

A Review of the Geography One Aspect of the 2010 Geography Syllabus for Senior High Schools in Ghana

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Abstract

This is a non-empirical article whose main focus is a review of the 2010 Geography One Teaching syllabus currently being used in Senior High Schools in Ghana. Though the 2010 SHS Geography syllabus has been structured and organized into three sections, the review has however been done on the Physical and Practical Geography aspects which constitute the Geography One domain of the syllabus. Certain principles for evaluating instructional programmes (curricula) have been used to assess the relevance of the syllabus to the Geography student in particular and the Ghanaian context in general. The review focused on a discussion of the relative strengths and weaknesses in the organization and integration of content and learning experiences towards the attainment of instructional objectives. The review holds the view that the new syllabus is a comprehensive document which has used the holistic approach to address issues of interconnections, distribution linkages and patterns of geographic phenomena and processes and above all, has been able to blend all the components of content to a very high degree. In conclusion, the article suggests that the designers of the syllabus should take steps to rectify the shortcomings identified and then pass on the feedback to the classroom geography teacher for implementation. But before this is done, the article recommends the use of the new Geography One Syllabus in all Senior High Schools where geography is taught.

Key Concepts: Teaching syllabus, curriculum principle, geography, evaluation, strengths, weaknesses

1. Introduction

The syllabus under review (CRDD, 2010) like its predecessor, that is, the 2008 Senior High School Geography syllabus has been structured and organized into three main sections. These are Section 1 (Physical Geography), Section II (Human and Regional Geography) and Section III (Practical Geography). The review, however excluded Section II (Human and Regional Geography) because it would have made the article too bulky and therefore cumbersome to read.

The content and learning experiences in this syllabus have been organized and integrated with the aid of certain curriculum organizers: *organizing centres* (e.g. sections, units, subunits and topics), *organizing elements* (e.g. facts, concepts, skills, attitudes and values) and *organizing principles* (e.g. description before analysis, increasing breadth of application, logical teaching, etc.).

2. Structure of Article

The main section of this article is the *Evaluation Section* which is structured into two sub-sections. The first sub-section covers *Physical Geography* and the second sub-section is *Practical Geography*. The review is done around a description of key points or issues in each sub-section, evaluation of these issues (i.e. highlighting the strengths and weaknesses of the syllabus), the conclusion and lastly, a list of references cited to warrant claims made in the review.

3. The Evaluation

This is the main section of the review. Certain key points in the syllabus would be selected and critiqued using the following principles/criteria as espoused by Gopsill (1973) for the evaluation of a geography syllabus:

- *Nature of Aims/General Objectives of the Syllabus*
- *Systematic Progression/Sequential Arrangement of the syllabus*
- *Comprehensiveness of the syllabus*
- *Relationship between the various aspects of Geography*
- *Relationship between Geography and other subjects*
- *Relationship between the Homeland and the World (i.e. balance of scale and diversity)*
- *Opportunity for Practical Work.*

All or some of the above-mentioned principles/criteria would be used to critique **each** of the two sub sections in the syllabus as indicated in the preceding section.

4.0 Sub-section I: Physical Geography

The **first principle** used to assess this sub-section is the nature of *aims/general objectives* principle. This principle informs the reader about what the syllabus hopes the student will be able to achieve by the end of the instructional programme.

These aims and general objectives include the following:

- *acquisition of* (a) basic knowledge about the physical environment, (b) basic knowledge of the nature and functions of the physical environment, (c) knowledge of differential character of the earth surface.
- *awareness of* (a) the functions of the physical environment, (b) the interrelationship between the physical and human environment, (c) environmental concerns and their impact.

4.1 Strengths:

The strength of these general objectives lies in the *continuous and sequential* organization and integration of content and learning experiences. For example, students' acquisition of knowledge on the physical environment transcends Forms 1, 2 and 3. That is to say, this learning outcome has been repeated in all the 3 forms with increasing breadth and depth from Forms 1 to 3. Again, it has also achieved *integration* of content and learning experiences as an attempt has been made under every unit to integrate components of content (e.g. facts, concepts, skills, values, etc) with the learning experiences. For example, much as students are to acquire knowledge on the physical environment, they are at the same time expected to show concern for it, interact with it or explore it in order to develop their affective skills through teaching-learning activities such as *drawing, labeling, modeling, data gathering, writing, describing, explaining, analyzing, etc.* There is also integration of in-school and out-of-school activities such as field visits based on lead lessons in the classroom. In sum, students are not only to acquire cognitive skills, but also affective and psychomotor skills which according to Haubrich (1994) constitute the holistic process of education.

4.2 Weaknesses

The general objectives under the various sections in Forms 1, 2 and 3 do not give enough indication of the attainment of affective and psychomotor objectives. Almost all the words used to formulate the objectives indicate only the attainment of cognitive learning outcomes. In situations where an affective learning outcome has been indicated the expression appears to be monotonous. For example, the use of an expression like 'to be aware' could have been used alongside other affective expressions such as *develop interest in, show appreciation for..., show concern for, develop understanding for..., show readiness to use knowledge and skills to*, etc. As regards the psychomotor objectives, the designers could have varied the expression used. They could have used other action verbs such as *practise, use, develop skills in, to prepare and to observe and identify*; etc. along side the only expression used, that is, *acquire*.

The **second principle** used to assess the Section 1 is the *comprehensive* principle. This principle denotes the idea that the learning outcome to be attained by the student should cover all the three main taxonomies of educational objectives (i.e. cognitive, affective and psychomotor), though with varying emphasis.

4.3 Strengths

Students are to:

- attain cognitive learning outcomes such as *classify, describe, identify, explain, locate, brainstorm, etc*
- attain affective and psychomotor learning outcomes such as undertaking field trips to familiarize themselves with the physical environment in both rural and urban areas, by *observing, collecting specimen, writing reports, drawing sketch maps, discussing issues, modeling, browsing the internet, labeling, observing demonstrations, etc.*

In sum, the content and learning experiences selected cover units which give students the opportunity to critically assess issues, help them to develop a sense of appreciation, particularly for the physical environment and expose them to activities which will make them use their hands or body.

4.4 Weaknesses

In spite of the many psychomotor learning outcomes to be attained, the teaching-learning activity on students' visit to a weather station just to go and identify the weather instruments and observe how they are used leaves much to be desired. One of the curriculum principles under girding the new Educational Reforms is to provide education which is relevant to life. With reference to this principle, the designers could have included a learning outcome like *students being trained to use or manipulate these instruments*. It is not enough for students just to sit or stand back and observe how the instruments are manipulated, but rather get actively involved as underlined by (i) the famous Chinese saying, 'To hear I forget, to see I remember, but to do, I understand', (ii) Afful (1988) who opines that in the teaching-learning process, students should be given the opportunity to speak, listen, look, draw, use, measure, record, discuss and write. Such active involvement of students, according to Tamakloe (1992) makes them to be self-dependent learners.

The **third principle** used to evaluate the Section 1 is the *relationship between the various aspects of geography*. This principle espouses the idea that knowledge should not be seen as discrete or fragmented which creates the idea of specialization in the mind of the learner. The principle emphasizes that the separate parts of geography should not normally appear in the syllabus; they take their place inconspicuously. But in instances where they appear, students should be made to appreciate the way in which the different aspects of geography hang together.

4.5 Strengths

- The unit on rocks and minerals is linked to aspects of human geography by way of the importance of rocks to man – students are to undertake field trips to quarries, mines, road cuttings, excavations, etc. to observe and collect specimen rocks.
- Another physical geography – human geography relationship has been underlined by (a) the teaching-learning activity on students' visit to industries and construction sites to observe how minerals and rocks are used; (b) the teaching-learning activity where students are to undertake a field trip to explore the immediate locality and observe types of water bodies; (c) the teaching-learning activity where students are to discuss how ocean currents affect human activities; (d) brainstorm the importance of various water bodies to life and give examples; (e) a class test in which students are to explain how either lakes or rivers are important to life and the limitations encountered in their use.
- An element of regional geography is seen in the physical geography aspect of the syllabus where (a) in a class exercise students are to draw a sketch map of Ghana and locate important areas where the major minerals in Ghana are mined; they are to explain the importance of minerals to Ghana. This learning outcome in fact stresses the *relevance/functionality principle in education* which states that any content or learning experience selected must be useful to the social life of the learner. In the words of Wheeler (1983) the learning experiences included in a curriculum can only be justified in terms of their immediate and mediate (future) significance; (b) in a class project, students are to explore their environment and identify human activities that negatively impact on the environment; (c) in a class assignment, students are to explain why the air in the regional capitals of the earth may not be as healthy as the air in the rural settlements; (d) in a teaching-learning activity, students are to draw a sketch map of Ghana and locate one river, natural lake, artificial lake and lagoon; (e) in a teaching-learning activity, students are to undertake a field trip to observe folding along road cuttings, surface mines and faults such as the Kwahu Scarp. This really makes geography relevant to students.
- An element of practical geography, map work for that matter is evident in a teaching-learning activity where students are to draw contour lines to distinguish between radial and centripetal drainage patterns.

4.6 Weaknesses

Whereas evidence of the physical geography-human and regional geography relationship is so overwhelming, the same cannot be said about physical geography's inclusion of elements of practical geography in the Section I of the syllabus. The only reference to practical geography is the class exercise on the drawing of contour lines to depict two types of drainage patterns.

The **fourth principle** used to evaluate Section I of the syllabus is the *relationship between geography and other subjects*. This principle states that since education is seen to be holistic, attempts should be made by curriculum designers to impute elements of other subjects, especially other social science disciplines in the geography curriculum. That it would be prudent for key geographical concepts or topics to be introduced to students after they have had sufficient supporting knowledge from other subjects.

4.7 Strengths

- In a teaching-learning activity, students are to (a) do a historical search from various sources, including the internet on earthquakes in Ghana; (b) find out from different sources, including the internet and CD-ROMS the appearance of folds; (c) find out in a group work, from various sources, including the internet, how various water bodies are formed; (d) use the internet to view pictures of space explorations; (e) visit ENCARTA to observe the structure of the earth; (f) use various sources, including digital content to examine and describe the characteristics of rocks; (g) use digital content to observe drainage patterns and to examine and describe the characteristics of rocks; (h) observe from various sources, including digital content, pictures of various underground features in limestone regions; (i) observe pictures of the various coastal landforms from different sources including the internet and CD-ROM and distinguish between the features; (j) use various means including digital content to identify various climatic zones; (k) use real maps or digital content to identify various types of soils on a world map. All the above show how relevant Information Communication Technology (ICT) as a discipline is to geography.

4.8 Weaknesses

Apart from references being made to ICT sources to enhance teaching and learning of geography, no other reference was made to other disciplines. The assertion that geography is a bridge between the social sciences

and the physical sciences has not been given much boost by the syllabus for the following reasons:

- In examining and describing the characteristics of rocks, apart from references being made to digital content, the internet and CD-ROMS, reference could have been made to other fields of specialization such as geology. This omission is also evident in the unit on *landforms of the Earth's Crust and the historical search on earthquakes in Ghana*. Students could have been directed to pay a visit to the Geological Services Department. The question is what becomes of students who may not have access to internet facilities? The syllabus in addition to the internet sources ought to have been more definitive on the other sources of information that students could access.
- The unit on the Earth's Atmosphere could have been enriched if as part of a project work or field trip, students were to visit a meteorological station or the school inviting a meteorologist to give a talk on the dynamics of the atmosphere in view of the technical terms associated with the topic.
- On the warming of the atmosphere through processes such as radiation, convection, conduction and evapo-transpiration, reference could have been made to students' knowledge in Integrated Science, particularly Physics or better still the syllabus could have directed students to consult the Physics section of the Integrated Science textbook. The connection between this unit and science ought to have been spelt out as indicated on page 3 of the old syllabus (CRDD, 1990). The desire for new things does not mean that curriculum innovators should throw away the baby with the bath water!

The **fifth principle** used is the *relationship between the homeland and the world* principle. -This principle espouses the idea of logical teaching which states that in the organization of content and learning experiences, the neighbourhood of the school should first be considered, then its locality, district, home country, home continent and the rest of the world in that order.

4.9 Strengths

Students are to:

- visit quarries, mines, road cuttings, excavations, river and stream beds, shorelines, etc. to observe, collect specimen rocks
- visit industries and construction sites to observe how rocks and minerals are used
- draw a map of Ghana showing (a) the location of major mineral sources; (b) the location of one natural and one artificial lake, one river and a lagoon
- use the atlas to locate various ocean currents
- visit a coastal area to observe the various coastal features
- draw a sketch map of Africa locating vegetation zones and describe characteristics of one
- explore the local community and categorize types of waste materials
- observe pictures of various underground features in limestone regions

From the above one could infer that references were made to different areas ranging from the local community to Africa, the home continent of the student.

4.10 Weaknesses

Mention ought to have been made of specific areas in Ghana and elsewhere where the physical features cited in the syllabus could be located. For example, in discussing the soil types in Ghana, no specific example was given on where particular groups of soil could be located in Ghana, e.g. where can we find the Akuse black soil?

- The **last principle** used to evaluate the Section I is the *opportunity for practical work* principle. This principle states that every well designed geography syllabus should incorporate various types of practical activities to reinforce the content area of the syllabus. These activities include field trips/work, projects, assignments, topical events, observations, drawing, modeling, measuring, counting etc.

4.11 Strengths

Students are to:

- *demonstrate* the difference between *revolution* and *rotation* of the earth using the globe and a torch light
- *draw* (a) and *label* the earth's structure, (b) and *label* the soil profile on either the school compound or the neighbourhood, (c) a sketch map of Ghana showing the soil types, (d) a sketch map of Ghana showing water bodies
- *undertake field trip/work* (a) as a class project by exploring the environment and identifying human activities that negatively impact on the environment, (b) to explore their immediate locality, observing types of water bodies, (c) to observe folding along road cuttings, surface mines and faults such as the Kwahu Scarp, (d) to explore and observe how roots of plants penetrate rock crevasses on their school environment, (e) to observe processes of mass wasting and associated landforms, (f) to a weather station to identify and observe various instruments and how they are used, (g) to explore, observe and record different types of vegetation in the school or community environment, (h) a guided tour to observe the

soil types on the school compound; dig a pit on the school compound, observe the soil profile and collect samples from the various horizons for discussion and then classify soil types collected from the field according to their properties, (i) to explore the local community and categorize types of waste materials such as biodegradable and non-biodegradable, toxic materials.

- model the topography of the ocean floor using clay or ‘papier marche’
- undertake an educational tour to (a) industries and construction sites to observe how minerals and rocks are used, (b) quarries, mines, excavations, road cuttings, river and stream beds, shorelines etc. to observe and collect specimen rocks.
- plant trees on the school compound or in the neighbourhood and nurture them

All the above show that the principle has exhaustively been applied in the organization of content and learning experiences.

4.12 Weaknesses

The only practical activity which is conspicuously missing from the Section I of the syllabus is *measuring*. This is where students could have been given the opportunity to use weather station instruments such as anemometer, wind vane, wet and dry bulb hygrometer, maximum/minimum thermometer, sunshine recorder, barometer, rain gauge etc. to measure weather elements such as wind speed, wind direction, relative humidity, air temperature, the intensity of the sun, atmospheric pressure, rainfall, respectively. It is not enough for students just to know how the instruments work, but rather they should be given a *hands-on* experience!

Another limitation is that the wording in the Teaching-Learning Activity in 1st Year Unit 3 is inappropriate. Are students to discuss the various zones or layers of the atmosphere or its components? The ‘components’ refer to the constituent gases and particles which make up the atmosphere which in an ascending order from the earth’s surface possess distinctive character from one another (Doerr, 1990).

But despite this shortcoming, the reviewers must admit that the designers of the Section I aspect of the syllabus did a good job by incorporating a variety of practical activities which tasked students to use all their five senses – touch, sight, hear, smell and taste. This underlines the curriculum principle of the *promotion of analytical, creative, critical and problem-solving skills* which states that “an educational system should help individuals develop inquiring mind, ability to innovate and adapt, and the capacity to apply knowledge and skills acquired to solve problems” (Meeting the Challenges of Education in the 21st Century, 2002:13).

5. Section III: Practical Geography

The **first principle** used to assess this section is the *nature of aims/general objectives principle*. The general objectives used to design this section are that the student will:

- *acquire the skills* of investigating geographic information (psychomotor)
- *acquire the skills* of (i) geographic investigation, (ii) interpreting and analyzing geographic information and (iii) map interpretation and analysis (psychomotor)
- *acquire knowledge and skills* for interpreting geographic data (cognitive)

5.1 Strengths

- The major strength is that much emphasis has been placed on practical activities as shown by learning outcomes such as the development of skills of *graphicacy* (i.e. use of maps, map reading and map interpretation). The emphasis on psychomotor learning outcomes is indicated by specific objectives which direct the student to (a) *represent* statistical data graphically, (b) *use* practical skills to demonstrate map reading and (c) *describe* functions of symbols in interpreting maps.
- This section also emphasizes cognitive learning outcomes as expressed by the following specific objectives couched from the general objectives: (a) *interpret* conventional symbols, (b) *differentiate* between statistical types of maps and statistical diagrams (c) *identify* i. different types of maps and their uses and ii. marginal information and conventional symbols and (d) *describe* the functions of symbols in interpreting maps.

5.2 Weaknesses

- One major defect identified is that there is no affective learning outcome in the general objectives. As a result of this anomaly, there is no affective learning outcome among the specific objectives which are more or less a break down of the general objectives. Ironically, the 1990 syllabus had an affective general objective such as ‘to develop respect for accurate, orderly and objective methods of investigation’ (CRDD, 1990: vi). Another affective objective which could have been included is ‘students showing readiness to use knowledge and skills in map work adequately and responsibly in their private, professional and public lives’.

The **second principle** used to assess this section is the *comprehensive principle*. The learning outcomes as suggested by the content and learning experiences should cover the three main taxonomies of educational objectives.

5.3 Strengths

- For the 1st year, students are to attain cognitive learning outcomes such as *brainstorm the definition and importance of maps, state and explain different types of scale conversion and to write a class exercise on the uses of maps* under the unit 1. Under unit 2, students are to (a) *give* a description of basic survey instruments and their uses, (b) *brainstorm* the meaning of surveying and (c) *identify* survey instruments.
- Other learning outcomes for the 1st year are of affective nature. For example, students are to (a) *engage in group work* and present their findings for class discussion, (b) *form* small groups to measure the dimensions of their classroom or suitable area on the school compound, etc.
- The psychomotor learning outcomes for the 1st year include (a) *use* different types of maps to observe and identify the features of each map, (b) *use* digital content or real maps to identify and explain marginal information and conventional symbols on various types of maps, (c) *demonstrate* how to develop scales and convert one type of scale to another, (d) *use* field data to plot a traverse, (e) *draw* survey instruments, (d) *use* the error-correcting graph to adjust an open traverse, etc.
- Second year cognitive learning outcomes include (a) *discuss* the differences between statistical maps and diagrams, (b) *observe* a demonstration of graphic representation of statistical data, (c) *brainstorm* the processes of map reduction and enlargement, (d) *describe* steps in reducing and enlarging maps, etc.
- Second year affective learning outcomes include *forming* small groups and using topographical sheets to go through the principles of map reduction and enlargement.
- Second year psychomotor learning outcomes include (a) *use* **i.** symbols to represent various phenomena, **ii.** average monthly rainfall and temperature figures to plot line graphs **iii.** secondary data to plot the diagrams **iv.** statistical data from a secondary source to draw a statistical diagram **v.** practical skills to demonstrate map reading; (b) *draw* **i.** bar graphs to represent rainfall and temperature figures to plot line graphs **ii.** annotated cross section between two points across a river basin
- Second year cognitive skill development includes (a) *interpret* conventional symbols used on maps, (b) *describe* **i.** drainage patterns on topographical maps **ii.** functions of symbols interpreting maps, **iii.** patterns of settlement on a topographical map, (c) *identify* symbols provided on topographical maps.
- Third year motor skills include students *using* topographical maps to identify symbols and interpret their meaning.

5.4 Weaknesses

- One anomaly identified is the low key attention given to the affective domain of personality development. The reason may be that this aspect of personality development was not included in the general objectives for this Section.
- Again, under 1st year unit 2, students are only to identify, describe and draw the various survey instruments, which to the reviewers defeats a very important curriculum principle which sees education as an opportunity to ‘*train people for self-employment*’ (*Meeting the Challenges of Education in the 21st Century, 2002:13*). That is, learners are to acquire knowledge and skills that will equip them for self-employment. Instead of watching a demonstration on the use of the survey instruments by a resource person, they should in addition be given the opportunity to manipulate these instruments. According to Dale’s (1954) Cone of Experience Model, students tend to remember only 50% of a lesson when a demonstration is used as a method of teaching, but retain as much as 90 % when they are directly involved in the lesson.

The **third principle** used to assess this section is the *systematic progression or sequential principle*. This states that both content and learning experiences should be organized in such a way that units and topics which are easier to comprehend should be treated earlier than the not-too easy- to-understand units and topics.

5.5 Strengths

This principle was effectively used in the organization and integration of content and learning experiences.

- The broadness and depth of both content and learning experiences increased from the 1st year to the 3rd year. For example, in the 1st year, students are to attain learning outcomes in **elements of map reading and principles of surveying**; in the 2nd year, students are to use knowledge and skills acquired in the previous year to **demonstrate how to read maps** and in addition study **statistical mapping**. In the 3rd year, students are not only to develop the skill of reading maps but go further to **interpret and use topographical maps** based on knowledge and skills acquired in the preceding forms (i.e. forms 1 and 2).

- Again, the learning outcomes in this section emphasize the *principle of multiple-outcomes* which states that the same learning experience will usually bring about several learning outcomes (Tyler, 1949). That every experience is likely to bring about more than one learning outcome. For example, on the use of scales in 1st year unit 1, students are to work in small groups (*affective*) to measure dimensions of the classroom or suitable area (*psychomotor*) and convert the measurements to the three types of scale (*cognitive*).

5.6 Weaknesses

- Intellectually-challenging learning outcomes which formed part of the final year interpretation and analysis of maps' section in the old syllabus have been deleted from the new syllabus. For example, topic such as *directions and bearings* is no longer part of the 3rd or final year programme.
- Again, though the general objectives for the 3rd year unit on map interpretation and map use include students acquiring skills for analyzing and interpreting geographic data, this general objective was not captured by the specific objectives under the unit. The only two specific objectives direct students to (a) interpret conventional symbols used on maps and (b) describe the functions of symbols in interpreting maps. There ought to have been a third specific objective such as *to analyse the relationships among and between physical and cultural features on maps*. The reason for this suggestion is that under the evaluation segment in the unit 1, students in a class exercise are to describe the pattern of settlements on a topographical map and explain how they are related to physical features. The question is 'what is the basis of the class exercise when in the specific objectives, there is no evidence of an analysis of the relationship between settlement and physical features?'

The **fourth principle** used is the *relationship among various aspects of the geography* principle.

5.7 Strengths

- The Section 3 of the syllabus gives an indication of elements of physical and human geography by way of the different types of maps dealt with in 1st year unit 1 – political and population maps are themes in human geography; topographical, relief, geological, climatic and vegetation maps are all themes in physical geography.
- Also the conventional symbols shown on the topographical maps depict mostly natural and cultural features (human geography). These include vegetation, water bodies/ drainage patterns (physical features); houses, communication lines, farms, post offices (human geography).
- In 2nd year unit 1, the statistical maps and diagrams depict (a) demographic and economic data which deal with issues in human geography – production, exports and imports, population composition and distribution, population density, etc. and (b) climatic data which deal with issues in physical geography – rainfall, temperature, wind direction.

5.8 Weaknesses

- Under 1st year unit 2 (i.e. Elementary Surveying), no reference was made to the other aspects of geography. Does this mean both physical and human geography have nothing good to contribute to the development of practical geography? This review does not think so.

The **fifth principle** used to assess the Section 3 is the *relationship between geography and other subjects'* principle.

5.9 Strengths

- In 1st year unit 1, an indication of the inclusion of other subject areas has been given by the various types of maps referred to in the unit. For example, political maps have something to do with political science or government; economic maps have something to do with economics; geological maps have something to do with geology as a discipline.
- Again, the 1st year learning outcomes include a resource person being invited to demonstrate the use of survey instruments. The resource person might be a graduate of Regional Planning, Land Economics or Estate Management.

5.10 Weaknesses

- In the 3rd year map interpretation and map use unit, no linkage was established with other subject areas. For students to realize the functional importance of map interpretation and map use, there could have been a teaching-learning activity by way of students embarking on a working visit to a place like the Geological Service Department to see at first hand how cartographers work. This is in a way would motivate them to take this aspect of geography more serious.

The **sixth and last principle** used to assess the Section 3 is the *opportunity for practical work* principle.

5.11 Strengths

Students are to:

- use (a) digital content/real maps to identify and explain marginal information and conventional symbols on various types of maps(group work), (b) symbols to represent various phenomena (e.g. proportional

circles or dots), for example to represent population of an area (c) average monthly rainfall and temperature figures to plot line graphs and draw bar graphs to represent the rainfall and temperature figures, (d) topographical maps to identify symbols and interpret their meaning, (e) statistical data from a secondary source to draw statistical diagrams (individual class exercise).

- form small groups and use topographical sheets to go through the principles of map reduction and enlargement
- observe and identify the features of different types of map to bring out the similarities and differences
- draw annotated cross-section between two points across a river basin
- write a report on an investigation, surveys and interviews conducted

One innovation which is now part of the 2010 syllabus is the inclusion of a unit on “principles of geographic investigation” in the 2nd year. This unit which was part of the 1990 syllabus was inexplicably expunged from the 2008 syllabus. It is a unit which exposes students to research skills in the collection of primary and secondary data.

5.12 Weaknesses

- The reviewers wonder why an important motor skill like *modeling* has been taken out of this new syllabus. In the 1990 syllabus, students were asked to make models of physical and cultural features using clay or papier mache (CRDD, 1990: 10).
- Why are students not exposed to the use of survey instruments but rather they are to watch passively as a resource person (a surveyor) demonstrates the use of those instruments? This was not the case in the 1990 syllabus where students were to be helped by a resource person in the use of survey instruments in the field. A related activity was that students were to survey their school, football field, etc. presumably by using the skills gained in the use of the instruments (CRDD, 1990:28).

6. Conclusion

To conclude, the reviewers would describe this new syllabus as an ‘abridged’ version of the old 1990 syllabus, but similar in structure and content to the 2008 syllabus. This may be the result of an apparent reaction to the numerous ‘hue and cry’ raised by geography teachers and students about the “loaded” or broad nature of previous geography syllabi. In spite of the shortcomings identified in the new syllabus, the reviewers would like to state that it is a well-written document which has incorporated all the global aims of geographical education such as the development of oratory, literacy, numeracy, graphicacy and social skills in students. The reviewers would, however, appeal to the designers of the syllabus to take a second look at some of the units and topics that used to be part of the 1990 syllabus but have now been deleted from the new one.

The implementers of the syllabus, that is, teachers should not turn it into a kind of straight-jacket in which the syllabus dictates what is to be taught and the teacher feels compelled not to teach any interesting and educative issue not included in it. Nonetheless, a teacher without the guidance of a syllabus is like the captain of a watercraft without a radar. It therefore behooves educational planners to pre-plan the material that students are to study in school so as to guarantee the attainment of institutional goals which will invariably lead to the attainment of the broader educational goals of the society.

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