementing the questionnaire sheet with data from the Annual Conference inspectors and the field treasurer for the Board. In the North Katanga Conference the subsidy and salaries for the year 1969-70 for primary schools and secondary schools was reported as 102,050 Z. The total appropriation from the Board for the two levels of education in this conference for 1970 was 5,535 Z. Without including any payment of boarding fees by parents, the contributory part by the Board represents 5.1 percent of the sum of the two. For the Southern Congo a monthly total for November 1970 of 17,750 Z was reported. For a year this equals 153,000 Z. Probably this does not include funds for fees or boarding department payment. The Board appropriation for the two levels is 11,126 Z or 6.1 percent of the sum. No report was furnished from the Central Congo Annual Conference.

Calculations from secondary schools direct reporting on finance provide a larger portion from Board appropriation for 1969-70: for schools, Mulungwishi 24%, Lodja 33%, Wembo Nyama 16%; for boarding departments, Lodja girls 31%, Wembo Nyama boys 33%, Mulungwishi both boys and girls about 50%. Although the above figures of 5 to 6 percent are for the overall of secondary and primary levels and these figures are for secondary level, the noticeable difference leaves a question as to what
accounts for this gross difference on a conference basis compared with an individual department.

However, Union Secondary School, Katubue, with its own legal status and therefore receiving funds directly from the government, gives a report that renders the contribution of the participating Boards at less than 5 percent. Also, Lubumbashi with no boarding department indicates the Board appropriation is about 5 percent of the total budget. For purposes of further study the calculation of 5 percent as the contributory part of the Board of Missions to the secondary and primary level schools will be accepted.

The budget for secondary education from the Board by year and conference is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Central Congo</th>
<th>Southern Congo</th>
<th>North Katanga</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968-69</td>
<td>$18,546</td>
<td>$25,432</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>19,408</td>
<td>23,102</td>
<td>$2,670</td>
</tr>
<tr>
<td>1971</td>
<td>18,768</td>
<td>21,702</td>
<td>3,380</td>
</tr>
</tbody>
</table>

The differences by conference are notable but merit little more explanation here than to note that the North Katanga is the newest area with one secondary school and that the budget bears a correlation to the total giving for work in a particular conference. Budgets were cut from 1970 to 1971. However, the education committee and the supervisors exercise authority in the division of the total budget for education among the three levels. This is the reason for an increase in the

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35 Compiled from data furnished by the Branch Treasurer, United Methodist Board of Missions, Lubumbashi, RDC.
North Katanga even when the total budget had been diminished. See Figure 13 for the percentage by level for each conference for the same period.

The government has made little contribution for school construction and particularly for non-official sectors. Although the present Board contribution to the recurring budgets of the schools represents a small percentage of the total outlay, the contribution for capital funds has continued in a stable manner. Without exception funds for construction or improvement have been received for schools of 6-U-B, 6-R-B and 4-U-NB. This has provided improvement at Lubumbashi and Mulungwishi; new construction at Sandoa, Kindu, and Katubue; and projection for completely new plants at Wembo Nyama and Lodja at more than $100,000 each. Other additional funds have been forwarded for library books, laboratory equipment, teaching materials, sports equipment, boarding department supplies, and scholarship funds beyond any budget allowance. Again any accurate calculation proves hardly possible. With the two projected projects the total for the last ten years could be conservatively estimated at $400,000.

Thus indications are that the government is assuming a greater responsibility for the financing of schools both by funds and material as far as the operation of schools is concerned, that the contribution of the Board to the operating budgets of the schools is a minimum figure, but that the contribution for construction and equipment is sizable in the face of no contribution from the government. However, the Board has offered an exceptional contribution to the administration of the schools by continuing to furnish qualified, experienced expatriate school
administrators who have trained Congolese to be directors by an in-
service type apprenticeship, offering them an informal instructional
opportunity seldom available elsewhere in the country.

The UMCC is a participant in the Protestant Office of National
Education which is the liaison between the government and all phases of
Protestant National Education. The data needed for presentation to the
government is collected by a person designated as secondary school
inspector by the Annual Conference and forwarded to this office. This
duty is in addition to his major responsibility as primary school super-
visor. Although the prerequisite for performing this function for the
senior high level is the title of licence (master), none of those in
function for the UMCC have more than an assimilated regent (special
work taken beyond four years of primary teacher training program) and
therefore do not have the professional prerequisites to function ade-
quately even without the responsibility for the primary sector.

Thus, the administration of the secondary school lies fundamen-
tally with each individual director. The government requirements are
the following: for director of a junior high, the title of regent or
gradué (roughly equivalent to a B.S. in Education); for director of a
senior high school, the title of licence (master's degree). There is
no specification as to the area of specialization of the diploma held
by the director. The duties of director are prescribed as follows:
organize the classes, place the teachers, apply the national program,
admit students, and organize final exams, give ratings to personnel
under his direction.36

In addition to the director and the teachers the government provides for auxiliary personnel according to the size of the school. For a six-year school with seven to eleven classes the provision is for a secretary, a study supervisor (title of instructor), two workers, a sentry, a janitor, and a director of the boarding department where there are at least fifty boarding students.

The UMCC had met the government requirements for directors with the exception of one school. See Table 17. However, since there is no specification as to any specialization in educational administration there is real lack on the part of some in administrative skills: budget administration, areas of discipline, routines such as scheduling, and relationship to teaching personnel. Some have had the opportunity to serve a type of apprenticeship as an assistant director to an experienced, trained, expatriate where some of these skills have been highlighted.

The lack of government or church supervision and the lack of training in administration work together to make administration one of the weak points of the system both nationally and in the UMCC. What few inspectors do exist are concentrated in the centers, are rarely seen at schools there, and never visit the schools in the interior where, if any difference, the need for supervision is greater.

An example of the lag in implementation of regulations by the government is the fact that the requirements for primary school directors was only being enforced by proper examinations in January 1971 even though these requirements were also established by the Reform of 1962. Government efforts are currently being made to hold special courses during the summer vacation to aid directors by in-service training in
<table>
<thead>
<tr>
<th>School</th>
<th>No. of Classes</th>
<th>No. of Students</th>
<th>Boarding Dept.</th>
<th>Director's Title</th>
<th>Nat.</th>
<th>Teach. Hrs.</th>
<th>Adm. Train.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamina 4-U-NB</td>
<td>5</td>
<td>224</td>
<td>?</td>
<td>B.S. in Soc. Sci.</td>
<td>C</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>Kapanga 4-R-B</td>
<td>4</td>
<td>211</td>
<td>Yes</td>
<td>PP6</td>
<td>C</td>
<td>7</td>
<td>none</td>
</tr>
<tr>
<td>Katubue 6-U-B</td>
<td>10</td>
<td>254</td>
<td>Yes</td>
<td>M.A. in Soc. Sci.</td>
<td>C</td>
<td>0</td>
<td>Ass't to Moore</td>
</tr>
<tr>
<td>Kindu 4-U-NB</td>
<td>4</td>
<td>146</td>
<td>No</td>
<td>M.A. in Soc. Sci.</td>
<td>C</td>
<td>5</td>
<td>none</td>
</tr>
<tr>
<td>Lodja 6-R-B</td>
<td>9</td>
<td>300</td>
<td>Yes</td>
<td>M.A. ?</td>
<td>Exp.- U.S.</td>
<td>8</td>
<td>Yes</td>
</tr>
<tr>
<td>Luluabourg 4-U-NB</td>
<td>4</td>
<td>152</td>
<td>No</td>
<td>Regent French</td>
<td>C</td>
<td>12</td>
<td>Former Fri.Dir.</td>
</tr>
<tr>
<td>Mulungwishi 6-U-B</td>
<td>8</td>
<td>197</td>
<td>Yes</td>
<td>A.B. in Educ. +</td>
<td>C</td>
<td>6</td>
<td>Ass't to Kendall</td>
</tr>
<tr>
<td>Sandoa 6-R-B</td>
<td>7</td>
<td>203</td>
<td>Yes</td>
<td>Licence in Ped.</td>
<td>C</td>
<td>23</td>
<td>Ass't to Robinson</td>
</tr>
<tr>
<td>Lubumbashi 4-U-NB</td>
<td>5</td>
<td>230</td>
<td>No</td>
<td>Regent</td>
<td>C</td>
<td>0</td>
<td>Ass't to Persons</td>
</tr>
</tbody>
</table>
administration for the primary level.

The duties of directors were no place spelled out specifically for the UMCC. One three-year school had a director who had no teaching and in addition an assistant who taught only thirteen hours. At another school with seven classes the director was carrying a twenty-three hour teaching load (twenty-two hours is normal), plus having bookkeeping responsibility for several departments besides the school itself. Those directors who teach average about five hours.

Among the UMCC secondary schools with the dearth of people trained in educational administration, one person with a U.S. M.A. in educational administration was teaching full time. In some cases the criterion for appointment was the government regulation with no consideration of the specialization of the degree or experience as assistant to trained personnel.

At another post the director had formerly been a primary school director but had taken additional specialized training in French in Switzerland to become an assimilated regent. He had encountered routine scheduling difficulties, discipline problems, and lack of director-staff rapport.

Those who had served as assistant directors to an expatriate were able to exercise a great degree of autonomy in their total school situation, were able to delegate responsibility to others, and yet were aware of the details of relationship with teachers, staff, church and community. The government was attempting an arrangement similar to that used by the UMCC to assist directors in Kinshasa, particularly for budgeting and accounting with the aid of personnel of Belgian Technical
Assistance. A seminar for secondary school directors of the city was scheduled for the Easter vacation of two weeks in April 1971. Certain technicians had been designated to give practical aid during the seminar and then to serve as counselors for designated national directors during 1971-72.

The greatest problems of the director were directly or indirectly with UMCC authorities. Directly the problem concerned receipt of the budget as mentioned earlier. Indirectly the problem was a lack of autonomy by the director as head of the secondary school. Almost all face the pressures of those of the power structure of the UMCC to admit certain students without consideration of aptitude. Others faced also the problem of the local district council of the UMCC taking affairs that are properly school matters into their own hands. An example: at one post, during the visit, a dispute arising between a school employee and a group of students was taken to the council by the employee. The council took action without notifying or consulting the secondary school director. The director can also come under pressure of the local tribal authorities on whose traditional land the school is situated. Most are aware and coping with this continuing situation.

Many of these problems have been avoided at Union Secondary School Katubue, the cooperative institution growing from the work of the Methodist and Presbyterian missions, by the instrument of the Board of Trustees or Administrative Council of the school. Katubue has its own legal status and this Board has been the body of representatives from the cooperating groups who give backing to the staff in administrative affairs and at the same time is the only group to which the staff is responsible.
as far as the two church bodies are concerned. Such a small group
that could support the UMCC secondary school directors while adding to
their local autonomy could be found in the present Special Education
Committee. With slight modification and empowerment by the annual con­
ferences it could become the Area Council on Education with a primary
responsibility for secondary school coordination and administration.

Thus our first assumption regarding the financial responsibility
assumed by the government is verified with the Board contribution aver­
aging 5 percent ($45,180 in 1970) for operational budget but with con­
tinuing sizable expenditures (as much as $100,000 per year) for building
and equipment. From a practical view confusion reigned within the UMCC
where financial matters were concerned.

The overall administration is weak on the part of the government
and carries over into the schools of the UMCC. Even though there are a
number of directors who have had opportunity to work with an experienced
expatriate the UMCC places additional responsibilities on the director.
His greatest problems are those he encounters with regard to his own
autonomy as director both with local community leaders and with the
authorities of the UMCC.

SCHOOL AND COMMUNITY RELATIONS

The growth of the schools of the UMCC in number, size, and number
of levels has taken place simultaneously with the increasing involvement
of the government as it has assumed greater responsibility for this func­
tion in a society. As already noted the present operation consists
basicly of the UMCC assuming responsibility for the management of a seg­
takes financial responsibility for the major recurring cost of operation and prescribes regulations and programs.

It could be expected that during this same interval the schools have become well integrated into the local community and thus operate as a function of the community; this is better accepted as a goal toward which both the school and the community should aim.

Before looking at the relation of the school and the community it is essential to understand the evolution to the present. In both the RDC and other developing nations it remains a fact that the school is an institution that has been imposed in the community from the outside, usually by a foreign agency, whether it be by a mission organization, as it was so largely in the RDC, or by the responsibility assumed directly by a colonial government. As an outside force it has had potential for fracturing the existing traditional community.

Until the present time in the RDC, little has been attempted to stimulate the interest of the community in the school in its midst, let alone to lead it to assume responsibility for its strength or continuance. Either the mission/church or this agency in collaboration with the national government makes provision for the educational services offered. Efforts to establish closer ties between the community and the school seem imperative for national development at a time when the government, which is ultimately the people of the community (even if there are periods when this seems only theoretical), is assuming responsibility for education.

The demand for education has not always been as strong as today. In fact early agents had to bargain with parents to assure school
attendance by their children. This was particularly true when girls were involved. Under the cultural traditions girls did not participate as equals in this type of activity, although otherwise they are held in high esteem both psychologically and functionally.

Actually little hard data were obtained related to school and community relations. Only some observations can be pointed up based on conversation and sensitivity made more acute by previous experience of the investigator. Distinction will be made between local community as the society in the physical vicinity of the school and the society of the total UMCC community to which the schools relate.

Although a good community and school relationship is desirable anywhere, it is not the basic essential in the urban centers that it is in a rural area. During certain periods of the last decade the social and political upheaval have been so great that the support of the school and administration by the leaders in the surrounding community has been imperative for the rural school to remain in function.

An example was the assistance of the chiefs in the community surrounding Union Secondary School Katubue during the tribal warfares of 1960. The chiefs of the landowning tribe did all possible to aid the administration to maintain the school compound as a neutral territory in order to accommodate the students from as many as a dozen different tribes. No doubt other examples could be found where lack of close relationships have been an impediment to the operation of the school.

The key to such relationships has been the rapport between the two chiefs, the school director and the person who holds title over the land on which the school is located. This is the manner that is
customary traditionally in this interior part of Africa where the chief holds full authority for his group when negotiating with another group. The school is viewed by the community as a kind of group whose director as head holds full authority for his group. One resultant of this kind of community relationship is the heavy pressure made on a director, particularly of a school with heterogeneous tribal school population, by a local chief to permit a large portion of students from his tribe to be enrolled regardless of qualifications. With this arrangement the chief-to-chief relationship is the basic communication between the two groups, or only one communication avenue is open between them, and the school easily continues in the pattern of an institution imposed from the outside.

Patterns of authority have changed to a greater or lesser degree depending on factors of proximity to urban centers or transportation terminals as well as the degree of inherent tribal cohesion of a group. The use of elections for determining authority within the RDC has given an added dimension even if this manner has sometimes been annulled by the use of military authority in the same manner as the traditional tribal authority of the chief. There has been little if any education of the local population to the fact that the tax paid on the cotton or coffee crop has any relationship to the operation of the local school. Seldom is there any tangible service rendered to the adult population of the community by the school.

The whole area of development of positive school-community relations is needed at every post, some more notably than others. An interesting phenomenon is observed, however, where type 4-R-B schools
are in expansion of levels. The school in the community was being put into function through the work of the community rather than from the outside. At Kapanga the paramount chief of the Lundas had formed a local council in collaboration with the UMCC to initiate the secondary school. Members of the council are drawn from the entrepreneurial group of the community and with both laymen and clergy representing the UMCC. A brother of the chief, a merchant in the area, had plans to contribute the needed funds and see that the secondary classroom building was erected. This same "do-it-ourselves" spirit was being mobilized at another post which very much wanted additional years of schooling for their youth. Thus it would appear that the potential for a close positive school-community working relationship is given impetus where the community has of necessity had to take the initiative to see that a school becomes a part of their community.

But what is the potential at the older established institutions?

(1) Wembo Nyama is no doubt the most isolated of the secondary school posts but also the one that has had the longest contact with missionary personnel. It will be recalled that this is the least adequately staffed school headed by a young expatriate woman. One sensed in the neighboring community a lethargy and irresponsibility, a real lack of any pride in their own persons and property which is not typical of the tribe itself. The community influence on the school community was clearly detrimental; school property was displaced to the community at frequent intervals. There seemed to be an aggressive expectation that the outside agencies were under obligation to continue to render charity in that community. Even though this is the area that witnessed
the Simba rebellion in 1964, the anarchy of the interval between their retreat, and the re-establishment of order by the national army, the roots for this kind of negative relationship began even before 1960. No African staff member consulted offered any suggestion of solution for improving the relationship.

(2) Sandoa is in a rural setting near the boundary between two rival tribes. The animosity was delineated by the director when he explained that it would be impossible to use either tribal language in the local demonstration school of primary classes. A very unusual phenomenon was observed here; many fewer students were enrolled than the capacity of the boarding department could admit. This is a school with a new and very adequate school plant but lacking in teachers and with the director carrying a full teaching load plus other church related duties beyond the administration of the school.

(3) Mulungwishi is near an urban center, on the railroad, in a small agricultural area. The sense of positive community relation was such that a local school council could be formed in the very near future. A new Congolese director was very conscious of the need for cultivating community contacts. Although he had recently assumed these duties, he had been a staff member before overseas study, he had returned to work with an expatriate director before assuming the full responsibility. His sensitivity stemmed in part from the fact that he himself is mulatto and originally from another province. Either of these factors have potential for ostracizing action and friction in the community, but at the moment appeared insignificant. He was active in local service organizations such as Lions International in the nearby city of Likasi.
and was very open in acknowledging this as a benefit for the school both in public relations and in the kind of up-to-date information received from associates. Mulungwishi is well staffed and has fairly adequate though older facilities. Its high scholastic level is known throughout the province.

From these three examples hints are made to factors that can influence the school community relationship but for which hard data are not available from this study: tribal values, traditional tribal relations, history of the relationship between the school and the local community, personal ability of the director. However, from these examples it would appear that the possibility of some direct relationship between the operational efficiency of the school and positive community relations can be pointed out. Mulungwishi has had stable staff and although changing from a teacher training school in pre-1960 has made the transition with quality instruction. The presence of expatriates has also meant the contribution of outside funds to equip a laboratory, library and furnish teaching aids. In contrast Wombo Nyama has had a disrupted course for most years of the decade. The teaching support of young expatriate men in the 1965-67 period helped both the quality and in a limited manner outside contributions for extra at the school. However, an observation gives an example of the obstacle that the school has continued to face before the community: a basic six volume encyclopedia had been purchased for the library during the school year 1969-70 and in December 1970 two volumes were missing from the closet type library. Desks and beds disappear from the school premises in a like manner.
The use of a Board of Trustees at Union Secondary School Katubue was discussed earlier under administration. Although this is not a local committee it has some of the same features of support to the staff. It has been the practical mode of operation in a cooperative project of three groups. The present Special Education Committee has the potential of developing a function in much the same way for the set of UMCC schools.

But an outside group drawn from the immediate community, similar to the council drawn up by the chief at Kapanga, could make a real contribution to both school and community. The feasibility of this type of local school council was discussed with the director of the school and others in the community whom it was felt could make a contribution to such an idea. Each director had a professional sensitivity to the potential of assistance that this could be to the staff but also pointed out the reality that without strong leadership such a group could prove more of a hindrance than an aid. There are localities such as Mulungwishi where this could be done now. Most other posts, however, especially in rural areas lack enough people within the community, with enough vision of both community and education. A level of personal maturity is required to lead people, to contribute of themselves to the end of progress for the school and community rather than personal gain.

The relationship of an individual school to the UMCC is rather like that of a developing adolescent and his over-protective parents. The UMCC has brought the schools into being and continues to give guidance and support in times of crisis, such as periods when teachers' salaries are overdue, but sometimes tries to exercise so great a degree
of authority over the school as to be stifling, especially for the
direction of the school. The mode of administration that places the
secondary school under the authority of the local district council has
been some aid for the school when there has been open aggression and
anarchy in the area but under ordinary conditions this becomes a real
impediment for the operation of the school because it tends to usurp
the authority of the administration. A local community oriented school
board for each school could assist in overcoming this problem.

The system of secondary schools related to the UMCC has developed
rapidly and without any central authority other than the episcopal head.
Attempts have been made to coordinate the work of the schools through a
committee of secondary school directors but this group has lacked the
proper mix for direction because other segments of the UMCC and of the
community have not been a part of the group. A Special Education Com-
mittee of the UMCC Episcopal Area has been initiated to assist with the
preparation of this study and to receive the report and recommendations.
This group has the potential of establishing an overall organization of
the system at the secondary level, of giving coordination to the activi-
ties of the various institutions, and providing for leadership in the
administration but in its present form lacks any authority for action.
This is a group of twelve members with the school inspectors serving as
ex-officio members. As presently constituted members are elected by the
Annual Conferences and must be on the basis of one pastor, one layman
not employed by the UMCC, one laywoman, a secondary school director, and
a secondary school teacher for each of the larger groups and only two
representatives from the North Katanga Conference. Its only authority
as constituted is for consultative purposes with recommendations being returned to the Education Committee of each Annual Conference.

Thus our findings would indicate the need for establishing means of communication between both local communities and the local school as well as between the UMCC and the secondary schools both on an individual basis and as a group.
CHAPTER VI

TEACHERS

At least two factors should be kept in mind with regard to teachers at the secondary level in a developing nation. First, the explosion of demand for education is presently reaching a peak at the secondary level: it has already been noted that the enrollment in secondary schools in the RDC had increased 600 percent in a decade. Secondly, the staffing of schools at the secondary level in the colonial period was chiefly by expatriates and most systems had not evolved to the stage of making provision for training teachers for the secondary level. A dilemma of demand and supply of secondary school teachers can be anticipated just as it has been the pattern for schools in many nations at this level of development at present and in the past.

In the RDC the qualifications for secondary teachers are specified by the national government through the Ministry of Education. As in many countries, and particularly in developing nations, the supply of qualified teachers is apt to lag behind the demands of a rapidly expanding educational system. It was assumed when this study was begun that the teachers of the UMCC secondary schools would have qualifications less than the national standard but above the national average.

Personnel for the post-primary institutions of the colonial period were exclusively foreign-trained and usually expatriate. Highest
estimates for nationals with the equivalent of an A.B. degree in any specialty at independence in 1960 was the number of twenty. With no provision for training teachers within the country, the rapidly expanding secondary school system was dependent on expatriate personnel. In 1962-63 there were 3,681 secondary school teachers of whom only 23 percent were Congolese. The 1969-70 figures of 8,854 secondary school teachers with 41 percent expatriates indicate both the augmentation of the total number and the decrease of the proportion of expatriates included.

The government requirements for secondary teachers is as follows: (a) For the junior high level and first year of secondary school, the degree of gradué or regent. This is more or less the equivalent of a B.S. in Education in the United States and is earned at a professional school for teacher training. In the RDC this training is furnished by the National Institute of Pedagogy and several regional Middle Normal Schools in a three-year program.

(b) For advanced years of secondary school, the degree of licence in teaching. This is the equivalent of the M.A. degree in the United States. Two options are prescribed within the country for obtaining this degree: a two-year course which follows the granting of the degree of regent by a Middle Normal school and which is provided by the Higher Normal School of the National Institute of Pedagogy; and a course of one year at a Faculty of Pedagogy after receiving a degree of licence

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37 Boustani et Mambe, op. cit., p. 64.
38 UNESCO Report, p. 27.
in a particular subject, for example, French literature, in order to be approved for teaching.39

Training for secondary teachers within the country has evolved since 1961 and even the provisions mentioned above remain hypothetical. In 1961 the National Institute of Pedagogy opened with difficulty because of the prevailing conditions in the country and even through UNESCO assumed major responsibility as a part of the Program for Development of the United Nations. It continued in this original relationship to the international organization which had begun the school as a pilot project for a three-year program of teacher training with a goal of providing personnel for the expanding number of junior high schools. This training program stresses content in a chosen option plus teacher training that includes supervised student teaching experience of nine hours per week during the third year. The eight teaching options are: French and philosophy, English, mathematics, history, physics, chemistry, geography, physical education.

In 1970 thirteen institutions followed this program and were designated as Middle Normal Schools, but most of these institutions did not yet have the complete course in function. Regional coordination permits as many as possible of the options to be offered in each province. By June 1969 the pilot program had furnished 323 with diplomas or 80 percent of the total granted in the country, indicating the potential influence of this school on instruction at the secondary level.

Provision for the licence in teaching was made by opening a two-year course following the three-year program of the Middle Normal School.

This, also a pilot program, became the Higher Normal School of the National Institute of Pedagogy and ten finished the course in 1970 in the history and geography options. Those expected to complete the course in 1971 and 1972 had followed the mathematics option. The program at the National Institute of Pedagogy continues to be heavily supported by UNESCO technicians and outside financial aid. A second institution was opened in 1970 at Budau by the Catholic sector.

The alternative option, being approved (agree) for teaching, by following a one-year course after obtaining a licence in a content subject, prescribes a large portion of courses in foundations of education in addition to supervised student teaching but was not actually provided in 1970.

At present the large majority of the teaching personnel for these training schools are expatriates which means that there are problems of continuity as well as the diversity of policies regarding salaries by the countries who have sent them as technical assistance. An additional purpose of the schools in addition to training teachers was to undertake research in teaching methods and faculty members teach about twelve hours per week with allowance for time devoted to investigation of problems of interest locally related to pedagogy. The political instability, administrative upsets of the institution, meagerly trained personnel, and economic limitations are all reasons contributing to the reality that very little had been accomplished in this area at the time of the visit to the highest training institution in the new nation.
The title of institution means the holder is prepared for teaching in primary school following a secondary pedagogy option, but in the current crisis of personnel, persons with this training are permitted to teach in the junior high schools.

The distribution of teachers in the secondary schools of the UMCC by degree held, differentiation as to national or expatriate, and by school is tabulated in the following table.

**TABLE 18**

DISTRIBUTION OF TEACHERS IN THE HUMANITIES SECTIONS
UMCC SECONDARY SCHOOLS IN THE DEMOCRATIC REPUBLIC OF CONGO BY NATIONALITY, SCHOOL, AND DEGREE 1970-71

<table>
<thead>
<tr>
<th>School</th>
<th>Total</th>
<th>PP6</th>
<th>D6</th>
<th>Regent</th>
<th>Licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamina 4-U-NB</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Kapanga 4-R-B</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Katubue 6-U-B</td>
<td>17</td>
<td></td>
<td></td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Kindu 4-U-NB</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lodja 6-R-B (est.)</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lubumbashi 4-U-NB</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Lulubourg 4-U-NB</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mulungwishi 6-U-B</td>
<td>17</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Sandoa 6-R-B</td>
<td>11</td>
<td>4</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Wembo Nyanaka 6-R-B</td>
<td>13</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>115</strong></td>
<td><strong>14</strong></td>
<td><strong>27</strong></td>
<td><strong>14</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Note: D6 = a diploma from a six-year humanity pedagogy section of secondary school.

PP6 = has followed six years of post-primary work but without pedagogical training, also included in this category are a few D4 or those with a four-year diploma of preparation for primary school.
The proportion of the total number of secondary school teachers holding each degree and the proportion that are nationals and expatriates is determined in Table 19.

**Table 19**

SECONDARY TEACHERS OF THE UMCC SCHOOLS IN THE DEMOCRATIC REPUBLIC OF THE CONGO BY NATIONALITY AND DEGREE 1970-71

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
<th>Percent</th>
<th>Nationality</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licence</td>
<td>42</td>
<td>37</td>
<td>Congolese</td>
<td>69</td>
<td>60</td>
</tr>
<tr>
<td>Regent</td>
<td>30</td>
<td>26</td>
<td>Expatriates</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>D6</td>
<td>29</td>
<td>25</td>
<td>Congolese</td>
<td>66</td>
<td>60</td>
</tr>
<tr>
<td>PP6</td>
<td>14</td>
<td>12</td>
<td>Expatriates</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>100</td>
<td>Total</td>
<td>115</td>
<td>100</td>
</tr>
</tbody>
</table>

By using these data and the same kind of data drawn from the national statistics for 1967-68 (latest year available) the comparison shows practically no difference in the proportion of expatriates for the two segments.

**Table 20**

COMPARISON OF PROPORTION OF EXPATRIATE AND CONGOLESE SECONDARY SCHOOL TEACHERS ON A NATIONAL LEVEL 1967-68 AND FOR THE UMCC 1970-71

<table>
<thead>
<tr>
<th></th>
<th>National 1967-68</th>
<th>UMCC 1970-71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expatriates</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>Congolese</td>
<td>59%</td>
<td>60%</td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

*Boustani, op. cit., p. 64, Tableau 20.*
Of the expatriate secondary school teachers with the UMCC, twenty-four are American, ten are Swiss, seven are Belgian, and five are other nationalities. The American and Swiss segment reflects the support of the Methodist Church in these countries and the Belgian segment is made up largely of persons contracted within the centers, particularly in Lubumbashi.

Table 21 is a comparison of teachers of the UMCC in 1970-71 and the national total for 1967-68 by degree and division of expatriates and nationals. The UMCC has 63 percent of its personnel holding the qualifying standard of at least the degree of regent while only 40 percent of the personnel nationally met the specified requirements in 1967-68. Although instituteurs are prepared for primary teaching, by default of sufficient qualified personnel the government currently allows persons in this category to teach at the junior high level. When this category is included, the percentages for the two groups is the same but to be noted is the fact that almost half of the personnel nationwide was in this category while only one-fourth of UMCC personnel was in the same category and with the majority of the UMCC personnel fully qualified as indicated above.

Although as already noted the proportion of expatriates is the same, the qualifications of expatriates used by the UMCC is notably higher than the national figure for expatriates. For the UMCC 96 percent of the expatriate teachers are fully qualified while only 65 percent of the expatriates nationally are fully qualified.

40 The proportion of UMCC expatriates with the degree of licence, 61 percent, may be a bit skewed by the number of U.S. degrees for which
### TABLE 21

**Comparison of the Democratic Republic of the Congo National Percentages 1967-68 and the UMCC Percentages 1970-71 of Secondary School Teachers by Qualification and Nationality**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>National 1967-68</th>
<th>UMCC 1970-71</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Congo</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licence</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td>Regent</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Instituteur</td>
<td>64</td>
<td>40</td>
</tr>
<tr>
<td>Unqualified</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Expatriates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licence</td>
<td>27%</td>
<td>61%</td>
</tr>
<tr>
<td>Regent</td>
<td>38</td>
<td>35</td>
</tr>
<tr>
<td>Instituteur</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Unqualified</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licence</td>
<td>14%</td>
<td>37%</td>
</tr>
<tr>
<td>Regent</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Instituteur</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td>Unqualified</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*a* Boustani, L'enseignement au Congo, Tableau 21, p. 67.

*b* This category covers those without appropriate level of content or professional pedagogical training.
Although only 40 percent (20% and 20%) of the Congolese teachers for the UMCC are fully qualified, the proportion is much higher than the national figure of 22 percent (5% and 17%).

A closer look at the UMCC personnel indicates that most of the six-year institutions more or less adequately meet staffing requirements according to the needs for the number of existing upper level classes; a blatant exception is Wembo Nyama where there are six classes of upper level which should require nine licences (number of classes x 1.5 licences) but there are listed only three teachers with a degree equivalent to the licence. See Table 22. For the four-year institutions, Lubumbashi has the most nearly complete group of fully qualified teaching personnel. Kapanga shows great deficiency for the one teacher listed as regent is a part-time missionary teacher responsible for only five hours of English instruction. See Table 23.

Although there were currently about 400 graduates of the Middle Normal schools, the UMCC had for all practical purposes ignored this source for qualified teachers. Only one UMCC teacher had finished the three-year course and some few others had followed portions of the program either successfully or unsuccesfully. Most qualified Congolese had benefited from overseas scholarships made possible for the most part by the churches; of the fourteen holding a degree equivalent to licence, only three were earned in the country and these had been granted very recently by the Faculty of Theology, the Free University in Kisangani. both the A.B. and M.A. had been equated with licence. However, this does not affect proportion of the total group meeting requirements.
### Table 22

**Required Personnel Holding the Title of Licence Needed for Classes at Six-Year Institution of the UMCC Compared with Number of Qualified Personnel in 1970**

<table>
<thead>
<tr>
<th>School</th>
<th>No. of classes at upper level</th>
<th>Required No. with Licence</th>
<th>Actual No. with Licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katubuc</td>
<td>6</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Mulungwishi</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Lodja</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Sandoa</td>
<td>4</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Wembo Nyama</td>
<td>6</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

### Table 23

**Personnel Holding Title of Regent Required for Junior High and Lower Secondary Levels and the Number of Instructors (Permitted) in the Four-Year Institutions of the UMCC 1970**

<table>
<thead>
<tr>
<th>School</th>
<th>Total No. of Teachers</th>
<th>Regents or Licences</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamina</td>
<td>9</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Kindu</td>
<td>8</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Lubumbashi</td>
<td>10</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Luluabourg</td>
<td>10</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Kapanga</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Of the entire group with higher degrees only a few have any specialization for teaching or educational administration.

Those with deficient preparation (PP6 and D6) are given teaching responsibility at the junior high level. Although the proportion for the UMCC is only 37 percent in comparison to the national scene with 60 percent, these are the classes that have the heaviest teacher/pupil ratio. Although the maximum enrollment is set by the government at 40 for the junior high classes, some UMCC classes had 46 and 47. The maximum for succeeding years is 35 in third and fourth and 30 in fifth and sixth and a government inspector had enforced the regulation at the Kindu school just prior to the visit for the study. On a national basis the proportion of secondary school students enrolled in the junior high schools in 60 percent or exactly the same proportion as teachers with deficient preparation.

Because of the large number of teachers with deficient preparation and the large classes enrolled in the junior high level, particular attention was given to observation of the junior high teachers who are instituteurs. Although some were doing exceptional work in teaching, a number were observed in actual mis-teaching procedures. At Luluabourg in a physiology class a diagram of the human heart resembled closely that of the lungs with two separated parts filling the chest cavity. At Kindu the multiplication of the sum and difference of an algebraic binomial was obtained by long multiplication. Another at this post used no maps for a geography lesson on Brazil while the needed map hung in the school office. At Wembo Nyama a great deal of confusion surrounded the teaching of the ways to designate an angle, with a couple of
unorthodox modes included. At Lubumbashi a teacher with no special preparation beyond secondary school was assigned all of the religion classes.

An examination of the list of teachers with the specialization of their degree and the subjects being taught revealed very close correspondence except for the instructors. At Kamina a person who had specialized in pedagogy was teaching French and civic instruction but with no formal classes of pedagogy this seemed permissible if the person were to be assigned to the secondary school. Katubue had one person with specialization in sociology who was teaching some mathematics in addition to the small number of sociology classes in the curriculum; here it seemed a more closely related field would have been more appropriate. It was also to Katubue that the one person with advanced training in educational administration had been appointed and as a pastor was teaching religion and history. Kindu had four staff members who were recent graduates of Wembo Nyama and the school at Wembo Nyama had five staff members from the most recent classes that it had sent out. Even from an institution with the highest achievement on the part of its graduates, this practice would be questionable.

Long accepted practices and other strong impediments accentuate what is known everywhere, that the recorded qualifications of a teacher do not always predict the effectiveness of classroom teaching. As in many countries, the curriculum is specified in number of hours per week, the syllabus outline is furnished and teaching is very often directed toward the end examination. Even so, a great deal of flexibility for creative activities and innovative methods is possible, but little is
actually to be seen. The stimulus of supervision by the director and/or inspection by the State, although questionably artificial, is totally missing and the quality of instruction is in reality the responsibility of the individual. Only occasionally was a lesson observed that used other than the traditional lecture-note-taking with the final State examination always like a cloud on the horizon.

Unusual student enthusiasm was noted when teaching showed some adaptation to the African milieu. A class in African sociology is a part of all third year curricula and always pricked the interest of the student in those classes observed. An expatriate teacher of English had followed a class suggestion to practice orally by relating the difference in tribal customs among the members of the class. An experienced science teacher had adapted a chemistry syllabus to make use of copper compounds in teaching at the Mulungwishi school which is in the Copper Belt of Africa. By contrast a young expatriate, recently arrived at Sandon, had difficulty explaining parallel forces because he was unable to draw on an illustration from the African setting. The quality of French was poor for a number of expatriates as well as the less properly prepared Congolese. With few exceptions the sense of professional responsibility appeared high even making allowance for the factor of a visitor's presence.

The sphere of activity of a teacher does not end at the close of the class sessions. Teachers with the UMCC are expected to assume responsibilities beyond the classroom hours, particularly at the rural posts with boarding departments. Study hall, dormitory supervision, sports, book store, library, choral groups, dramatic clubs, school assemblies
are some of the types of activities demanded that are not always a part of the responsibilities of the teachers in government day schools. Community responsibilities may center largely on recreational activities, adult education and church functions.

Certain cultural factors cannot be ignored in relation to the appointment of secondary school personnel for the ECC. In a system that covers such a large geographical area, the factor of tribalism must be kept in mind, particularly in schools with a homogeneous population. This factor seemed to be of less importance at the time of the field trip than it had been at earlier periods in the new nation; it remains a factor that should not be ignored. The help has tried to arrange transfers and exchanges that will assist in abetting the strength of this force.

However, at the same time transfers for this reason or others only add a weakening influence by accentuating the discontinuity of personnel. This is accentuated by the fixed term of many expatriates with a year of absence for furlough following, for example, three years. Added to the amount of transfer of personnel is the attrition level among secondary school staff and only means that one of the most crucial problems of the schools is related to the lack of stability of staff even at the institutions with the most nearly qualified personnel.

The supply and availability of secondary teachers is influenced by several factors. Although the number of teachers for secondary schools should increase consistently because of the number completing courses at both the Middle and Higher Normal Schools the demand will be greater because of the increasing number of secondary school classes,
estimated at from 12 percent to 16 percent per year. Because of the higher salary scale which exists for positions related to other ministries of the government a number of the better trained people will leave the profession to take up more lucrative positions in these areas. This only underlines the continuing need for expatriate teachers, even with the greater difference in salary outlay for this type of personnel.

Another cultural factor is related to the use of women as teaching and administrative personnel in schools in which 85 percent of the school population is male. The rebellion against assertion of authority by a female by this age group is to be expected in many societies but in the African setting is only accentuated when the woman is young, unmarried, and in the current era, expatriate. The unmarried woman, particularly of such moral standing as expected by the UMCC, is an unknown in the African traditional culture. Respect for age is one of the values that is held in high regard in the traditional setting. The expatriate is tolerated at the moment because of the desperate need for the skills furnished. Thus the person who is young, unmarried, female, and expatriate is lacking in respect on all four counts and the use of such should be at a minimum for the well-being of the school as well as the person involved. Lack of experience and the role of administration only add further to the complexity of such a situation.

Teacher housing has been discussed already under physical facilities. The lack of adequate facilities for residence for teachers together with the isolation of the setting are directly related to the problem of maintaining staff particularly at Wembo Nyama, and to a lesser extent at Lodja and Sandoa.
Thus, overall the qualification of teachers for the UMCC schools is above that of the national level. However, there are schools that are definitely lacking in personnel of the qualifications that they should have for the level being undertaken, notably at Wembo Nyama and at Kapanga. The use of expatriates, infrequent transfers, and the high attrition rate all contribute to a discontinuity of staff for all schools. Cultural factors related to intertribal use of personnel seem to be recognized and dealt with at the moment but the administration seemed blind to the cultural factors related to the use of the young, unmarried, female expatriate.

Housing for teachers remains one of the most crucial problems with which the UMCC must deal in the very near future.
CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

In approaching the conclusions and recommendations of this study, certain factors must be kept in mind. First, the RDC is only a decade from the granting of independence and is an area where development remains largely agricultural subsistence with only a minimum of industrialization. Second, the increasing population only adds impetus for the continued expansion of education in the future and with the greatest recent expansion at the secondary and higher levels. Third, there have been no studies of manpower needs as related to education, largely because of existing social and political conditions, and in the meantime, as though on a hunch, expansion has had emphasis in the academic curricula for university preparation. Fourth, the UMCC pattern of expansion has followed that of the nation with greatly increased secondary school provision but with little overall administration and coordination. Fifth, the UMCC has resources of funds and personnel beyond that which it is accorded by the national Ministry of Education.

Three major conclusions related to the secondary schools of the UMCC can be made against this background: (1) the language problem, an obvious obstacle to the learning process, becomes acute at the secondary level; (2) the national Ministry of Education, while remaining dependent on the church sectors for the operation of the secondary schools, is subsidizing a very large portion of the cost of education and at the same
time is beginning to assume responsibility for enforcing its regulations;
(3) although the operational efficiency of the secondary schools of the
UMCC appears to be equal and in some aspects superior to secondary
schools on a national basis there are specific areas of weakness.

The Language Problem

The present dilemma of the secondary schools in the RDC of which
the set of the UMCC is an integral part is in being caught in the middle
between a primary school system with a diminishing level of performance
and a university system which has been able to continue to maintain
international standards of performance and the most important facet of
the dilemma lies in the whole problem of language. Government regula­
tions stipulate the use of French from the first year of primary school.
Even though this is debated by many because of the loss of culture con­
tact by the child, this remains the regulation. But to achieve the
facility needed in French to follow secondary instruction is practically
impossible in a six-year primary school system which has only one in four
teachers with the standard training of four years beyond primary school,
and this training itself has been in French that becomes corrupted as an
international language does in a developing area. Therefore, for the
one-fourth with the best instruction the quality of French they are able
to use is questionable.

In the program of the junior high school allowance was provided
to overcome the deficiency of the primary school instruction by including
ten hours of instruction per week in French. But again it is at this
level that the largest percentage of underqualified teachers, those who
are recent high school graduates themselves, are utilized. A child may arrive at the third year, even having been among the small part that are permitted to continue beyond junior high school, unable to write the simplest sentence in correct French and with poor audio-perception as well. The task of achieving competence in the wide array of subject matter making up any of the secondary school curricula is truly formidable. This is reflected in the high attrition rate in the junior high classes and the fact that the four highest classes from only 40 percent of the total enrollment.

Even though more teachers for all levels are being trained, the level of French competence remains questionable, and the influence of the teachers for improving the quality of communication is limited at best. The use of audio-techniques via radio have been utilized in Senegal and pilot projects with these techniques were underway in the RDC at the time of the study. With the modern technical equipment for television and radio programming on the spot in Kinshasa at the TELSTAR studios, a program of teaching French by making use of provincial broadcasting stations and by supplementing the supply of transistor receptors could provide quality instruction in French for primary schools even in the most remote areas but dependent ultimately on the human factor of the teacher as to whether he makes utilization of such a mode by tuning in at the proper time and using appropriate follow-up techniques.

The Government Situation

At the same time that the government is yet dependent on the mission/churches for collaboration with it for the provision of overseeing
eighty percent of the schools related to the national Ministry of Education, there are indications that the government is aware of the limitations, particularly financial, imposed on such a developing nation, and is taking concrete measures to tighten up the total administration of the system. Although there has been little implementation of the plans for administration on the part of the government in an era when there has been almost constant disruption of scholastic activities in some part of the country, more financial responsibility has been assumed for both classroom operation and boarding department fees and some provision of classroom supplies has been initiated in addition to the direct payment of teachers that has been used for a number of years.

These specific incidents were observed as being significant of the fact that the government is assuming responsibility beyond funding:

(1) Schools in the urban centers were frequently visited by scholastic supervisors in the different subject areas; rural areas were not often on the itinerary of the few persons, either expatriate or national, who qualified for such supervision.

(2) Administrative supervision was giving attention to both maximum and minimum class sizes. A government supervisor had called at the school at Kindu and required the reduction of class enrollment to the maximum stated by government regulations. In Luluabourg classes at the upper levels in schools of different sectors (government and Roman Catholic) were reportedly being combined to form classes with a minimum of twelve per class.

(3) The number of primary classes was being limited by the fact that no new sections were being permitted to be added.
(4) The regulation for qualifications of primary school directors established by the Reform of 1962 was being implemented in 1971 by giving the prescribed qualifying examinations to those with experience but a minimum of training.

(5) Expatriates with the rank of instituteur were being eliminated in order that these positions could be filled by nationals, thus utilizing national resources and conserving expenditures.

(6) In-service training for directors in accounting and business administration was being projected for use in Kinshasa through the aid of expatriate technical assistance.

All of these point up the awareness on the part of the government of the need for improvement of financial administration of educational expenditures and the initiation of measures to improve operational efficiency.

Although the government continues heavy funding of subsidies and is initiating strong efforts for implementing its own administration both at the fiscal and the academic program levels, there is little indication of any efforts to fully nationalize the secondary schools. Such a development could mean the take over of present school properties and direct appointment of school personnel, leaving the UMCC with little responsibility beyond providing teachers for the classes of religion. Even though it presently appears highly improbable that such action can take place in the immediate future, it is a possibility that should be kept in mind by the UMCC.
The UMCC Situation

Although most of the aspects of the UMCC schools that have been examined in this study showed quality above the national average, the resources at the disposal of the UMCC in better qualified personnel, financial resources beyond government funding, together with activation by Christian principles, should contribute to a potential far greater than is presently being realized.

A major area of weakness relates to a lack of adequate overall administration and of financial integrity. In the best circumstances, when a director has a minimum of classroom or other additional duties, he was handicapped in administration because of the manner in which funding came to the school for the treasurer of the Annual Conference: passing through other channels with various deductions made without authorization from the director and arriving without due explanation of such deductions. Any semblance of overall administration was assumed in each conference by the legal representative and the primary school supervisors who lack any professional training appropriate for the secondary level.

Crucial weakness relates to the rapport between the ecclesiastical leaders of the UMCC and the school director. Each school, along with the other church activities, is under the supervision of a district council of the UMCC which can ultimately override the authority of the school director. A disagreement arising from an incident between two school employees was witnessed in which the problem was taken directly to the district council that acted on it without consulting the school director.
The national educational problems of the poor quality of communication skills in French and underqualified teachers at the junior high level is only accentuated in the UMCC schools by the cultural factor of the location of a number of the schools in homogeneous African language areas where the local language is the norm of the community as well as the school with the exception of the classroom itself.

Living conditions for students varied a great deal but the greatest problem related to the diet furnished to students by the boarding department. An aptitude for management (needed to use the limited funds received from the student, the government subsidy, and the Board appropriation to provide a balanced diet), was rarely found among those in charge of the boarding departments. Also, the amount of government subsidy due a particular department did not arrive intact at its destination. That there were two department with expatriate advisors who were able to serve a nutritious diet within the financial limitation indicates the problem is one of management.

The provision of housing for teachers is a common problem of most school posts. It is one of the most difficult to resolve, at least in part, because of the precedent that has been established in making such provision. Housing of the standard suitable for a person with the experiences of a secondary school teacher are not to be found for the rent allowance that is part of the payment to teachers along with salary. Neither is the UMCC likely to find resources for additional construction sufficient to resolve the dilemma and the government is not currently funding large sums even for classroom construction.
It would appear that all of these conditions, which with few exceptions are common to each school, could be improved if they could be handled by a central authority within the UMCC rather than individually.

RECOMMENDATIONS

In light of the review of the overall factors related to the schools and the conclusions related to the set of schools, the following recommendations are made to the UMCC. They are of two types: (1) overall and (2) specific. The specific recommendations are made contingent to the acceptance and implementation of the overall recommendations.

Overall Recommendations

1. The creation of a central body within the UMCC with overall responsibility with respect to national education and with special authority for secondary and higher education: Area Council on Education.41

At the time of the visit there was no overall administration for the total group of secondary schools except for the authority exercised by the bishop. The Special Education Committee had evolved from an earlier experience of calling secondary school directors from the entire area to meet together about once each school year but the power of the recent committee was limited to that of an advisory capacity with all recommendations returned to the Education Committee in the annual conference, where they were as likely to be rejected as accepted, particularly if any hint was made of a restriction of classes or programs. The formation of the Special Education Committee has been a major step

41 Area is a term used by the UMCC to include all three Annual Conferences.
for the implementation of this recommendation. The writer served as consultant to this group during a ten-day conference as a part of the field visit. As constituted at that time the group was elected by the Annual Conferences by categories: one pastor, one layman not employed by the UMCC, one laywoman, one secondary school director, and one secondary school teacher from the Central and Southern Congo Annual Conferences, and one pastor and layman from the North Katanga Conference. Certain other categories were ex-officio members: the Conference school supervisors, the bishop, and the administrative assistant to the bishop. This composition gives a breadth of representation but the Area Council on Education could be a stronger group with the addition of at least two laymen with business background.

Although elected by the Annual Conference the Special Education Committee was given no authority beyond that of forming a consultative body. To become the Area Council on Education, each Annual Conference would need to empower its members to take responsibility, along with the members of the other conferences, for all matters related to national education and the UMCC. This would mean a transfer of full responsibility from the Education Committee in each Annual Conference to the Area Council of Education. The responsibility for secondary and higher education would be assumed by the Area Council and the responsibility for primary education in each Conference could be returned to the Conference Education Committee and the supervisors of the primary schools with reporting to the central body. See the following chart for the above plan.
Fig. 14.--Proposed Organization of Education, UMCC, Democratic Republic of the Congo.
2. The creation of a central administration for secondary education for the Area with authority from the Area Council on Education and executed by a full-time administrator.

Such a central administration for the Area could improve these functions related to secondary education:

(a) Coordination of the total educational program of the UMCC as related to the national Ministry of Education at all levels: primary, secondary, and higher education.

The UMCC would gain perspective on the relationship of the three levels and particularly as it becomes aware of the role of the secondary level as a link between the other two.

(b) Recommendation for the opening of new classes and for choice of curricula to be followed in cooperation with the government.

An overview of the UMCC institutions and collaboration with the Ministry of Education would aid in keeping a workable balance for any augmentation of classes and/or selection of a particular curriculum in relation to the total of national education. Government efforts are toward making available as many different curricula as possible to a given local region.

(c) Recruitment and recommendation for placement of personnel in cooperation with church and government authorities.

A distribution of personnel that matches teacher qualifications and teaching subject in as many cases as possible could be achieved by recommendation from such an administrative office. The problem of language could be approached in two ways through use of personnel: 1) recruitment of graduates of the Middle Normal schools to teach in the junior high level, fulfilling the requirements of the Ministry of Education; 2) the graduates of the pedagogy section of secondary school now
teaching in junior high level could then be placed in the primary schools. Language skill instruction should be expected to improve at both levels with such an arrangement.

(d) Administration of all fiscal matters related to the secondary schools of the UMC.

Fiscal responsibilities should allow for a measure of control of all funds related to these schools. Funds could continue to be handled by the treasurer of the Annual Conference but with both notification of receipt and authorization for distribution from the central administrator.

(e) Provision of professional counseling services to secondary school administrators.

The administrator would be in direct contact with the directors through visits to each school as well as occasional conferences. The psychological support to the directors is imperative for optimal level of operation, given the responsibilities that each carries under conditions of isolation and often inadequate staffing and facilities.

(f) Initiation and provision for in-service training programs and seminars to provide professional assistance to various types of secondary school staff personnel.

In-service training was acutely needed for school directors and boarding department directors with respect to fiscal matters, particularly budget administration. The same means could also be the mode for interpretation of government programs and policy as well as programs related to professional enrichment.

3. The creation of an advisory council for each secondary school in the near future.
This recommendation should be implemented only when both the local director and the secondary school administrator for the Area feel that the necessary time of community preparation has taken place. The idea was discussed with most of the secondary school directors and from these discussions as well as background knowledge of the communities involved it is evident that few of the schools are located in communities where the stage of social development is at a level that would enable the community to furnish members who would be able to render practical aid and have the interest of the school and/or community as a primary concern, with priority over personal ambition. It is noteworthy, however, that at two posts such a local council was formed to initiate the necessary negotiation for beginning new classes for the junior high level and some years following. One of these posts was Kapanga where such a council had been initiated by the paramount chief of the Lunda tribe who resides nearby and the council was arousing a vital community interest in providing secondary school facilities for the locality.

This advisory council could serve as a support group for the school and at the same time contribute to national development by interpretation of the school to the community. Although the schools originated as an agency imposed from the outside and sponsored by the Board, they are now a part of the national system and largely supported by the government and thus in one sense already are an agency of the community but for which it has not assumed ownership. Such a group has a potential of being a vital link between the school and the community for material aid; in such activities as continuing education for adults, cooperation for obtaining food supplies for the boarding department, and
encouragement of school support by both local philanthropic sources and former students.

The group should be composed of not more than seven members from the community including members of the UMCC but not limited to the UMCC. Any member of the Area Council on Education could automatically be a member of the local council where he resides, helping to form the group and give initial leadership. The local director would be an ex-officio member unless he is also a member of the Area Council on Education.

Specific Recommendations

The specific recommendations for aspects treated in this study are made on the basic assumption that the overall recommendations numbers 1 and 2 have been accepted and implementation has been projected.

Finance

Several serious situations became apparent related to the financial situation of the schools both currently and as far as the future is concerned. Not only was there confusion about the operational budget, there was little planning for the future and particularly as related to the maintenance of property, a responsibility which the government has not undertaken. The following recommendations would correct some of the present conditions and give a sound direction for the future.

1. That an accurate review of the balances of accounting to all funds received for educational purposes by the legal representative, or the treasurer of the Annual Conference, be made in order to have a point of departure and that thereafter quarterly reports be presented to the Area Council of Education for review.
This recommendation results from the absolute confusion that reigned for these aspects. These funds would include Board funds for both schools and boarding departments for all levels, subsidies from the government for schools and boarding departments, as well as subsidy received for certain missionary expatriate teachers as salary payment. At the time of the study all capital funds were transmitted directly by the Board Branch Treasurer to the person in charge of construction at the school post. These funds should also be controlled by the Area Council on Education in so far as this is consistent with the designation from the course of funds.

2. That an inventory be made of the property of the UMCC which is used by national education (school buildings and equipment, boarding departments and equipment, and housing for personnel) and that an assessment of this property be established.

Such an inventory would be useful to the Board in recording its investment in educational facilities but of more importance to the UMCC in having these kinds of records in the event that the schools should be completely nationalized in the future.

3. That the annual disposition of the Board funds for recurring budgets for education for each conference be the responsibility of the Area Council on Education with counsel from the supervisors/administrator and with shifts toward the division by levels as follows: primary 30%, secondary 50%, higher education 20%.

The amount forwarded by the Board is designated as to Annual Conference but the UMCC can make adjustments among the levels. This division of school monies is the recommendation by Harbison and Myers for countries at the stage of development of the RDC in order to strengthen technical sections. Although the UMCC does not have a
recognized technical section, the science sections at Katubue and Mulungwishi feed students into the scientific colleges of the universities. Such a shift could strengthen other science sections without equipment. Although the actual amount of funds shifted on the part of the UMCC will be almost insignificant in comparison to the total because of the large portion of support given by the government, such change would be one means of strengthening the secondary schools.

4. That study be made to calculate the amount needed for maintenance of the present property used for national education and that provision be made for this need annually.

At the time of the field trip there was no provision in the operating budget for maintenance of property. The tropical elements together with non-western values of care of property make maintenance costs relatively high. Consultation with construction engineers established an annual amount equal to about 5 percent of the building cost as a workable figure for maintenance of buildings of permanent construction.

One source of such funds could be found in setting aside a portion of the recurring Board budget for this purpose. Another would be the interest accrued if an investment of funds such as those received for missionary personnel under the government arrangement for general technical assistance were made. This type of funding can be expected to decrease as the country develops and more Congolese are qualified for secondary level teaching.

5. That special attention be given to see that funds designated particularly for boarding departments reach the designated unit with a minimum of deduction.
The educational hierarchy of the UMCC tended to hold these funds. Also, the conferences make provision for the operation of the offices of the supervisors by deducting a percentage from all funds forwarded, including the boarding department subsidies.

6. That students accepted to enter third year be required to pay a portion of the fee as registration in order to insure holding a place in a particular school.

This recommendation is made as a result of the problem at all schools except Mulungwishi. When a list of those accepted for entrance is determined and announced only a part of the group arrive at the opening of school and with others who also applied taking places in schools of their second choice.

Administration

Note has already been made that the directors generally meet the government requirements but are at the same time lacking in needed professional skills, especially in administrative competency.

1. That in-service training in administration for secondary school directors be a priority consideration.

Attention to two aspects is noted: (a) a special seminar, such as a summer session, provided and mandatory for all directors and assistant directors and that leadership be sought from among those familiar with the UMCC, trained in educational administration, and with experience as a director in one of the schools of the system. (b) Counseling by the secondary school administrator through reports and visits to the institutions while school is in session. Techniques for offering in-service training in pedagogy for those without such should be included in the director's training session.
2. That a seminar for heads of boarding departments be planned to help them with both financial management and nutrition planning.

Assistance should be sought from those who have had experience in the two aspects. Training should include plans for projected gardens, orchards, small livestock for the use of the boarding departments.

Teachers

1. That priority be given to the recruitment of qualified teachers with acceptable moral qualities from among the larger number of Congolese who are now completing training at the Middle Normal schools and the university.

This will allow for the transfer of the instituteurs (D6) to strengthen the primary school system and can alleviate both the discontinuity created by the use of expatriates and their relative higher cost to the government.

2. That attention be given to an equalization of distribution of personnel according to the specialization of the person for all subjects but particularly for qualified teachers of religion.

Generally the qualifications of a teacher were matched with the teaching subject but the distribution for teachers of religion was poor with three pastors at one post and a high school graduate carrying the full load of religion classes at another post.

3. That special attention be given to insure that the French in the junior high level is taught by well-qualified teachers of French.

The program requires eight to ten hours of French instruction per week for each year and using qualified teachers for these classes should help to overcome the language problem for the years that follow.
4. That students with interest in secondary teaching be directed toward the Middle and Higher Normal schools.

The Middle Normal School prepares teachers for the lower levels of secondary school and the Higher Normal School trains teachers qualified for the upper classes. In recent years all graduates have been bound for the more prestigious universities but where the preparation for teaching is longer and not currently available at all branches of the university.

Facilities

1. That building plans for any school facilities under the auspices of the UMCC be reviewed and approved by the Area Council on Education with special attention to government regulations and other imperatives of good construction in the tropics.

Formerly plans for buildings being built with Board funds had to be submitted to a committee in the U.S. office but this regulation is not in vigor at the present. However, most of the recent construction that has been undertaken has been supervised by expatriate construction engineers and no problem has arisen. A blatant example of poor construction which ignored normal considerations was the structure being erected in Luluabourg.

2. That repairs of boarding facilities with needs as cited be undertaken as soon as possible.

3. That future maintenance of present buildings and facilities be given high priority. (See Finance No. 4 above.)

4. That a study be made to indicate early replacement needs for certain present facilities with consideration of the type of construction and length of time in use.

5. That plans be initiated immediately for establishing gardens, orchards, and small livestock projects at each school maintaining a boarding department.
Such projects will contribute to national development by giving experience in such areas for students and at the same time will make for additional immediate provisions for the dining hall of the boarding department.

6. That a committee of teachers of English be named to prepare a list of English books appropriate as supplemental reading to be added to school libraries as possible.

English is taught in four years of secondary school. No library had materials in a quantity sufficient to be adequate for supplemental reading for such an extensive program.

7. That each library seek subscriptions to national newspapers and news periodicals.

Few libraries had any periodicals. Local transportation presents a real impediment to receiving such publications either promptly or on a regular basis. Former students and interested commercial people could be encouraged to offer subscriptions on an annual basis.

8. That measures be taken to eliminate the existence of a demonstration school and a central primary school on the same post and to prevent the creation of such situations in the future in order to avoid potential social problems arising from differing standards.

This kind of situation existed at Lodja and Wembo Nyama. When it was brought to the attention of the Special Education Committee, the disapproval of such a situation by those from other localities was sufficient to order that the situation be corrected immediately.

9. That a list of the basic equipment for needed science instruction for junior high school, and the third and fourth years in science and pedagogy sections be established as a checklist for obtaining such material for each school with these sections.
Although the science program for these years is minimal, certain pieces of equipment and materials are essential for the teaching program in science and should be provided.

10. That teachers be encouraged and aided in providing their own housing, and that studies be undertaken by the UNCC to this end.

This is one of the most crucial problems related to the secondary schools. Colonial law gave the basis for the employer to furnish housing. The UNCC does not have available such resources for construction as would be necessary to meet the need even if there were a true validity for such an agreement at present. This is a problem to tax the ingenuity of the most able leaders.

Students

1. That the UNCC cooperate in any efforts made to provide added instruction by radio or television, particularly for teaching French in primary and junior high levels and that means be sought to use a portion of its budget for radio for local efforts in this direction.

Two pilot projects utilizing instruction of French by radio were in progress at the time of the study and similar methods had been successfully employed in Senegal according to the Catholic Office of National Education.

2. That added attention be given to provide the most healthful diet possible with the funds at the disposition of the boarding department.

This is related to recommendation No. 2 under Administration.

To provide such a diet with given funds available requires careful planning but it is not impossible as shown at a couple of the boarding departments which had achieved well in this area.
3. That means be sought to aid urban schools with provision for their school population: study hall, one meal a day.

No provision was made for the welfare of students in urban schools beyond their classroom participation. If a meal were made available at mid-day, provision for a study hall could easily be arranged for afternoon hours since generally the majority of classes are scheduled for the morning. Most posts with boarding departments had supervised study hall during the evening hours but local conditions related to safety of persons render evening participation unwise for students in urban centers.

4. That added emphasis be given to information about hygiene and nutrition as general knowledge for the development of the person.

Testing showed very poor results on items related to hygiene and nutrition. Hygiene should include sex education.

5. That as the culture permits more heterosexual social experiences be provided within the school setting and with opportunity for discussion of the bride price, marriage, and family life in Africa.

This will have to be implemented with caution and wisdom by Africans who are able to supervise such activities due to the cultural limitations relative to heterosexual social gatherings. Also the cultural standards vary slightly from one locality or tribe to another.

6. That the new programs of post-primary terminal courses be initiated at several posts immediately and that strong efforts be made to orient a large number of students to these sections.

These programs were a recent offering by the government as emphasis was shifted from university preparatory courses to terminal vocational courses. One of the social problems that has evolved from the emphasis
upon university preparation was the large number of young people who had followed the preparatory courses only to find no place and have no vocational skill to enter the labor market.

7. That the provisional pedagogy program admitting fifth year finishers to qualify for primary teaching be provided by seeking cooperation with Union Secondary School Katubue for such a one year program.

This was also an effort to utilize youth who had not qualified for higher training but who with professional instruction in pedagogy could provide additional teachers for the primary schools. The recommendation to cooperate with Union Secondary School Katubue is made because of its central location to all of the Area as well as its quality of staff to carry such a program.

8. That special encouragement continue for girls entering post-primary levels by provision of homemaking terminal sections, separate junior high school sections where already in function, and through supervised study at mixed sections.

The question of what is the best method to provide education for girls is perennial with the UMCC as well as other agencies at work in central Africa, given that after considerable effort in this area only one-third of the primary school enrollment is female and only 15 percent of the high school population are girls. Some think that because of the cultural attitude of inferiority of girls, along with taboos on heterosexual association of adolescents that provision should be made for separate education for girls. This encounters the usual problems of maintaining separate but equal schools and seems a limiting approach for preparing youth for the world of the latter third of the twentieth century with women participating more actively in the total society in
Africa as well as in other parts of the world. Special sections of the newly initiated vocational terminal course with emphasis upon the home-making arts is encouraged for the majority of girls completing the primary level but otherwise the writer finds it generally preferable to encourage a girl to enter mixed sections in the curriculum of her choice after completion of the junior high program. Although the results realized when girls who have attended separate classes at the junior high level continue in higher classes is noteworthy, no new sections are recommended but rather that emphasis should be placed on specially supervised study hours for girls.

9. That the Area Council on Education continue study to propose to the government a program to train girls for leadership in community centers and in kindergarten education, and that such a program be initiated as a section for girls at Mulungwishi.

This recommendation is based on several factors: (1) the UMCC missionaries have been pioneers in developing programs for girls and women both of an academic nature and the informal style used in community centers; (2) the need for kindergarten experiences for Congolese children is widely recognized; (3) such a program is lacking on the part of the government. Mulungwishi has had a separate curriculum for girls in social work but which is lacking in meeting the needs of both the UMCC and other educational agencies. This is not in contradiction of No. 8 above but a provision for an additional vocational choice for girls.

10. That closer guidance be given to orient those students showing special aptitude in science toward the appropriate section at Mulungwishi or Katubue.
This results from the recognition that the science section of these two schools are far superior by virtue of both qualified teachers and adequate equipment and materials.

These recommendations for both overall organization and the meeting of specific needs have been made with the knowledge that they can feasibly be implemented and by so doing the quality of education provided by the UMCC and the national Ministry of Education can be improved. At the same time young people can be aided in a fuller development of their total life.

An abbreviated document of findings and including all of the above recommendations was presented to the Board in August 1971 and after translation into French, copies were sent directly to members of the Special Education Committee in September 1971. Implementation of the recommendations is pending until such time as the Annual Conferences are ready to empower the group through their representatives to take full responsibility for the operation of the schools. Although the Special Education Committee in session in October 1971 approved the recommendations with the most minor exceptions they were also aware that their work was completed until such time as they were given more authority. From the beginning of plans for this study there was recognition that the action of the Annual Conferences was unpredictable and that the ultimate usefulness of the study for the UMCC would remain in their hands.
Instrument I

Questionnaire for Obtaining Pertinent Background Information Supplied by Secondary School Directors
ETUDE DES ECOLES SECONDAIRES DE L'ULUCC
STUDY OF THE SECONDARY SCHOOLS OF THE ULCC
FORMULAIRE I

A. Otre rempli par la direction de chaque établissement scolaire de niveau secondaire. To be filled in by the principal of each secondary school.

Nom de l'école: Name of the school: ________________________________

Localité: Location: ________________________________________________

Adresse postale: Postal address: ______________________________________

Quel(s) est (sont) le (les) programme(s) de l'école? Encerclez-le (s). What are the programs followed by the school?

Science-biologie-Chimie Science-math-physique Littéraire-Latin Littéraire-
Linguistique

Pédagogie Commerciale Socio-familiale Agriculture Monumérico

Infirmier Théologie


6-0.1 6-0.2 30 40 50 60

De quelle distance votre établissement scolaire du niveau secondaire est-il situé en rapport d'un autre le plus proche (ici il s'agit d'un établissement de même niveau: Catholique ou Officiel etc...) What is the name of the school?

Qual est le nom de l'école? What is the name of the school?

Localité: Location: ________________________________________________

Adresse postale: Postal address: ______________________________________

Association encadrante: Sponsor of the school: __________________________

Bâtiments: (Incluant l'école) Buildings (including school)

Type de construction: Type of construction: ____________________________

Nombre de salles de classe: Number of classrooms: ______________________

Autres bâtiments (exemples: bibliothèque ou bureau etc...) Other buildings (e.g., library or office)

(Pouvez-vous fournir les dimensions d'une salle de classe typique?)

Dimensions of a typical classroom:

Objets classiques: Classroom materials, books, etc...

Pour l'année scolaire 1969-1970, quels objets classiques ont été fournis à l'élève? What materials were furnished to students in 1969-70?

Pour l'année scolaire 1969-1970, quels objets classiques (y compris livres) ont été loués aux élèves? In 1969-70, what materials were rented to students?

Quel est le taux de frais de scolarité par élève? How much are school fees per student?
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<th>Date de Naissance</th>
<th>Titre</th>
<th>Do quelle Ecole Supérieure?</th>
<th>En quelle Option?</th>
<th>Ancienneté</th>
<th>Branche enseignée</th>
<th>heures/semaine</th>
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<tbody>
<tr>
<td>Name</td>
<td>sex</td>
<td>birthdate</td>
<td>degree</td>
<td>from what school</td>
<td>Field</td>
<td>Tenure</td>
<td>Teaching subjects</td>
<td>hrs/week</td>
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Staff: Commences avec la direction! Staff qualifications beginning with the principal.
### Finances: School (Internat exclu) Finance: School without boarding dept. (A)

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<tr>
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<tbody>
<tr>
<td><strong>Recettes:</strong></td>
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<tr>
<td>• Gouvernement <em>government including salaries</em></td>
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<tr>
<td>• Société de la Mission Board</td>
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<tr>
<td>• Frais de scolarité <em>Fees</em></td>
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<tr>
<td>• Autres <em>Other</em></td>
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<tr>
<th>Dépenses: Disbursements</th>
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<tbody>
<tr>
<td>• Administration <em>salaries of principals</em></td>
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<tr>
<td>• Autres (bureau) <em>office expense</em></td>
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<tr>
<td>• Professeur <em>Teachers’ salaries</em></td>
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<tr>
<td>• Objets classiques <em>Classroom materials</em></td>
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<tr>
<td>• Matériaux didactiques <em>Teaching materials</em></td>
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<tr>
<td>• Entretiens <em>Upkeep</em></td>
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<tr>
<td>• Services (eau, électricité, etc...) <em>Utilities</em></td>
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<td><strong>Total</strong> <em>Total</em></td>
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</table>

**B. Budget Extraordinaire Non-recurring budget**

<table>
<thead>
<tr>
<th>Pour quels buts? <em>For what purpose?</em></th>
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</thead>
<tbody>
<tr>
<td>Combien la dépense? *What was the amount of disbursement?</td>
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</table>

| **Recettes:**                                            |         |         |         |
| • Gouvernement *Government*                              |         |         |         |
| • Société de la Mission Board                            |         |         |         |
| • Local *Local*                                          |         |         |         |
| • Autres *Others*                                        |         |         |         |
| **Total** *Total*                                        |         |         |         |

**C. Bourses: Scholarships**

<table>
<thead>
<tr>
<th>Combien d’élèves bénéficient d’aide from scholarships?</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Combien d’une bourse? <em>How many students benefit from a scholarship?</em></td>
<td></td>
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</tbody>
</table>

| Lo moyen du montant? *What is the average amount?*       |         |         |         |
B. **Boasting** (Exemple: Les garçons et les filles) Encore un lo
Boarding department: Fill out a separate sheet for boys and girls

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</table>

**Bâtiments: Buildings**
**Type de construction: Type of construction**

À quoi servent ces bâtiments? What is the use of the buildings?

Combien en touc sont utilisés par l'internat? How many buildings in all are used by the boarding dept?

Nombre d'employés à plein temps par l'internat? How many full-time employees in the boarding dept?

(nombre d'élèves qui travaillent par semaine. Avo. hrs./week per student)

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Recettes: Receipts</td>
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<tr>
<td>Salaire: Salary</td>
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<td>Nourriture: Food</td>
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<tr>
<td>Equipement: Equipment</td>
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<td>Salaires: Salaries</td>
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<td>Autres: Other</td>
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<td>Total: Total</td>
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</tbody>
</table>

**B. Budget Extraordinaires?** Expliquez.
Non-recurring budget - Explain.
Instrument II

Observation Checklist Used by the Investigator
I. General observations:

II. Teachers:
Sample check on teaching:
(1) atmosphere, attitude
(2) use of materials
(3) Methods
(4) Innovation, creativity
(5) Pupil comprehension
Extracurricular and community participation

III. Facilities:
Type of construction, condition
Adequacy for class size
Ventilation, lighting
Utilization of classroom space (hours per day)
Other rooms
IV. Teaching materials:  

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>QUALITY</th>
<th>USE</th>
</tr>
</thead>
</table>

Athletic  
Math  
Science  
Geography  
Other  
Library

V. Boarding Department:  

- Type of dormitory  
- Size of rooms  
- Number per room  
- Kind of bed and storage available  
- Dining Hall:  

  - Equipment  

  - Content of a day's meals

VI. Medical facilities:  

- Type  

- Arrangement for students  

- Requirements for school admission
VII. Students:

Extra-curricular activities:
- scholastic, club, athletic
- religious
- civic
- other

Work experience: At school
- hours per week
- how many students?
- gardens
- dining hall
- office
- library
- book depot
- athletic dept.
- medical dept.
- other

Miscellaneous reminders:
- Trace select pupils through several years of schooling.
- Obtain a school schedule of the current year.
- Examine the terminal examinations in major subjects.
Instrument III

Specimens of Tests of Mental Ability and General Knowledge Used in the Study
Example of type of questions. This was used at the preliminary session with the students on a group basis as a learning process.

Voici quelques phrases dont vous devez choisir une parmi plusieurs réponses pour répondre correctement. Choisissez votre réponse et écrivez le nombre ou la lettre qui précède la réponse sur la ligne indiquant le numéro de la phrase ou question. Il y a un exemple de simple calcul dont il faut écrire la réponse seulement.

1. Indiquez le pays africain où l'on trouve des pygmées.
   A. La République Démocratique du Congo (RDC)
   B. La Nigéria
   C. Le Sénégal
   D. La Côte-d'Ivoire

2. En quelle année la RDC est-elle devenue indépendante?
   A. en 1908
   B. en 1953
   C. en 1961
   D. aucune date précitée n'est exacte

3. Lequid des cinq mots suivants indique ce-qu'est une pomme?
   A. une fleur
   B. un arbre
   C. un légume
   D. un fruit
   E. un animal

4. Le pied est à l'homme et la patte est au chat ce que le sabot est
   1. au chien
   2. au cheval
   3. au fer
   4. au forgeron
   5. à la salle

5. À quatre makuta chacun, combien coûteront 6 crayons?

6. Lequid des cinq mots suivants signifie l'opposé de Nord?
   1. Pôle
   2. Équateur
   3. Sud
   4. Est
   5. Ouest

7. Il est certain que le Katanga Oriental est très riche en minéraux. Pour cette raison Lubumbashi, chef-lieu de cette province est communément appelé:
   A. capital de diamant
   B. capital de cobalt
   C. Capital de uranium
   D. capital de cuivre

8. La fleuve Congo est le fleuve le plus long au monde.
   A. vrai
   B. faux
   C. incertain

Résponsa:

1. ______ A
2. ______ D
3. ______

4. ______
5. ______
6. ______

7. ______
8. ______
**Answer sheet used with testing instruments.**

<table>
<thead>
<tr>
<th>Nom</th>
<th>Endroit</th>
<th>Le numéro sur le cahier d'exercices</th>
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</tbody>
</table>
Test commence ici.

1. Le contraire de haine est:
   1. amitié
   2. mœurs
   3. amour
   4. ami
   5. joie.

2. Si trois crayons coûtent 2 $ 25, combien en aurait-on pour 22 $ 50?

3. Le contraire de honte est:
   1. joie
   2. honte
   3. lâcheté
   4. crainte
   5. défaite

4. Une colombe ressemble surtout à :
   1. un pigeon
   2. une perdrix
   3. une hirondelle
   4. une poule

5. Le rapport entre calme et bruit est de même nature que celui entre ombre et:
   1. cave
   2. clarté
   3. bruit
   4. silence
   5. bruyant

6. Une réunion se composait d’un homme, de sa femme, de ses deux fils et de leurs femmes, et des quatre enfants de chacun des fils. Combien il y avait des personnes?

7. Un arbre a toujours:
   1. des feuilles
   2. des fruits
   3. des bourgeois
   4. des racines
   5. une ombre.

8. Le contraire d’économique est:
   1. bon marché
   2. ladre
   3. coûteux
   4. prix
   5. riche.

9. L’argent est plus cher que le fer parce qu’il est plus:
   1. lourd
   2. rare
   3. blanc
   4. dur
   5. beau

10. Laquelle des six phrases ci-dessous donne la signification du proverbe: "A bon chat bon rat."
    1. La fumée crêpe le feu de prendre.
    2. Il y a de bons chats qui détruisent les rats.
    3. Il n’y a pas d’effet sans cause.
    4. L’or attire les voleurs.
    5. On trouve souvent un adversaire digne de soi.
    6. L’estime publique veut mieux que la richesse.

11. Laquelle des six phrases ci-dessous donne la signification du proverbe: "Donne renommée vaut mieux que ceinture dorée."

12. Laquelle des six phrases ci-dessous donne la signification du proverbe: "Pas de fumée sans feu."

13. Le rapport entre la lampe électrique et bougie est de même nature que celui entre automobile et:
    1. charrette
    2. électricité
    3. pneu
    4. lumier
14. Si un enfant peut courir à raison de 2 mètres en 1/3 de seconde, quelle distance peut-il parcourir en 10 secondes?

15. Un repas suppose toujours:
   1. une table
   2. des plats
   3. de l'appétit
   4. des aliments
   5. de l'eau.

16. Des cinq mots ci-dessous, quatre en ont entre eux un certain rapport. Quel est celui qui n'en a pas avec ces quatre-là?
   1. couche
   2. rasoir
   3. hachis
   4. tranché
   5. cisaillage

17. Le contraire de jamais est:
   1. souvent
   2. parfois
   3. quelquefois
   4. toujours
   5. fréquemment

18. Le rapport entre horloge et temps est de même nature que celui entre thermomètre et:
   1. montre
   2. chaud
   3. colonne
   4. mercure
   5. température.

19. Lequel des mots ci-dessous donne à la phrase suivante son sens le plus vrai: "Les hommes sont plus petits que les femmes"?
   1. toujours
   2. habituellement
   3. beaucoup
   4. rarement
   5. jamais

   a b c d e f g h i j k l
   1 4 2 5 3 6 4 7 5 9 6 9

21. Si les deux premières affirmation ci-après sont vraies, la troisième est:
   Tous les membres de ce club sont catholiques. Jean n'est pas catholique.
   Jean est membre de ce club.
   1. vraie
   2. fausse
   3. incertaine.

22. Dans une course il y a toujours:
   1. un arbitre
   2. des concurrents
   3. des spectateurs
   4. des bravos
   5. un prix

23. Lequel des noms ci-dessous ce trouve répété le premier?
   6 4 5 3 7 8 9 0 9 5 9 8 8 6 5 4 7 3 0
   8 9 1

24. Le rapport entre la lune et la terre est de même nature que celui entre la terre et:
   1. Mars
   2. le soleil
   3. les nuages
   4. les étoiles
   5. l'univers

25. Lequel des mots ci-dessous donne à la phrase son sens le plus vrai?
   "Les pères sont plus sages que leurs fils"
   1. toujours
   2. habituellement
   3. beaucoup
   4. rarement
   5. jamais
26. Le contraire de gauche est:
   1. fort  3. petit  5. vif
   2. joli  4. aéropt

27. Une mère est toujours plus ______ que sa fille?
   1. sage  3. pressée
   2. grande  4. vieille  5. riède

28. Laquelle des six phrases ci-dessous donne la signification du proverbe:
   "chat échaudé craint l'eau froide."
   1. L'ordre règne quand disparaît l'autorité.
   2. Le souvenir du danger rend prudent, même timide.
   3. On juge un homme à ses notes.
   4. Ce sont les mœurs qui construisent les murs.
   5. Les petits animaux éteint de jouer en présence des gros.
   6. Le chat préfère l'eau chaude à l'eau froide.

29. Laquelle des six phrases ci-dessous donne la signification du proverbe:
   "Je partai, les souris danse."  

30. Laquelle des six phrases ci-dessous donne la signification du proverbe:
   "Celui au pied du mur qu'on connaît le maçon."

31. Si un différend est réglé grâce à des concessions réciproques, on dit qu'il y a eu:
   1. promotion  3. injonction
   2. compromis  4. cécution  5. restitution

32. Le rapport entre accident et attention est de même nature qu'entre maladie et:
   1. docteur  3. pharmacien
   2. chirurgie  4. hôpital  5. hygiène

33. Des cinq mots ci-dessous, quatre ont entre eux un certain rapport. Quel est celui qui n'en a pas avec les quatre là?
   1. fraudeur  3. tricher
   2. voler  4. dérober  5. vendre

34. Si 10 caisses remplies d'oranges pèsent en tout 400 kg, et chaque caisse pèse h kg, quel est le poids total des oranges?

35. Le contraire de engagement est:
   1. déseoir  3. foi
   2. naiveté  4. incrédulité  5. méchanceté

36. Si toutes les lettres impaires de l'alphabet étaient barrées, quelle serait la dixième lettre non barrée?
   Copiez-là, amis ne touchez pas à l'alphabet:
   abc defghijklmnopqrstuvwxyz

37. Quelle lettre dans le mot "un personnel" occupe le même rang (à compter du début) qui dans l'alphabet?

38. Ce que les gens disent d'une personne constitue sa:
   1. personnalité  3. réputation
   2. caractère  4. tempérament  5. mèdiance.
39. Si 7 m 50 de drap coûtent 100 K, que coûtent 6 m?

40. Si les mots ci-dessous étaient remis en ordre pour former une phrase consacrée, par quelle lettre finirait le dernier mot?
Indiquez-la par une majuscule d'imprimerie:
perdill - cet - gros - gras - presque - à

41. Si les premières affirmations ci-après sont vraies, la troisième est:
George est plus âgé que Paul. Jacques est plus âgé que Georges. Paul est plus jeune que Jacques.
1. vraie 2. fausse 3. incertaine

42. Supposez que la première et la deuxième lettre du mot "Constitutionnel" soient interchangées, de même la troisième et la quatrième, la cinquième et la sixième, etc... Copiez la lettre qui serait alors la deuxième du début.

43. Un des nombres de la série ci-dessous est faux.
Indiquez celui qu'il faudrait:
0 : 3 6 10 25 50 28 34

44. Si 7 m 50 d'étoffe coûtent 90 K, que coûtent 2, 5 m?

45. L'importance d'un homme dans la société devrait dépendre de son, sa, ses
1. relations 2. riches 3. valeur 4. ambition 5. naissance

46. Le rapport entre banal et exceptionnel est de même nature que celui entre peu et:
1. moins 2. quelque 3. beaucoup 4. plutôt 5. aucun

47. La contrarié de perfide est:
1. radicale 2. brave 3. sage 4. cruel 5. loyal

48. Lequel des cinq mots ci-dessous ne ressemble pas aux quatre autres:
1. bon 2. grand 3. rouge 4. marché 5. épais

49. Si les deux affirmations ci-après sont vraies, la troisième est:
Quelques-uns des fils de Dupont sont Juifs.
Quelques-uns des fils de Dupont sont banquiers.
1. vraie 2. fausse 3. incertaine

50. Combien de mots ci-dessous peuvent être formés en se servant exclusivement des lettres du mot "largeur" employées une ou plusieurs fois?
garage - rageur - gageur - erreur - alarme - ruelle - grugor

51. Dire que la lune est un gros œuf blanc, c'est:
1. absurde 2. trompeur 3. injuste 4. vicieux 5. problématique
52. Des cinq choses ci-dessous, quatre en ont entre elles un certain rapport. Quelle est celle qui n'en a pas avec ces quatre là?
   1. goudron  3. suie
   2. neige     4. ébène
   5. charbon

53. Le rapport entre carré et cercle est de même nature qu'entre cube et:
   1. solide
   2. circonférence
   3. sphère
   4. angles
   5. épaisseur

54. Si les mots ci-dessous étaient vus sur un mur, mais en regardant dans une glace faisant face à ce mur, lequel a paraîtrait exactement comme s'il était vu directement?
   1. OHIO
   2. COR
   3. MOR
   4. MOTOR
   5. OTTO

55. Si une bande de toile de 24 cm n'a plus, après lavage, que 22 cm, quelle sera, après lavage, la longueur d'une bande de même toile de 36 cm?

56. Lequel des mots suivants désigne une qualité morale?
   1. morale
   2. estime
   3. bonheur
   4. générosité
   5. respirer

57. Cherchez dans le mot "loing" deux lettres qui soient séparées dans ce mot par autant de lettres qu'elles le seraient dans l'alphabet et indiquez celle de ces deux lettres qui vient avant l'autre dans l'alphabet:
   A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

58. Le rapport entre révolution et évolution est de même nature qu'entre voler et:
   1. oiseaux
   2. tourbillonner
   3. marcher
   4. ailes
   5. respirer

59. Un des nombres de la série ci-dessous est faux.
   Indiquez celui qu'il faudrait:
   1 3 9 2 81 108

60. Si René fait 300 m en bicyclette, tandis que Georges en fait 200, combien René aura-t-il parcouru de mètres quand Georges en aura fait 300?

61. Dans la série ci-dessous, compter chaque H suivi d'un 0, à condition que cet 0 ne soit pas suivi d'un T.
   Combien en avez-vous trouvés?
   H O R T O N H O N O N O H O N O N O H O N O N O H O N O N

62. Quelle est la lettre qui est à mi-chemin de 0 et S?
63. Dans la figure ci-dessus, quel nombre est à la fois dans le rectangle et le triangle mais pas dans le cercle?

64. Dans le même dessin, quel nombre se trouve dans les mêmes figures géométriques que le nombre 5?

65. Combien comptez-vous d’espaces qui sont partiel de deux des figures géométriques ci-dessus, mais de deux seulement?

66. Le rapport entre la surface et la ligne est de même nature que celui entre la ligne et le ou la:
1. volume
2. plan
3. courbe
4. point
5. corde

67. Si les deux affirmations ci-après sont vraies, la troisième est:
- On ne saurait devenir bon violoniste sans beaucoup de travail.
- Charles travaille beaucoup son violon.
- Charles deviendra un bon violoniste.

1. vraie
2. fausse
3. incertain.

68. Si les mots ci-dessous étaient réunis en ordre pour former une phrase simple et sensée, par quelle lettre commencerait le cinquième mot de cette phrase? Faites une majuscule d’imprimerie:
- Un siècle de fléaux la des cancer de est terribles.

69. Un mélange est composé de 2 parties de crème et de trois parties de lait. Combien de litres de crème faudrait-il pour préparer 15 litres de ce mélange?

70. Un fil de fer de 20 cm. doit être coulé de telle façon qu’un des deux morceaux soit les 2/3 de l’autre. Quelle sera la longueur du morceau le plus court?

SI VOUS TÉLÉNEZ AVANT L’HEURE,
RELISEZ-VOUS ET CORRIGEZ VOS RÉP.-GRS.
La Connaissance Générale

1. Laquelle des nourritures suivantes est la plus riche en la protéine:
   A. le riz   C. les fruits
   B. les feuilles de cassava   D. la viande

2. J'ai acheté un bic pour 10 K, du papier pour 35 K, et un livre pour 123 K. J'ai donné deux billet de 1 Z à l'attendant de la papeterie. Que me faut-il comme monnaie de retour?
   A. un billet de 20 K, une pièce de 5 K, trois pièce de 1 K
   B. un billet de 20 K, un billet de 10 K, deux pièce de 1 K
   C. trois billet de 10 K et une pièce de 5 K
   D. un billet de 50 K, un billet de 10 K, huit pièce de 1 K

3. Lequel de ces corps est le plus proche à la terre?
   A. les étoiles   C. le soleil
   B. la lune   D. la planète Mars

4. Entre quelles de ces villes l'heure de Greenwich sera-t-elle la plus grande?
   A. Kinshasa et Nairobi   C. Kinshasa et Lubumbashi
   B. Brazzaville et Kisangani   D. Kisangani et Lubumbashi

5. Pour envoyer une lettre par la poste à l'étranger par avion il faut retirer les timbres de 11,6 K pour le premier 5 g et 4 K de plus pour chaque 5 g de plus. Combien de timbres faut-il attacher pour une lettre qui pèse 15 g?
   A. 11,6 K   C. 15,6 K
   B. 15 K   D. 19,6 K

6. Parnonne n'osera-t-il le contredire.
   A. Pronom interrogatif
   B. Nom commun
   C. Pronom indéfini

7. Convlo il était beau dans son uniforme neuf!
   A. Conjonction
   B. Préposition   C. Adverbe
8. Mon appareil photographique, je l'ai payé cher.
   A. adjectif qualificatif
   B. adverbe
   C. adjectif indéfini

9. $\sqrt{16} + 9 = \begin{array}{l}
   A. 4 + 3 \\
   B. 5 \\
   C. 4 \times 3
\end{array}$

10. Deux triangles sont isocèles. Les angles à la base du
premier sont même mesure que l'angle opposé à la base du
second. On en déduit que ces triangles
   A. sont semblables si les angles à la base du
premier mesurent 60°.
   B. sont semblables dans tous les cas
   C. ne sont semblables en aucun cas

11. $\sin \hat{B} = \begin{array}{l}
   A. AC/BC \\
   B. AB/BC \\
   C. AC/AB
\end{array}$

12. La carte de la RDC montre que le fleuve Congo baigne
    3 chef-lieux de trois provinces d'ancienne division ad
    ministrative. Parmi les réponses suivantes, indiquez celle
    qui désigne les 3 chef-lieux:
    A. Kindu-Kongolo-Kabalo
    B. Bukavu-Kisangani-Kalemie
    C. Gemena-Katadi-Boma
    D. Kisangani-Bandanka-Kinshasa

13. Le mouvement de la terre autour d'elle même s'appelle:
    A. la rotation
    B. la gravitation
    C. l'évolution
    D. la révolution

14. Comment s'appelle la céréale dont se nourrissent la
    majorité des peuples d'Asie?
    A. la sarrasin
    B. le riz
    C. le blé
    D. le maïs

15. De ces trois produits: du cuivre, du café et de l'huile
de palme, indiquez deux entre eux qui sont extraits dans
    une même zone de végétation au Congo.
    A. Du cuivre et de l'huile de palme
    B. Du café et du cuivre
    C. Du café et de l'huile de palme

16. L'arc-en-ciel est un exemple d', de
    A. la décomposition de la lumière blanche
    B. un prisme
    C. une lentille
    D. la mise en point d'un rayon de la lumière
17. Le phénomène par lequel une chemise mouillée devient sèche est
   A. l'évaporation  C. la congélation
   B. l'ébullition  D. l'hydrogénation

18. Une pièce du métal qui a la qualité d'attirer sur le fer est
   A. un clou  C. un sel
   B. un moteur  D. un aimant

19. Le type de la nourriture qui aide le plus le corps humain
d'avoir de l'énergie est
   A. les hydrates de carbone  C. les lipides
   B. les protéines  D. les vitamines

20. Le taux annuel de taxe sur un immeuble dont la valeur est 4500 $ est de 2\%. Quel est le montant de la taxe?
   A. 90 $  C. 900 $
   B. 180 $  D. 225 $

21. Quand l'homme s'approche de l'âge où il peut se reproduire
il entre dans quelle étage de la vie?
   A. l'enfance  C. l'adolescence
   B. l'école  D. la vieillesse

22. Pour quelle classe le billet de train coûte-il la plus?
   A. 1e  C. 2e
   B. 2e  D. 4e

23. La condition d'éléphantiasis est associée avec la mordure
   A. d'une nacche  C. d'un mousquetaire
   B. d'une animale  D. d'un oiseau

Dans chacun des trois phrases suivantes vous trouverez un
mot dont la terminaison est soulignée. Si vous pensez que
Cette terminaison est correcte, choisissez la réponse "correct",
sinon choisissez une autre réponse.

24. Ils ont cueilli des pommes et ils en on mangé...
   A. correct  B. -s  C. -es

25. Le frère et la sœur se sont corrigé leurs versions.
   A. correct  B. -s  C. -es

26. Dès qu'il e fini de manger il s'en alla.
   A. -u  B. -ut  C. -ût

27. Le monôme $x^2yz$  A. n'a pas de coefficient
   B. est positif
   C. a pour coefficient -1
28. La raison pour laquelle Stanley est très bien connu dans l'histoire du Congo est
A. qu'il était grand humaniste
B. qu'il était poète noir-américain
C. qu'il était le premier à explorer le Congo
D. aucune de ces réponses n'est pas exacte

29. La seule et grande caractéristique des équinoxes consiste dans le fait que
A. il fait très froid à Bandaka
B. ils entraînent l'éclipse de la lune
C. les nuits sont aussi longues que les jours

30. Indiquez le mont le plus haut en Afrique:
A. Kundelungu  C. Kilimandjaro
B. Cameroun  D. Kenya

31. L'air atmosphérique contient:
A. l'azote et l'hydrogène
B. l'azote et l'argon
C. l'oxygène, l'azote, et le sodium
D. l'azote, l'oxygène, et d'autres gaz

32. Du point de vue de leur définition, les notions de chaleur et de température veulent dire la même chose (chaleur égale température).
A. vrai  B. faux  C. incertain

33. Un forgeron emploie les pinces à feu. Ces pinces sont un exemple d'un levier dans lequel
A. la résistance se trouve entre la force et le point d'appui
B. la point d'appui se trouve entre la résistance et la force
C. la force se trouve entre la résistance et le point d'appui

34. Le quotient de 7515 : 15 est
A. 15  B. 501  C. 51  D. 5001

35. Une phase de la lune se répète
A. en deux semaines  C. une fois par mois
B. en 28 jours  D. une fois par l'année

36. Laquelle des plantes suivantes sont unisexuées?
A. le bananier  C. le palmier
B. l'avocatier  D. le papayier
Dans chacun des trois phrases suivantes un mot est souligné. Vous devez indiquer quelle est sa fonction grammaticale.

37. Ecoutez bien, mes enfants, l'histoire que je vais vous conteer.
   A. sujet   C. apposition
   B. complément d'objet direct  D. apostrophe
   E. complément d'adverbe

38. Il fut atteint de la pesté et il en mourut.
   A. complément d'objet direct
   B. complément d'objet indirect
   C. complément d'attribution
   D. complément circonstanciel de cause

39. Il n'avait annoncé son mariage qu'à ses meilleurs amis.
   A. complément d'adjectif
   B. complément d'objet indirect
   C. complément de nom
   D. complément d'agent
   E. complément d'attribution

40. L'équation $x^2 + 4 = 0$
   A. n'a pas de racine
   B. possède une racine
   C. possède deux racines

41. Si les mesures a, b, c, des côtés d'un triangle sont telles que $a^2 = b^2 + c^2$ on peut affirmer que ce triangle est rectangle en appliquant:
   A. le théorème de Pythagore
   B. la reciproque du théorème de Pythagore
   C. le théorème de Thales

42. La capitale d'un pays est la ville la plus peuplée de ce pays.
   A. vrai  B. faux  C. douteux

43. Lubumbashi et Matadi sont situés à la même altitude.
   A. vrai  B. faux  C. douteux

44. Le jus de citron est un exemple d'un matérié qui contient
   A. une base  C. un métal
   B. un acide  D. un solide

45. Un bateau qui monte un fleuve est un exemple de deux forces réagissant
   A. dans les mêmes sens  C. dans les sens perpendiculaires
   B. dans les sens opposés  D. aucun de ces façons
46. La différence entre les méridiens et les parallèles consiste dans le fait que
   A. la distance entre les méridiens s'évalue en hectare tandis que celle entre les parallèles s'évalue en degré
   B. les méridiens sont perpendiculaires à l'équateur tandis que les parallèles sont parallèles à l'équateur
   C. il n'y a aucune différence entre les deux termes

47. On regarde la foudre et après on entend la tonnerre mais la science dit que les deux sont produits au même temps. Quelle est la raison pour ce phénomène?
   A. Il n'a pas une explanation
   B. La vitesse de rayon sonneur est plus grande que la vitesse de rayons lumineux
   C. La vitesse des rayons lumineux est plus grande que des rayons sonneurs.
   D. Ils ne se produisent pas simultanément.

Dans chacun des trois phrases suivantes un verbe est souligné. Vous devez dire à quel mode et à quel temps est ce verbe.

48. hème si vous avez échoué plusieurs fois, ne vous découragez pas.
   A. Indicatif présent
   B. Impératif présent
   C. Conditionnel présent

49. Dès le premier jour de la guerre, son usine était détruite par une bombe.
   A. Indicatif imparfait passif
   B. Indicatif plusque parfait
   C. Indicatif passé antérieur

50. Ecoutez, on dirait que l'orage se rapproche.
   A. Indicatif imparfait
   B. Indicatif futur
   C. Conditionnel présent
Instrument C- Mental Ability, Intermediate form, by Tshimanga Robert

Test commence ici :

1. Laquelle des cinq choses suivantes ressemble le moins aux quatre autres ?
   1. Mangue  
   2. Pomme  
   3. Orange  
   4. Balle  
   5. Banane.

2. Lequel des cinq mots suivants nous dit le mieux ce qu'est un marteau ?
   1. Chose  
   2. Outil  
   3. Heuble  
   4. Arme  

3. Lequel des cinq mots suivants est le contraire d'est ?
   1. Nord  
   2. Pôle  
   3. Ouest  
   4. Equateur  
   5. Sud.

4. La polure est à la banane ce que la conqueille est à ......................
   1. La pomme  
   2. L’oeuf  
   3. Da l’eau  
   4. La tomate  
   5. La poule.

5. Si nous sommes poinsés de la souffrance d’un autre nous éprouvons un sentiment de......................
   1. Haine  
   2. Pitié  
   3. Mépris  
   4. Désain  
   5. Ardeur.

6. Laquelle des cinq choses suivantes est la plus grosse ?
   1. Bourgeon  
   2. Branche  
   3. Arbre  
   4. Brindille  
   5. Rameau.

7. La laine est au mouton ce que les plus sont à ..............................
   1. Un oreiller  
   2. Un lapin  
   3. Un oiseau  
   4. Une chèvre  
   5. Un lit.

8. Quel mot veut dire le contraire de réussir ?
   1. Gaguer  
   2. Baisser  
   3. Faillir  
   4. Arriver  
   5. Essayer.

9. Laquelle des cinq choses suivantes ressemble le plus à ces trois-ci :
   pomme, mangue, papaye ?
   1. Graine  
   2. Arbre  
   3. Banane  
   4. Jus  
   5. Polure.

10. Lequel des chiffres suivants est le plus gros ?
    (Indiquez-le par la lettre)
    A. 6 456  
    B. 8 968  
    C. 4 265  
    D. 5 661  
    E. 4 108  
    F. 7 549  
    G. 2 335  
    H. 9 472  
    J. 3 286  
    K. 8 970

11. Le chapou est à la tête ce que le dé est à ..............................
    1. Un doigt  
    2. Une aiguille  
    3. Un fil  
    4. Une main  
    5. La couture.
12. Si l'on disposait les mots suivants de façon à former une bonne phrase par quelle lettre commencerait le dernier mot de la phrase ? (brevivez-la en majuscule)

ordinairement sont de faites les tables bois ................

13. À 3 makuta chacun, combien de crayons peut-on acheter avec 36 makuta ?
1. 12 crayons  
2. 11 crayons  
3. 8 crayons  
4. Aucune réponse n'est exacte.

14. Laquelle des affirmations dit le mieux ce qu'est une barrière ?
1. Un trou dans une clôture  
2. Quelque chose pour se balancer  
3. Elle a des gonds  
4. Une porte dans une clôture  
5. Elle s'ouvre et se ferme.

15. La main est au bras ce qu'un pied est à ..............................
1. Une jambe  
2. Un orteil  
3. Un doigt  
4. Un poignet  
5. Un genou

15. Quand on a imaginé une nouvelle sorte de machine on l'appelle ordinairement...
1. Une découverte  
2. Une adoption  
3. Une création  
4. Une nouveauté  
5. Une invention.

17. Un nombre est inexact vers la fin de la série suivante. Corrigez-le et le bon nombre dans la parenthèse, 5 10 15 20 25 30 35 39 45 50

18. Quelle est la raison la plus importante pour laquelle on a remplacé les voitures et les chevaux par les automobiles ?
1. Les chevaux deviennent rares  
2. Les voitures s'amballent souvent  
3. Les autos sauvant du temps et "du temps c'est de l'argent".  
4. Les autos sont meilleur marché que les voitures  
5. Les autos coûtent moins cher à réparer que les voitures.

19. Le charbon est à la locomotive ce que .................. est à une automobile ?
1. Motocyclette  
2. Funf  
3. Roues  
4. Gasoline  
5. Critard.

20. Lequel des mots suivants viendrait en premier lieu dans le dictionnaire ?
1. Tracteur  
2. Saint  
3. Rasoir  
4. Quart  
5. Peinture.

21. Un nombre est inexact vers la fin de la série suivante. Corrigez-le et mettez le bon nombre dans la parenthèse.
1 7 2 7 3 7 4 7 5 7 6 7 8 7
22. Une automobile est à une charrette ce qu'une motocyclette est à.............
   1. Marche
   2. Cheval
   3. Buggy
   4. Train
   5. Bicyclette.

23. Quand un garçon raconte des histoires farfelues de ce qu'il peut faire,
    on dit qu'il...........................
   1. Mont
   2. Truque
   3. Trompo
   4. Rainille
   5. Se vante.

24. Lequel des cinq mots suivants veut dire le contraire de difficile ?
   1. Dur
   2. Vite
   3. Nou
   4. Aisé
   5. Ordinaire.

25. Laquelle des cinq choses suivantes ressemble le plus à ces trois-ci :
    serpent, vache, moineau
   1. Arbre
   2. Poupée
   3. Cochon
   4. Plume
   5. Pois

26. Un hôpital est aux malades ce que.................... est aux criminels.
   1. Un médecin
   2. Un ami
   3. Un juge
   4. Une prison
   5. Une sentence.

27. Quelle affirmation nous dit le mieux ce qu'est un cheval ?
   1. Il a une queue
   2. Une chose vivante
   3. Une chose qui travaille et qui mange
   4. Un gros animal à 4 pattes
   5. Quelque chose pour pousser une charrette.

28. Faites ce que cette phrase en désordre vous dit de faire.
    Lettre écrite en A dans la parenthèse ( )

29. Lequel des mots suivants viendrait en premier lieu dans le dictionnaire ?
   1. Brave
   2. Baron
   3. Broder
   4. Bain
   5. Bruiller
   6. Broyer
   7. Brieen

30. Meilleur est à bon ce que pire est à....................
    1. Très bon
    2. Moyen
    3. Mauvais
    4. Bien pire
    5. Mieux

31. Lequel nous dit le mieux ce qu'est un agneau ?
    1. Quelque chose avec de la laine
    2. Un être vivant avec quatre pattes et une queue
    3. Un petit animal en joué
    4. Un jeune mouton
    5. Un jeune animal qui mange de l'herbe.
32. Si l'on disposait les mots suivants de façon à former une bonne phrase, par quelle lettre commencerait le troisième mot de la phrase ? (Écrivez-les en majuscule)

Le miel les abeilles trèfle recueillent rouge du

33. Il y a un proverbe qui dit : "Un point à temps en épargne cent". Ce qui veut dire :
1. Un peu de couture peut sauver cent piastres
2. Il vaut mieux remédier à une affaire avant qu'elle s'aggrave.
3. Travaillez et épargnez autant que vous le pourrez.
4. On peut sauver du temps par la couture.

34. L'herbe est au bétail ce que le pain est à

1. Le bœuf
2. La farine
3. L'homme
4. Les chevaux.

35. Qu'est-ce qui dit le mieux ce qu'est un mensonge ?
1. Une erreur
2. Une déclaration coupable et fausse
3. Une déclaration fortuite
4. Une exagération
5. Une mauvaise réponse.

36. Le fils de la sœur de mon père est mon

1. Frère
2. Neveu
3. Cousin
4. Oncle
5. Petit-fils.

37. Si Georges est plus grand que François, et François est plus grand que Jacques, alors George est

1. Plus grand
2. Plus petit
3. Aussi grand
4. Je ne sais pas.

38. Un roi est à un royaume ce qu'un président est à

1. Un vice-président
2. Un sénat
3. Une république
4. Une reine
5. Un libéral.

39. Comptez dans cette série chaque 5 qui est suivi immédiatement d'un 7.
Combien de 5 avez-vous compté ?

7 5 3 5 7 2 3 7 5 7 3 4 7 7 5 2 7 5 7 8 7 2 5 1 7 9 6 5 7

40. On dit qu'un événement qui va se produire sûrement est

1. Probable
2. Certain
3. Douteux
4. Possible
5. Retardé.
41. Laquelle des cinq choses suivantes ressemble le plus à ces trois-ci : président, animal, général ?
   1. Un navire  
   2. Une année  
   3. Roi  
   4. République  
   5. Soldat.

42. La grosseur est aux objets ce que le bruit est aux.................................
   1. Doux  
   2. Petite  
   3. Lourds  
   4. Poïde  
   5. Sons.

43. Si l'on disposait les mots suivants en ordre, par quelle lettre commencerait le mot du centre ?
   Huit, Dix, Six, Neuf, Sept.

44. On dit qu'une quantité qui devient plus petite...............................
   1. Disparaît  
   2. Raisse  
   3. Se dessèche  
   4. Diminue  
   5. Neurt.

45. Dans une langue étrangère garçon = Kolo
   bon garçon = Kolo Dank
   Par quelle lettre commence ce mot qui signifie "bon" ?

46. Un capitaine est à une bateau ce qu'un oiseau est à...........................
   1. Un état  
   2. Un conseil  
   3. Une ville  
   4. Un patron  
   5. Un avocat.

47. Un nombre est incorrect vers la fin de la série suivante. Corrigez-le et mettez le bon nombre dans la parenthèse.
   2 3 4 3 2 3 4 3 2 4

48. Si Henri est plus vieux que Jean et Jean est du même âge que Charles, charles est........................... qu'Henri.
   1. Plus vieux  
   2. Plus jeune  
   3. Du même âge  
   4. Je ne sais pas.

49. Faites ce que cette phrase en désordre vous dit de faire.
   Phrase la lettre écrivez première celle de..........................

50. Un revolver est à un homme ce qu...................... est à une aigüille.
   1. Ailles  
   2. Miel  
   3. Vol  
   4. Cin  
   5. Dard (qui ...)

51. Si Paul est plus vieux qu'Hubert et Paul est plus jeune que Robert, alors:
   Robert est........................... qu'Hubert
   1. Plus vieux  
   2. Plus jeune  
   3. Du même âge  
   4. Je ne sais pas.
52. Quelle est la raison la plus importante pour laquelle on met des lumières brillantes devant les théâtres ?
   1. Pour qu'on puisse voir où on est
   2. Pour attirer l'attention et les rendre attrayants
   3. Pour qu'on puisse mieux voir les passants
   4. On fournit l'électricité aux théâtres à bon marché
   5. Pour aider à éclairer la rue.

53. Si l'on disposait les mots suivants de façon à former une bonne phrase, par quelle lettre commencerait le troisième mot ? (Écrivez-la en majuscule.)
   garçons de bouche le leu un canot firent d'écorce.

54. Une personne qui désire beaucoup réussir mais qui craint d'échouer est une personne...
   1. Empressée
   2. Inquiète
   3. Industrieuse
   4. Énergique
   5. Pourruse.

55. Si l'on disposait les mots suivants en ordre, par quelle lettre commencerait le mot du centre ?
   Semaine Année Heure Seconde Jour Minuto.

56. Si un homme marche de chez lui 7 rues vers l'ouest et ensuite marche 4 rues vers l'ouest, à contien de rues est-il de chez lui ?
   1. 5 rues
   2. 2 rues
   3. 3 rues
   4. Réponse n'est pas donnée.

57. Dans une langue étrangère, très chaud = Soto gran
   très froid = Foco gran
   Par quelle lettre commence le mot qui signifie "très" ?

58. Laquelle des cinq choses suivantes ressemble le plus à ces trois-ci :
   un boulet de canon, un fil de fer, un son ?
   1. Une clef
   2. Un Zaire
   3. Un os
   4. Une corde
   5. Un crayon.

59. Il y a un proverbe qui dit : "Un homme qui se noie s'attache à un brin de paille". Ceci signifie :
   1. Un homme s'enfonce plus facilement qu'une paille
   2. Tout le monde devrait apprendre à nager
   3. Les personnes désespérées n'accrochent à des espérances abeurdos
   4. Les personnes qui ne savent pas nager devraient rester sur terre.
60. Faites ce que cette phrase en désordre vous dit de faire

Somme quatre écrivez trois la et de

61. On dit qu'une chose ou une institution qui ne doit pas périr ou ne doit pas finir est....................

1. Permanente  
2. Immobile  
3. Stationnaire.  
4. Solide  
5. Sûre.

62. Dans une langue étrangère,

Nourriture mère = Beko Prac
lait saïn = Klys Prac

nourriture et lait saïn = Beko Otoh Klys Prac

Par quelle lettre commence le mot qui signifie "et" ?

63. Quel mot dit le contraire d'orgueil ?

1. Chagrin  
2. Modeste  
3. Misère  
4. Faiblesse  
5. Soumission

64. Si les mots suivants étaient arrangés en ordre, par quelle lettre commence rait le mot du contra ?

Général, Lieutenant, Soldat, Colonel, Sergent.

65. Il y a un proverbe qui dit : "Il faut battre le fer pendant qu'il est et".  
Ceci signifie :

1. Le fer ne bat mal à froid  
2. La précipitation arrière le gaspillage  
3. Il faut tirer le meilleur parti des occasions favorables  
4. Le fer ne bat mieux près du feu  
5. On travaille toujours mieux à la chaleur qu'au froid.

66. Lequel rend le mieux ce qu'est un pied ?

1. Il porte un soulier et un bas  
2. La partie du corps sur laquelle l'animal se tient debout  
3. Il a cinq orteils  
4. Les deux pieds sont de la même grandeur  
5. Les hommes ont les pieds plus grands que ceux des femmes.

67. Un nombre est inexact vers la fin de la série suivante. Corrigez-le et mettez le bon nombre dans la parenthèse.

1 2 4 8 12 32 64

68. Écrivez la deuxième lettre qui suit la lettre qui vient après K dans l'alphabet.
69. Si on disposait les mots suivants en ordre par quelle lettre le mot du centre commencerait-il ?

Adolescence, vicieuxse, naturalité, enfoncé, naissante.

70. Il y a un proverbe qui dit : "Tout ce qui brille n'est pas or". Ceci signifie :

1. Il y a de l'or qui a un fini terme
2. Les diamants brillent plus que l'or
3. Ne portez pas de bijoux à bon marché
4. Il y a des personnes qui aiment à faire étalage de leur richesse
5. Les apparences sont souvent trompeuses.

71. Si j'ai une grosse boîte dans laquelle il y a 3 petites boîtes et 5 boîtes plus petites dans chaque petite boîte, combien y a-t-il de boîtes en tout ?

72. Si un garçon peut courir 250 m en 10 secondes, combien de mètres peut-il courir dans 1/5 de seconde ?

73. Lequel des mots suivants viendrait en dernier lieu dans le dictionnaire ?


74. Un nombre est inexact vers la fin de la série suivante. Corrigez-le et mettez le bon nombre dans la parenthèse.

1 2 5 6 9 10 13 14 16 18

75. Arrivez à une entente dans laquelle les deux côtés font certaines concessions s'appelle..............

1. Une offre 3. Un accord
APPENDIX B
APPENDIX B

Translation of Instrument B or General Knowledge test created by Norris with the tabulation of percentage of correct responses on each item by school. Item analysis procedure yielded a mean of 21.42 (/50) and a standard deviation of 5.25 for an n of 468.

<table>
<thead>
<tr>
<th>Item</th>
<th>Grade Level</th>
<th>Overall Average</th>
<th>Correct Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which of the following foods is richest in protein?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. rice</td>
<td>69%</td>
<td>46%</td>
<td>17%</td>
</tr>
<tr>
<td>B. cassava leaves</td>
<td>69%</td>
<td>46%</td>
<td>17%</td>
</tr>
<tr>
<td>C. fruits</td>
<td>69%</td>
<td>46%</td>
<td>17%</td>
</tr>
<tr>
<td>D. meat</td>
<td>69%</td>
<td>46%</td>
<td>17%</td>
</tr>
</tbody>
</table>

2. I bought a pen for 10K, some paper for 35K, and a book for 123K. I gave the clerk two bills of 1 Z (100K). How much change is due me?
A. A bill of 20K plus a 5K piece plus three pieces of 1K each
B. A bill of 20K plus a bill of 10K plus two pieces of 1K each
C. Three bills of 10K plus one 1K piece.
D. A bill of 50K plus a bill of 10K plus eight pieces of 1K each

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent</th>
<th>Correct Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. A bill of 20K plus a 5K piece plus three pieces of 1K each</td>
<td>78</td>
<td>56</td>
</tr>
<tr>
<td>B. A bill of 20K plus a bill of 10K plus two pieces of 1K each</td>
<td>78</td>
<td>56</td>
</tr>
<tr>
<td>C. Three bills of 10K plus one 1K piece.</td>
<td>78</td>
<td>56</td>
</tr>
<tr>
<td>D. A bill of 50K plus a bill of 10K plus eight pieces of 1K each</td>
<td>78</td>
<td>56</td>
</tr>
</tbody>
</table>

3. Which of these bodies is closest to the earth?
A. the stars
B. the moon
C. the sun
D. the planet Mars

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent</th>
<th>Correct Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. the stars</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>B. the moon</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>C. the sun</td>
<td>70</td>
<td>60</td>
</tr>
</tbody>
</table>
4. Between which of these cities will the difference in Greenwich meantime be the greatest?
   A. Kinshasa and Nairobi
   B. Brazzaville and Kisangani
   C. Kinshasa and Lubumbashi
   D. Kisangani and Lubumbashi

5. To mail a letter to a foreign country the airmail rate is 11.6K for the first 5 g. and 4K more for each additional 5 g. How much postage should be put on a letter which weighs 15 g.?
   A. 11.6K
   B. 15K
   C. 15.6K
   D. 19.6K

   In each of the following three sentences a word is underlined. Indicate the part of speech by one of the choices.

6. Personne n'oserait-il le contredire.
   A. Pronom interrogatif
   B. Nom commun
   C. Pronom indefini

7. Comme il était beau dans son uniforme neuf!
   A. Conjunction
   B. Preposition
   C. Adverbe

8. Mon appareil photographique, je l'ai payé cher.
   A. Adjectif qualificatif
   B. Adverbe
   C. Adjectif indefini
9. $\sqrt{16 + 9}$  
A. $4 + 3$  B. $5$  C. $4 \times 3$  
44 44 15 19 21 5 3 10 16 17 23  
B  

10. Two triangles are isosceles. The base angles of the first are equal to the opposing angle of the second. The following deduction can be made about the triangles:  
A. The triangles are similar if the base angle of the first measures 60.  
B. The triangles are similar in all cases.  
C. The triangles are never similar.  
48 25 40 25 48 33 36 31 38 37 36  
A  

11. \[ \sin \theta = \]  
A. $AC/BC$  
B. $AB/BC$  
C. $AC/AB$  
15 17 15 8 24 21 17 14 22 17 17  
A  

12. The map of the RDC shows that the Congo River flows by three former provincial capitals. Among these responses, indicate the one which designates the three capital cities.  
A. Kindu-Kongolo-Kabalo  
B. Bukavu-Kisangani-Kalemie  
C. Gemena-Matadi-Boma  
D. Kisangani-Bandaka-Kinshasa  
48 33 40 51 47 37 47 31 56 37 44  
D  

13. The movement of the earth on its axis is called  
A. rotation  
B. gravity  
C. evolution  
D. revolution  
87 88 92 75 88 91 86 86 87 89 87  
A  

14. What is the name of the cereal grain used as food by the majority of people of Asia?  
A. Sorghum  
B. rice  
C. wheat  
D. corn  
54 44 38 40 40 47 39 52 30 31 41  
B
15. Of these three products, which are found in the same zone of vegetation in the Congo:
copper, coffee, and palm oil
A. copper and palm oil
B. copper and coffee
C. coffee and palm oil

A. copper and palm oil
B. copper and coffee
C. coffee and palm oil

16. The rainbow is an example of
A. the decomposition of white light
B. a prism
C. a lens
D. the focus of a light ray

A. the decomposition of white light
B. a prism
C. a lens
D. the focus of a light ray

17. The phenomenon by which a wet shirt becomes dry is
A. evaporation
B. boiling
C. freezing
D. hydrogenation

A. evaporation
B. boiling
C. freezing
D. hydrogenation

18. A piece of metal which possesses the quality of attraction to iron is
A. a nail
B. a motor
C. a salt
D. a magnet

A. a nail
B. a motor
C. a salt
D. a magnet

19. The type of food which helps the body to have energy is
A. carbohydrates
B. protein
C. fats
D. vitamins

A. carbohydrates
B. protein
C. fats
D. vitamins
20. The rate of property tax is 2% annually on a house with a value of 4500 Z. What is the total of the tax?
   A. 9 Z   C. 90 Z
   B. 180 Z  D. 225 Z
   67 60 38 58 33 60 39 76 56 83 56  C

21. When a person reaches the stage of life where he is capable of reproduction, he enters
   A. infancy  C. school age
   B. adolescence D. old age
   56 60 35 34 53 51 67 45 40 40 48  B

22. What class of train fare costs the most?
   A. 1st  C. 3rd
   B. 2nd D. 4th
   94 88 32 91 50 88 64 86 65 54 72  A

23. The condition of elephantisis is associated with the bite of
   A. a fly  C. a mosquito
   B. an animal D. a bird
   20 13 20 17 41 19 44 17 16 20 22  A

In each of the following three sentences you will find a word with the ending underlined. If you think the ending is correct choose the response marked "correct"; if not, choose another response.

24. Ils ont cueilli des pommes et ils en on mangé.
   A. correct  B. -s  C. -es
   30 52 32 43 19 30 28 34 35 57 35  C
25. Le frère et la soeur se sont corrigé_ leurs versions.
   A. correct  B. -s  C. -es
   74  77  72  75  53  58  78  83  83  77  72  B

26. Dès qu'il e__ fini de manger il s'en alla.
   A. -u  B. -ût  C. -ut
   30  27  26  22  33  31  14  29  26  26  B

27. The monomial \(-x^2yz\)
   A. does not have a coefficient
   B. is positive
   C. has a coefficient of \(-1\)
   87  65  92  83  81  60  69  76  70  77  76  C

28. The reason for which Stanley is so well known in Congo history is
   A. that he was a great humanitarian
   B. that he was a Negro American poet
   C. that he was the first to explore the Congo River
   D. None of the above reasons is exactly correct
   67  65  60  66  69  65  44  59  60  77  62  C

29. The main characteristic of the equinox is the fact that
   A. the weather is cold at Bandaka.
   B. it leads to an eclipse of the moon.
   C. the nights and days are the same length.
   52  69  65  57  59  53  89  55  44  40  57  C
30. Indicate which of these mountains is the highest in Africa
   A. Kundulungu       C. Kilmanjaro
   B. Cameroun         D. Kenya
   
   93  98  88  83  84  95  83  97  89  89  89  C

31. The air of the atmosphere contains:
   A. nitrogen and hydrogen   C. oxygen, nitrogen, and sodium
   B. nitrogen and argon      D. nitrogen, oxygen, and other gases
   
   72  79  40  45  59  63  58  83  75  60  63  D

32. From their definitions, heat and temperature are the same thing.
   A. true                  B. false              C. uncertain
   
   56  44  52  36  52  26  58  55  37  66  46  B

33. A blacksmith uses tongs. These tongs are an example of a lever in which
   A. the resistance is between the force and the fulcrum
   B. the fulcrum is between the resistance and the force
   C. the force is between the resistance and the fulcrum
   
   26  29  27  34  28  33  33  21  19  17  27  C

34. The quotient of 7515 divided by 15 is
   A. 15                        C. 51
   B. 501                       D. 5001
   
   50  33  42  43  36  26  58  45  19  60  39  B

35. A particular phase of the moon recurs
   A. every two weeks            C. once per calendar month
   B. in 28 days                 D. once each year
   
   39  31  20  30  31  21  42  31  30  29  30  B
36. Which of the following plants is unisexual?
   A. banana           C. palm tree
   B. avocado          D. papaya tree

   28 6 17 8 21 16 14 45 11 14 17  D

   In each of the following three sentences a word is underlined. You should indicate its grammatical function.

37. Ecoutez bien, mes enfants, l’histoire que je vais vous conter.
   A. sujet           C. apposition
   B. complément d'objet direct  D. apostrophe  E. complément d'adverbe

   41 21 15 4 29 12 11 14 13 11 18  C

38. Il fut atteint de la peste et il en mourut.
   A. complément d'objet direct  C. complément d'attribution
   B. complément d'objet indirect D. complément circonstanciel

   31 27 40 26 36 21 58 28 40 34 34  D

39. Il n'avait annoncé son mariage qu'à ses meilleurs amis.
   A. complément d'adjectif  D. complément d'objet indirect
   B. complément de nom      E. complément d'agent
   C. complément d'attribution

   69 42 42 38 24 35 42 45 25 37 39  D

40. The equation $x^2 + 4 = 0$
   A. has no roots
   B. has one root
   C. has two roots

   33 15 15 9 16 28 17 14 16 14 18  A
41. If the sides of a triangle, a, b, c, are such that \(a^2 = b^2 + c^2\), one can confirm that it is a right triangle by applying
   A. the Pythagorean theorem
   B. the reciprocal of the Pythagorean theorem
   C. the Thales theorem

42. The capital of a country is the city with the largest population.
   A. true   B. false   C. doubtful

43. Lubumbashi and Matadi are situated at the same altitude.
   A. true   B. false   C. doubtful

44. Lemon juice is an example of a substance which contains
   A. a base   C. a metal
   B. an acid   D. a solid

45. A boat traveling up river is an example of two forces acting
   A. in the same direction   C. in perpendicular directions
   B. in opposite directions   D. none of these ways

46. The difference between latitude and longitude is the fact that
   A. longitude is measured in hectares but latitude is measured in degrees
   B. longitude is perpendicular to the equator while latitude is parallel
   C. there is no difference in the two terms
47. One sees lightning and afterwards one hears the thunder but science says that the two are produced at the same time. What is the reason for the observed phenomenon?
   A. There is no explanation
   B. The speed of sound is greater than the speed of light
   C. The speed of light is greater than the speed of sound
   D. They are not produced simultaneously.

48. In each of the following three sentences the verb is underlined. Indicate the tense and mood.

48. Même si vous avez échoué plusieurs fois, ne vous découragez pas.
   A. Indicatif présent
   B. Impératif présent
   C. Conditionnel présent

49. Des le premier jour de la guerre, son usine était détruite par une bombe.
   A. Indicatif imparfait passif
   B. Indicatif plusque parfait
   C. Indicatif passé antérieur

50. Ecoutez, on dirait que l'orage se rapproche.
   A. Indicatif imparfait
   B. Indicatif futur
   C. Conditionnel présent
BIBLIOGRAPHY
Books and Published Documents


Congo. Belgian. Laws, statues, etc. Codes et lois du Congo belge: testes annotes d'apres les rapports du Counsel Colonial les instructions officielles et la juris prudence des tribunaux. ("Codes and Laws of the Belgian Congo . . .") Bruxelles,


Coster, Sylvande. Ascension sociale et enseignement dans les états et dans territoires de l'Afrique moyen ("The social evolution and education in the states and territories of Middle Africa"). CEMUBAC Bruxelles 1963.


Hartzler, Eva C. Brief history of Methodist work in Southern Congo during the first 50 years. Elisabethville: Methodist Church in the Southern Congo (1960).


Hugon, Phillippe. Intégration de l'enseignement Africain au développement ("The integration of African education to development"), V. II, No. 4.


. Planification de l'éducation et de l'emploi dans le monde rural ("Educational Planning and its use in the rural setting"), Tiers Monde, pp. 7-15.


*Où en est l'enseignement au Congo?* ("Where is education in the Congo?") Leopoldville: Bureau de l'enseignement Catholique (1960).


Interviews


De Rivière, M. Conseiller chef de service, service administratif, Ministère de l'éducation nationale, Bruxelles, Belgique, September 30, 1970.


Ebaka, M. Directeur de service, Radiophonique TELSTAR, Kinshasa, October 1970.

Hussin, Genevieve, Directrice, Lycée IPOC, Kinshasa, January 1971.

Michel, Père, Vice President, Bureau de l'enseignement catholique, Kinshasa, RDC, October 1970.

Muyulu, Aaron, Directeur général, Bureau de l'enseignement protestante, October 1971.

Tshimanga, Robert, directeur, Centre de Recherche pédagogique, Institut National de Pédagogie, Kinshasa, RDC, October 1970.

Renoirte, Soeur, Chargée de l'enseignement secondaire, Bureau de l'enseignement, Catholique, Kinshasa RDC, October 1970.

Zushi, Godefroid, Directeur, Institut National de Pédagogie, IPN, October 1970.

Mukutwa, Frederick. Government Supervisor of Primary Schools, Province of Western Kasai.


Kucznska, Mme. Professor de pédagogie, Faculte de Pédagogie, Université de Louvanium, Kinshasa, RDC, October 1970.

Arranged by location: Paris, Brussels, Kinshasa, Luluabourg, Universities, and UMCC.


Mulangu, Sebastien. Primary Supervisor, Southern Congo Annual Conference, UMCC.

Okitokenge, Raphael. Primary Supervisor, Central Congo Annual Conference, UMCC.

Yumba, Jean. Primary Supervisor, North Katanga Annual Conference, UMCC.

Tshombe, David. Paramount Chief of the Lunda tribe, Musumba, Katanga Province.


Chargois, Jules. Director, Springer Institute, UMCC Mulungwishi, supplemented by staff conference, November 1970.


Kaponda, Manuel. Director, Booth Institute UMCC, Kamina, November 1970.


Muteteke, Paul. Director, Brinton Institute, UMCC, Sandoa, supplemented by staff conference, November 1970.

