Assessment of the Caribbean Examinaton Council
(C.X.C.)

Food and Nutrition Syllabus

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To my husband, Eugene
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CHAPTER 1
INTRODUCTION

The issue of food and nutrition has become complex in the Caribbean. There is rapid advance in technology, and as a result, foods are available in various forms to consumers. Yet the people of the Caribbean find themselves grappling with disorders of an affluent society, even before they have emerged from an era of under-nutrition primarily associated with under-developed countries.

There is evidence that over the past three decades, the incidence of under-nutrition in the Organization of Eastern Caribbean States has been reduced, despite severe economic problems confronting respective governments and their populations. General improvement in the educational and socio-economic levels of citizens, together with increases in the availability of health care in the region have resulted in improved nutritional status of infants and children. Infant mortality rates for 1961-1962 indicated that about 60 infants out of every 1000 live births died before their first birthday. By 1982-1983, 27/1000 died before their first birthday. These figures do not include those from Haiti. (Pan American Health Organization PAHO/World Health Organization WHO 1986).
While gross under-nutrition has diminished as a public health concern, the incidence of widespread obesity has increased along with the prevalence of chronic non-communicable diseases e.g. diabetes, cancer, heart diseases, and hypertension. These are responsible for a large number of deaths in the Caribbean at an early age. Studies have shown that 30 out of every 100 adults over forty years of age have hypertension, and this accounts for 18-22% of the adult population. (P.A.H.O./W.H.O. 1986). These and many other food and nutrition-related concerns trigger a need for assessing the food and nutrition syllabus and knowledge being taught to youth and adults.

Home economists attend to societal concerns through teaching food and nutrition to secondary students. Teachers are guided on this instruction by the Caribbean Examinations Council (CXC) food and nutrition syllabus. The syllabus has objectives whose importance needs reassessing. The teachers preparedness in implementing the syllabus need to be addressed, since the CXC relies solely on them for success of the program. Schwab (1983) noted that the implementation of the curriculum depends to a large extent on the readiness of teachers to undertake the task, or their readiness to develop the understanding, skills and commitment necessary to do so. Since the teachers are seen as conveyors of curriculum, which is planned by authority, and are expected to implement it, the implementation problems, therefore become important topics to
study (Klein, 1981). Teachers then are valuable personnel in any curriculum evaluation. Evidently teachers have been ignored in the evaluation of the implementation of food and nutrition knowledge. Evaluators fail to raise questions about how teachers tackle their classroom experiences and the curriculum they implement. Yet, evaluation is tied inextricably to program planning and implementation (Van Maanen, 1979).

Background

The desirability of some form of political and economic grouping among the islands of the English speaking Caribbean, is an idea which has historical roots in the Caribbean region, particularly within the smaller islands of the Eastern Caribbean. The historical precedents to regional integration stretch back at least into the colonial era. It started off with a Federation 1871-1956, which failed because of lack of attempts by the colonial governments to try to integrate the economic and trading relations between the islands. The range of inter-island cooperation was not extended beyond the political/administrative levels or to the economic and social spheres (O.E.C.S. In Perspective 1987).

Under the colonial regime several organizations were formed ranging from Caribbean Free Trade Association (CARIFTA) to Caribbean Community and Common Market (CARICOM). CARIFTA led to substantial progress in the liberalization of intra-regional trade. In 1972, CARIFTA evolved into a common market
(CARICOM) which provided cooperation at three levels. The first was economic integration through establishment of a common market with efforts aimed at intra-regional trade. The second was functional cooperation in some areas as technical assistance, health, education, training, and sports, as well as various ministerial committees. Some success was achieved at this level in functional cooperation, particularly in the areas of health, education and training. Thirdly, regional bodies for coordinating and implementing regional educational, health and sports programs and activities were established. Among these was the Caribbean Examinations Council, hereinafter referred to as CXC. This body was to be responsible for curriculum and examinations in secondary schools of the Caribbean.

Concurrent with the moves to foster cooperation at the CARICOM levels, the smaller islands have taken initiatives towards deepening and strengthening their economic and education integration and cooperation. This was pursued, and in June 1981 the islands of Antigua & Barbuda, Dominica, Grenada, St. Vincent and the Grenadines, Montserrat, St. Kitts and Nevis and St. Lucia were established as the Organization of Eastern Caribbean States (OECS). In November 1984 the British Virgin Islands joined the Organization as an Associate Member (OECS In Perspective, 1987).

Education in the OECS countries was the responsibility of the British from the eighteenth century. The responsibility
for education still remained with Britain despite the granting of independence in the early sixties. At that time the majority of primary schools enrolled pupils for all grade levels from five to eleven or twelve, depending upon the progress of the youngster in school or his/her age at the time of enrollment. In some cases, however, the period of primary education is divided into two schools: the infant school which ordinarily accepts children of ages five through seven, and the junior school which encompasses ages seven to eleven.

Secondary schools are either a grammar-type school or a comprehensive secondary school. The major emphasis of the grammar school is preparation for the university, while the comprehensive secondary schools offer vocational programs for all students. Pupils attend secondary school beginning at age eleven plus.

The process for evaluation of students was patterned after the British system. External examinations from England were used to evaluate students who leave secondary schools. The syllabus was issued by British Board Universities, and all Caribbean examinations were controlled by the British.

Many Caribbean officials felt that independance could not be complete with the curricula still fashioned by British standards, unrelated to the needs of the societies. Dr. Willim Demas, first Director of CARICOM, described the system as intolerable in the face of the Caribbean cultural and intellectual development (Demas, 1973). There was great
concern over the effect upon education of a system of secondary school education that was run by overseas examination bodies and based on syllabuses developed overseas and designed for use in the Caribbean. These syllabuses were geared to meet the entrance requirements of English universities. Programs were purely academic and the less academically inclined pupils were not considered.

The first formal, though tentative step in the direction of the establishment of the Caribbean Examinations Council (C.X.C.) was taken in July 1961 when the seventh meeting of the Caribbean Advisory Committee held in Jamaica resolved that a West Indies Examinations Council be established. Talks continued throughout 1964 to 1966. From these talks emerged the outlines of a strategy for implementing the projects.

The first draft for the agreement took place in Barbados in July 1967. It was revised and amended between 1967 to 1971. It was important to ensure that the agreement reflected in every way the thinking, philosophy and intentions of the prospective governments. This prompted the birth of CXC in 1973. The first meeting to draft a syllabus for Home Economics was held in August 1973. After several meetings and panel discussions the program became examinable in 1982 (Demas, 1973).

Since the formation of the OECS, other matters pertaining to education were planned. One recently instituted education sector project has been the Caribbean Textbook Project, a
cooperative venture among the OECS countries utilizing the expertise of a regional publishing company. Another project was the multi-island project for technical and vocational education.

Formal education in the OECS countries now consist of a three-stage system:

1. Eight years of primary education (United States elementary and middle school).

2. Five years of secondary education (United States high school and first year college level).

3. Three years of senior secondary education at a community college.

Progression from one year to another within the primary school, is certified by the Ministry of Education while entry into the senior secondary or community college is determined by the examination results from CXC.

The curriculum as well as the examinations are a function of the council. The home economics program organized by the council is designed to "equip students with values, attitudes, skills and knowledge, which will allow them to make a meaningful contribution to their family life and community." (CXC 1979).

The current secondary school Home Economics program includes food and nutrition, home management, and clothing and textiles. The most important assumption underlying the design
of the program is that home economics can improve the quality of life in the Caribbean. This assumption stems from the council’s recognition of the significance of the family to national development.

The general aims of the program are to:

1. Promote an awareness of the varied activities of home economics, which are academically stimulating, aesthetically satisfying, socially enjoyable, and scientifically important.

2. Provide a medium through which students can be taught to think logically.

3. Provide experiences in aspects of home economics concerned with food, shelter, clothing, health and human relationships.

4. Promote the knowledge and skills through which the quality of life may be improved.

5. Encourage the practice of socially accepted skills, at home, at school and in the community.

6. Encourage the wise use of leisure.

7. Develop decision making skills in relation to the choice and use of equipment, materials and services required by the family.

8. Foster an appreciation for and an acceptance of the indigenous materials.

9. Develop the basic knowledge and skills which will enable students to enter employment in a variety of occupations.
related to the clothing industry and distribution trades (CXC 1972).

**Problem Statement**

This study is aimed at assessing one aspect of the Home Economics educational program, that is the OECS home economics teachers perceptions of the CXC food and nutrition syllabus and the school based assessment guidelines. There appears to be discrepancies between what teachers believe should be taught and what is taught. Blackenship and Moerchen (1979); Berman and Mc. Laughlin (1974); Datta (1981); Drew, Jones and Seigel (1981), suggest that the teacher in the local school setting plays a critical role in curricula improvements. Therefore the teacher's perception of the CXC food and nutrition syllabus and school based assessment component can serve as guides to revealing the importance, adequacy and time allotted to the syllabus. This syllabus was first tested in 1982 and needs to be further assessed in light of several changes taking place in home economics curriculum development. The results of this study could provide helpful information for CXC decision makers and developers of curriculum for Caribbean home economics teachers.

**Objectives of the Study**

1. To assess the CXC Food and Nutrition syllabus in the OECS countries by the following subheadings
A. the importance of the objectives
B. the adequacy of the content in meeting the objectives
C. the number of hours spent on each objective

2. To assess the School Based Assessment SBA component by the following subheadings
   A. projects
   B. written assignments
   C. setting written assignments
   D. marking course work
   E. standardization
   F. recording course work
   G. moderation by CXC
   H. meeting deadline dates

3. To determine the influence of selected independent variables, such as highest level of education attained, island on which they teach, years of teaching experience, years of teaching CXC, number of students in class, adequacy of equipment, and budget for practical classes, on the teachers' perceptions of the CXC food and nutrition syllabus and school based assessment component.

   Research Questions

   In an attempt to assess the CXC food and nutrition syllabus, several questions become pertinent. These are;
   1. What are the characteristics of home economics teachers
regarding their level of education, years of teaching experience, island on which they teach, adequacy of equipment, and number of pupils for practicals?

2. What are home economics teachers opinions of the importance of the objectives and the adequacy of the content in meeting these objectives?

3. What are home economics teachers opinions of the amount of time spent on each objective?

4. What are home economics teachers opinions of the statements of the school based assessment component?

5. What areas in the food and nutrition syllabus need improvement?

6. Which of the following independent variables best predict teachers opinions of the importance and adequacy of the syllabus objectives and content respectively:
   A. highest level of education attained
   B. island on which they teach
   C. number of years of teaching experience
   D. adequacy of equipment
   E. number of students
   F. budget for practicals

7. Which independent variables are predictors of teachers opinions of the SBA.

**Significance Of The Study**

In spite of the aims and objectives of the program which has been in existence for the past eight years, the islands
are plagued with a number of social problems. Some of these problems are family breakdowns, teenage pregnancies, drug and other substance abuse, all of which affect families. While home economics is not the only area dealing with family living, it is the only subject dealing with the inter-relationships of the varying aspects of the family. The 1975 New Directions II, publication from the American Home Economics Association (AHEA) defined the core of home economics as the family ecosystem. This means that home economics is a discipline which draws from the other sciences and incorporates them into the general scope and purpose of home economics as it deals with families and their problems.

The secondary school home economics teachers perceive home economics as being too time-consuming, too rigid, with too many deadlines to meet. At a recent meeting of the Caribbean Home Economics Association held in Trinidad and Tobago in 1989, some of the participants voiced complaints about the program. They also claimed that the program was too brief, and they were not sufficiently trained to handle it.

A study was carried out by Waldron-Fortythe (1984) on Caribbean teachers perceptions of the CXC examinations and school based assessment. She found that several negative comments were made by teachers. Some of these comments were "I would like more information on the grading of students projects." "I need resource persons to share knowledge." "Too much course work and practicals and not enough help from
"More workshops are needed to help teachers with marking the school based assessments." "The syllabus is too wide." "Too much paper work." These differences in perceptions and the ensuing problems of lack of interest and inadequate teaching preparation militate against the effective teaching of the program. It was also recommended that a study be carried out to examine the school based assessment examinations.

The examination developed by CXC seeks to measure students performance in home economics (food and nutrition, clothing and textiles, home management). However, this study will examine only one area, that of food and nutrition. This area was selected as the one most widely taught throughout the OECS countries. Some schools involved in CXC do not prepare students for examinations in clothing and textiles and home management because of lack of facilities. This study can pave the way for other studies on the other areas of the Home Economics program. Food and nutrition is an important cultural bonding in the Caribbean and can be viewed as an important aspect of Caribbean life.

Several calls are being made by Caribbean governments for a review of education systems, especially in the area of technical vocational education. Over the past three years the British Development Division (BDD) and the Caribbean Development Bank (CDB) have established technical vocational education in the OECS countries and have funded its
implementation. Currently, there are three such programs:

1. Home Economics in St. Lucia.
2. Industrial Arts in St. Lucia.

There is new awareness of the importance of technical vocational-type subjects to improve the economic well being of families and society.

Trump & Miller (1973) expressed dissatisfaction with the present school curriculum in the United States. They suggested a major overhaul on curriculum content of all subject fields. They further stated that conventional schools often require much content that pupils neither want nor need, and that unnecessary material causes students to lose interest. More recently there has been a focus on the school itself, and the people in it (Goodlad, 1975 & Sarason, 1971). How do teachers respond to pressure to make changes in their teaching? Since home economics is that aspect of education whose goal is to prepare students for life and living, it is necessary that the subjects be continually assessed to ensure that essential information is transmitted. Since some teachers have the task of implementing the program, there is need to ascertain the views of home economics teachers regarding the food and nutrition syllabus. There is also a need to create a historical record of the program that may be of value to others who want to implement it, or a similar program. Without such a record educators may continue to
duplicate the same mistakes.

Extensive studies have been carried out which highlight the value of teachers as being important in the evaluation process of any school system (Wilder 1986; Morris 1987; Heganin 1987). An understanding of what is being done presently, and the way it is perceived by people who are directly involved can serve as a basis for developing new policies and changing and adjusting existing structures.

There has also been a shift in approach since 1983 which makes schools more accountable for the quality of teaching. Current reforms place more emphasis on content of the curriculum, learning exposure time, higher order thinking skills, and the role of the teacher (Elliot 1989). All of these findings and reforms further highlight the importance of the teacher in the whole education system and the need to improve the syllabus.

The examinations officer at the ministry of education in St. Lucia, Mr. George James will be informed of the results of this study. It is hoped that he will pass on these results and their implications to other higher officials at the planning and policy level. The local and Caribbean home economics associations will also be informed of the results, and steps will be taken with planning and implementation of workshops for home economics teachers.

**Definition of Terms**

**Perceptions:** the process of becoming aware of objects,
qualities or relationships by way of sense organs. While sensory content is always present in perception, what is perceived is "the result of complex patterns of stimulation plus past experiences and present attitudes." (Hilgard et al 1975).

**Home Economics:** a systematic study of the natural and social phenonema of the home and the family and is aimed at improving the quality of life. It is primarily concerned with helping individuals to develop attitudes, values, skills and knowledge which will enable them to make a meaningful contribution to their family life and community. (CXC Home Economics Syllabus 1980).

**School Based Assessment:** the section of the program that the teacher grades. It accounts for 20% of the final examinations. It comprises written assignments, practical assignments and projects assessed and marked by the teacher.

**Program:** a plan of study lasting for a period of time.

**Syllabus:** the term used for the program of study to be followed by students to directly fulfil examinations requirements. It is often called a curriculum.

**Caribbean Examinations Council (CXC):** the official examining body of educators responsible for administering and scoring examinations in the English speaking caribbean.
Assumptions

The following assumptions will be made in conducting this study:

1. Perceptions about a program affect the behaviour of the people involved in its implementation.
2. If teachers' agree on the importance of the program its goals and objectives are more likely to be realized.
3. Teachers perceptions about a program can be used as a means of assessing that program.

Limitations

The limitations of this study are

1. This study is restricted to the OECS countries and cannot be generalized for the entire Caribbean.
2. Perceptions may differ from reality. Memory and failure to accurately report facts about oneself are sources of error.
3. Obtaining an adequate rate of response is a special challenge of mail procedures. Respondents have no chance to react verbally to a question of particular interest or importance (Fraenkell & Wallen, 1989).
4. Due to teachers ownership and commitment of the syllabus, they may have been unwilling to rate the data low, thus creating a sealing effect. Therefore, more positive ratings may have been given than were appropriate.
CHAPTER II
LITERATURE REVIEW

A review of the literature provides theories and procedures of curriculum development in the first section. The second section deals with the evaluation of curriculum, while the third section discusses trends in home economics curriculum development. Finally, the CXC syllabus and school based assessment guidelines are highlighted.

Curriculum Development

The relationship between evaluation and curriculum development is an important one. Curriculum may be defined as "a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act, providing the capabilities described by specified prior units (in the sequence) have already been mastered by the learner" (Tyler, 1967 pg. 23). "Curriculum evaluation, is the process of delineating, obtaining, and providing information useful for making decisions and judgments about curricula" (Davis, 1980 pg. 49). The relationship between evaluation and curriculum is a symbiotic one, since evaluation determines the degree of performance and objectives of a curriculum. However, the theory of curriculum and evaluation to which one
adheres determines the way in which they are examined. Bohn (1983, pg.5) purports a theory to be" primarily a form of insight, a way of looking at the world. According to Bohn, "when we look at the world through our theoretical insights, the results we obtain will evidently be shaped and formed by our theories."

Ralph Tyler's model for curriculum decisions, (Tyler, 1949) has become a classic. His model serves as a reminder of factors to be reviewed in deciding what should be taught to what students. According to Tyler, objectives from three sources may be included in the curriculum. Student characteristics, or the needs and interests of the students should be number one. Needs and interests are influenced by a number of factors such as age, background and ability. Interest in turn affects motivation and should be considered. However, needs and interest do not always mesh, for example, a student may have a need for better nutrition if his/her diet does not meet nutritional standards. These students interest may involve banana cake and many other "empty calorie" foods.

Tyler (1949) also cites societal conditions and expectations as a second source of objectives. This means that the objectives and content of home economics, or any other subject area, can grow out of problems of society. Home economics is greatly influenced by what society expects, but again expectations do not always coincide with societal problems. A societal expection is that parents assume child
rearing responsibilities, but conditions are that children are often abused and neglected.

The content of the field of study forms Tyler's third source of objectives. The content should be closely entwined with objective one, which focuses on the child, and on objective two, which embraces societal conditions. He points out that learning experiences must provide opportunities to practice appropriate behaviour. A stimulating environment must be present to enhance desired attitudes. The content must evoke feelings of certain types while also providing opportunities for intellectual analysis which reveal the consequence of events, ideas and possibilities which are sufficient to inculcate favourable or unfavourable dispositions.

While the content is important, the success of a curriculum also depends on the location of those responsible for its development and dissemination. The greater the distance the developers are from the implementers, the less likely it is for the curriculum to meet the specific needs of the local situation (Redick, Blair, Blackenship & Ferguson, cited in Laster & Dohner, 1986). This distance does not only refer to physical distance but also to professional distance. A teacher who has accepted but not understood a curriculum idea can by some strange invited alchemy render it useless (Beeby, 1966).

Proposers of curriculum development have suggested
various perspectives of looking at other curriculum principles. Eisner and Vallance (1985), have identified five orientations that emerge from diverse alternative prescriptions for the content, goals and organization of the curriculum. These are: cognitive process approach, curriculum as technology, curriculum for self actualization and consumatory experiences, curriculum for social reconstruction and academic rationalism. These orientations attempt to prescribe what should be taught and learned. However the key term is not function, but conception. They are concerned with the way people conceptualize the curriculum for purposes of curriculum development.

The cognitive process approach can be compared to Tyler's first objective, where the focus is on the child. The technology approach highlights the process by which knowledge is communicated and learning is facilitated, by efficient packaging and presentation of materials (Eisner & Vallance, 1985). Self actualization and consumating experiences is concerned with providing personally satisfying and consumatory experiences. Social reconstruction and academic relevance emphasizes the role of curriculum content within the larger social context. It stresses the need for curriculum to provide tools for individual survival in an unstable world.

Giroux (1981) outlined three perspectives on curriculum and instruction: Traditionalist, conceptual-empiricist, and reconceptualist. The teacher translates educational goals
into specific instructional objectives and learning activities in the traditional approach to curriculum. Block's (1981) task oriented mastery learning model and Gagne's (1981) model of teaching are examples of the conceptual empiricists approach. This perspective seeks intellectual integrity based on empirical and conceptual knowledge.

The third perspective, the reconceptualist approach, stresses the need for examining other areas such as political and social interests and different forms of knowledge on which to reflect. It attempts to offset these areas which characterized the curriculum field in the past.

Gay (1980) elaborates on four models that may be used to conceptualize the curriculum planning process: The academic model, the experiential model, the pragmatic model, and the technical model. The academic model uses scholarly logic as a basis for curriculum development. This model is similar to Eisner & Vallance's (1985) cognitive process approach, and to Giroux's (1981) traditionalist approach. The experiential model contrasts with the theoretical model since it is more centered on the learner, and is more activity oriented. The pragmatic model holds that planning is carried in the local context. In the technical model, learning itself is perceived as a system which consists of different parts which are predictable, while effectiveness can be improved through good control.

Beauchamp (1981) indicates that a curricula system
provides a framework for deciding what should be taught in schools. He suggests that a system has three primary functions; to produce a curriculum, implement it and evaluate it. Input should come from several sources, including social and cultural, as well as persons involved. Outputs should be student learning, and perceived needs for curriculum changes and instructional practices.

Much of the theory that relates to education and specifically to curriculum stems from the philosophical and or the humanistic orientation. Gordon (1968) and Schubert (1986) declare that curriculum theory is a subset of philosophy. However all these theories consider the child and his environment as being important. Since they are all theories they see curriculum with different shades of the same colour.

**Curriculum Evaluation**

Curriculum evaluation requires collection, processing and interpretation of data, pertaining to an individual educational program. Tyler (1967) and Taba (1962) describes curriculum as a way of preparing young people to contribute to their culture. It can also be conceived as what the teacher will do in terms of what learning experiences the student will be exposed to, or according to Tyler (1967) student achievement. Curriculum evaluations must be well organized in order to lead to meaningful decisions, improved development, selection and increased use of curricula.

Rossi and Freeman (1982) proposed that one purpose of
evaluation is to judge the worth of ongoing programs and estimate the usefulness of attempts to improve them. A second purpose is to assess the quality of innovative programs and initiatives and in addition to improve the effectiveness of program management and administration. Meeting accountability requirements is another important purpose of evaluation. However the purpose of evaluation influences the type of evaluation that is to be carried out.

Stufflebeam (1971) produced a general model of five main stages of evaluation. These stages are delineating, obtaining, providing and utilization. Delineating involves specifying the audience and describing the information needed, while obtaining deals with information already available, and constructing data gathering instruments. Interpretation and analysis of data forms part of the providing process, and utilization deals with decision and judgements. Stufflebeam claims that data is useful when it meets the predetermined criteria developed through interaction between the evaluator and the client. The descriptive or interpretive data collected leads to decision making when it presents a choice of alternatives on which to act. The Stufflebeam model was used to evaluate a social studies curriculum in Northern Illinois (Sippy, 1988). The aim was to determine program evaluation practices. The results were that teachers instructional behavior are assessed more than students learning behavior and civic behavior. In general, evaluation
tends to utilize teachers and administrators as opposed to students, parents and the community.

Hunkins (1980) proposed a curriculum model which lists evaluation as one of its stages. He also mentioned diagnosis, development and experiences, selection, implementation and general maintenance of the curriculum system. Hunkins sees formative evaluation and summative evaluation as a part of the total cycle to adjust and review the quality of a program in an effort to make changes. Evaluation cannot be seen as one process, but as a group of processes used to determine whether the curriculum is fulfilling it’s aims and expectations as was originally intended.

Taba (1962) suggested five basic steps in evaluating a program. These are similar to Hunkins’s and consist of formulation and clarification of objectives; selection of appropriate devices for getting evidence, application of evaluative criteria, information on the background, and translation of evaluative findings into improvements of the curriculum and instruction.

Remmers (1978) suggested an evaluation matrix, where cells are filled with information as it is accumulated. This technique helps the evaluator to identify emerging themes and indicate further issues which then become the thrust of analysis description and reporting to those trying to develop or change a program.

Worthen (1974) proposed a sample worksheet for preparing
an evaluation plan. It necessitates filling in each column with appropriate information. Checklists are used to ensure that the evaluation questions are answered.

Levy's model (1977) gives a mapping sentence of curriculum evaluation, and sees evaluation as providing information for the sake of decision making at various stages of curriculum development like aims, content, materials, or outcomes. The basis may be measurement, description, observation, or judging for the sake of decision making about modifying, selecting instruments, qualifying, accepting or rejecting the program (Davis, 1980).

Another development of a model for evaluation has been suggested by Piper (1975). He suggested four main aspects of materials that might require evaluation; goals of materials, format, processes and outcomes.

Scriven (1967) explained evaluation as an activity which consists of gathering and combining performance data using specific scales to provide comparative or numerical ratings. He sees the main responsibility of evaluation as making judgements. He purports that evaluators must assess both goals and results and then arrive at conclusions about the overall merit of the program. Fullman (1982) however claims that any evaluation which focuses on quantitative student data collected from achievement tests is a very limited form of evaluation. Such evaluation can be used to revise educational policy, but it does not provide any information on teacher
practice and difficulties during implementation. Guba (1968) had similar ideas, and suggested that evaluation is concerned with what works, and that while evaluation is concerned with outcome, one cannot evaluate until performance has taken place and can then be compared to objectives. This he declares places an overwhelming importance on behavioral objectives.

The assignment of grades to students product evaluation is only one aspect of evaluation. The program, process and the product all contribute to the basis for decision making. However the main aim of process evaluation is to detect or predict defects in the procedural design of the program and to determine if it is being implemented as planned (Lawson and Wentley, 1975). The teachers effectiveness is a part of the procedural design for the implementation of the curriculum. Thus evaluation gives the teacher the opportunity to consider and correct deficiencies (Popham, 1973).

A model for critiquing curricula has been proposed by Ray (cited in Laster & Dohner 1986). The goal in this model is to ensure that every aspect of curriculum maintains its integrity and internal logic. It provides for general standards, and external and internal criteria for ten variables. These variables are; philosophy and objectives, desired outcomes for learners, desired social and economic outcomes, content components, needs interests and aptitudes of learners, needs interest and concerns of society, instructional strategies, observed outcomes for learners,
observed social and economic outcomes, and statement of philosophy and objectives. In this model, the philosophical content dictates both the objectives and the content.

This study focuses on ideas from Fullman (1982), Guba (1968) Popham (1973), and Lawson and Wentley (1975). Fullman’s idea states that evaluation should not focus on student performance, but that it should provide information on teacher practise and difficulties during implementation. Guba (1968) had similar ideas. He stated that while evaluation is concerned with outcome, one cannot evaluate until performance has taken place and so the behavioral objectives are very important. Popham (1973) believes that evaluation gives the teacher opportunities to consider and correct deficiencies. Lawson and Wentley (1975) proposed that evaluation should predict defects in the procedural design of a program to determine if it is being implemented as planned.

**Teachers Role in Curriculum Development and Evaluation**

The importance of teachers role in curriculum development cannot be overemphasized. Although proposers and evaluators do not mention the teacher directly, it is always implied that teachers will be involved at some stage, usually the implementation stage. Tyler (1949) does not highlight the importance of teachers in curriculum, but he however, refers to them, since their philosophy of education, what they prefer to teach, and what they assign priority to are relevant factors to consider. Westbury (1983) (cited in Laster &
Dohner, 1986), suggests that the period of teacher proofing curricula has passed and that teachers must be considered in the choice of development and implementation models. Berman & Mc Laughlin (1974), (cited in Laster & Dohner 1986), also suggests that when teachers or implementers and developers share joint responsibility for the outcome of a project, the changes in the curriculum become more durable. This further supports the teacher in the local school setting as playing an important role in curriculum improvement. From the point of view of curriculum, the key practitioner is the teacher. He or she is the intermediary between learner, theoretical knowledge and the world to which knowledge refers.

Miller (1989) examined the relationship between required teacher participation in curriculum planning and implementation of curriculum guides. He found that a positive relationship existed between active participation in curriculum planning activities and the use of locally produced curriculum guides resulting from that participation.

Sancho Gil (1988) carried out a study utilizing teachers for curriculum evaluation. This study revealed that the evaluation of curriculum implementation in schools can become an important device of analysis and explanation of teachers practices that could increase the amount of knowledge about particular cases and help to detect educational problems placed outside of the schools responsibility. It also proposes that teachers can be allowed to undertake the
evaluation of their own curriculum implementation from a naturalistic perspective using case study methodology.

Wilder (1986) examined the perceptions of secondary home economics school teachers concerning the adequacy of their home economics preparation. These teachers were from Arizona, Nevada, New Mexico and Utah. The results revealed that teachers needed continuing education in single parenting, dual working families, human relationships, family communications, child abuse and neglect and decision making skills.

In most cases evaluation instruments utilize demographic data to better evaluate the teachers responses and to make associations. Teeter (1989) researched how home economics teachers in Tennessee perceived their ability to teach concepts outlined by subject matter areas in home economics curriculum. The data was analyzed using the analysis of variance tests to determine whether there was a significant difference between perceived competency subject matter areas and the independent variables of years of teaching experience, highest degree, grade level taught, and weeks taught in each area. Findings indicated that as a group, teachers rated themselves adequate or above on every concept. The highest percentage of very good responses was in the food and nutrition area. Demographic factors such as advanced degree and number of weeks taught in each area affected perceived competence in some areas.
A similar study which utilized demographic variables of sex, nationality, length of teaching experience, length of inservice program and number of workshops, was carried out in Oman (Abdelgalil, 1988). This evaluation was done by assessing the degree of accordance between the designers intentions, as expressed by learning objectives and recommendations for implementation, and the conceptions of these intentions by the implementers, the teachers and administrators at the school district. The response of supervisors and administrators reflected more conformity and uniformity than the teachers who showed more variability due to variability in their age, experience, and social and academic background.

Curriculum Evaluation Studies in Caribbean Education

Few studies have been carried out in the Caribbean in the area of home economics specifically and vocational education in general. Morris (1987) studied the components of high quality vocational technical teacher education programs to determine what components are required by vocational technical teachers in Jamaica. He was attempting to provide data relevant to critical decisions to development of technical teacher preparation at the College of Arts Science and Technology (CAST) in Jamaica. He found that differences existed between essential program components for technology, Home Economics and Business Education as selected by teachers and administrators.
Waldron-Forsythe (1984) evaluated the effectiveness of the teachers' use of the CXC syllabus (food and nutrition, clothing and textiles and home management) and the SBA on their teaching methods and the use of teaching resources. The variables used were age, years of study, size of class, years of teaching experience, in service programs related to CXC and the teachers' opinions of the usefulness of the syllabus and the SBA guidelines. The findings were limited by the sparseness of returns, for example all the data from one of the largest countries were received after the deadline date and was not included in the sample. It was suggested that a similar study be carried out to ascertain the reliability of the results. Results also revealed that the syllabus had only been in existence for two years and that most teachers were not yet thoroughly acquainted with it. However the majority possessed negative attitudes towards the usefulness judging from negative comments made, especially about the SBA.

Still in the Caribbean, Heganin (1987) surveyed a population of 74 school teachers in Belize to determine the influence of the agriculture program on the nutrition knowledge and and the attitude of food choices, nutrition-related diseases and nutrition principles. Results showed that there was a significant difference between the principles of nutrition correlation and food choices.

In summary, there are several methods of evaluation, all of which are useful in particular curriculum situations.
Some methods stress performance, others emphasize implementation and teacher performance. The few studies which have been done in the Caribbean have utilized teachers. It all depends on the aim of that particular evaluation process which should be clearly stated at the outset, so that it communicates the main focus of that particular evaluation.

**Trends in Home Economics Curriculum**

Home Economics curriculum has always been a confusing and complex matter surrounded by ideas that do not seem to fit together into a cohesive framework. Varying views have several different emphases, focuses, and underlying values (Thomas 1986). Much of this diversity has been sifted by home economics programs in schools as home economists try to make programs more meaningful, reflecting societal changes and patterns. In so doing they have adapted several programs to incorporate various subject matter deemed important. However some of these programs have been too technical with some theoretical problems, and lack problems requiring the critical thinking problem solving skills as well as action related to the practical problems of what to do (Meyer, 1981, cited in Anderson, 1986). Consequently, there are various views which are reflected in trends in home economics development.

Most curriculum designs can be classified as modifications and or combinations of three basic designs, subject centered, learner centered, and problem centered. In all trends, the goal of home economics as well as the
conceptual framework and rationale are important aspects to be considered.

Three theoretical frameworks which permeate home economics are the traditional perspective, the empirical perspective and the reconstructive perspective. These three aspects as aforementioned were proposed by Giroux (1981). However, selecting a particular design is not an easy decision. It depends on the curriculum planners philosophy concerning goals of home economics, characteristics of learners, sources of objectives, the needs of the society, and the nature of learning, along with the wider goals of education.

One such design is competency-based education in home economics (A.H.E.A 1974). Blackenship & Moercher (1979) described the competency-based approach as analyzing what a person actually does in particular job roles, specifically the use of task analysis. They described a task analysis as a detailed list of both overt and covert actions performed in a job or work role. This definition does not include knowledge required to perform a job as well as attitudes that affect the worker’s ability to do so. The focus is primarily on psychomotor learning, to develop skills needed to function as a wage earner and as a homemaker.

Task analysis can be used as a basis for home economics curriculum, since it identifies important tasks carried out in home economics related occupations. Several studies have
been carried out to identify the frequency and importance of tasks carried out in home economics related occupations (Beaver, Fanslow, Hanson & Crawford, 1974).

Practical problem orientation to home economics curriculum is another current trend in home economics development. It involves technical action which focuses on the application of prescriptive procedures to achieve an outcome that can be predicted and controlled. Interpretive action is concerned with bringing about understanding through communication, where in there is shared meaning. The focus is on a combination of cognitive, affective and psychomotor learning, and also on the content, process and action which together emancipates the learner. This emancipatory action encourages freedom to act with responsibility, without being forced or manipulated either consciously or unconsciously: (Hultgren & Shear 1983).

Practical reasoning is the process of deliberating about what ought to or should be done to solve practical problems. The major concern is to determine what action to take based on the belief that several actions are possible. Sound deliberation is required to obtain a solution. The instructional mode for a curriculum is based on themes which provide awareness, problems and valued ends, somewhat similar to practical problems orientation.

The concept based trend can be compared to the traditionalist approach mentioned earlier. Here the scope and
sequence is predetermined and arranged. The focus is on cognitive learning, although it does not completely ignore the affective and the psychomotor aspects. Subject matter is structured and knowledge is sequenced according to the needs of the society.

Several approaches employ the conceptual framework approach which implies identifying a core of major concepts and arranging supporting concepts. While Tanner & Tanner, 1975, cited in Wilsman, 1986, have pointed out that principles regarding the learner, social forces, and subject matter and the world of knowledge need to be considered in an interrelated manner, the core of major concepts must revolve around the family. Brown (1980) indicated that the concern of home economics is with the family as a family. These supporting concepts must deal with conditions which influence the family to serve as a medium through which members can develop as decent human beings. A sound philosophical base is used to arrange concepts in sequence. If the aim of home economics is to help students become increasingly critical, creative and morally responsible in decision making and action regarding the home and family, then home economics must decide what these problems are when deciding on the philosophical base (Brown and Palluci 1979).

Several studies have been carried out on trends. Crouse (1984) designed an instrument to identify trends in home economics education based on current and projected goals. The
results revealed a significant association between curriculum emphasis and the variables of the program emphasis, planning strategies, financial resources and student recruitment efforts. These findings indicated that computer technology, problem solving skills and professional standard ethics had the highest degree of emphasis for curriculum in the future. Computer technology, preparation for leadership, conflict management skills showed the greatest change from the current to the projected future.

Wilder (1986) found that there was a high level of awareness of trends affecting the home economics teaching profession. The five trends with the highest ratings were; 1. single parent families, 2. human relationships, 3. family communication, 4. child abuse and neglect, and 5. decision making skills.

Apple (1983) suggests that home economics teachers direct themselves to the future and think in terms of adapting to the current curriculum. He continues by saying that the curriculum should "give people the ability to interpret social change and to reflect critically on their daily lives." (pg. 325). Apple believes that teachers should define the new directions or trends in the society, anticipate difficulties or obstacles and then become change agents by evaluating and revising curriculum to help students develop skills to meet society’s needs.

Naisbitt (1982, 1985) explained megatrends as new
directions that are transforming our lives. Those that are most relevant to home economics curriculum planning are; the movement from the industrial society to an information society, the movement in the dual direction of high technology touch, and the movement from institutional help to self reliance in all aspects of our social lives.

All modern trends in home economics curriculum point to the family as the key organizer, concept, and focal point. In the 60's the dominant theme was subject matter about families and their problems. In the 70's, Taba, Joyce & Weil (1972) developed a scheme for questioning as a way of making thinking processes distinguish relevant factors and make associations with old learning. Brown (1978) then provided a strong rationale for the problem orientation of home economics with particular concern for perennial practical problems of families. Throughout these changes, home economics has integrated content with new developments in an effort to help students make better choices and decisions as they attempt to manage resources.

New directions AHEA (1975 pg.12) defines home economics as "a field of knowledge and service primarily concerned with strengthening family life and home economics as a field of study which synthesizes knowledge drawn from its own research, from physical, biological science and the arts, and applies this knowledge to improving the lives of families and individuals". This concept has given rise to some educators
renaming home economics as human ecology, with more emphasis on inter-relationship between family and environment and drawing on the related sciences to help solve family problems.

Brown & Paloucci (1979) suggested using the family as the key organizational concept of the curriculum. Inter-related concepts should facilitate the development of human capacities in the family, and the development of the society which functions in the common interest of all. Other key concepts should be closely related to the major one.

Families constitute society and the environment within and outside the family has been affected by technology and other changes. The amount of information available in all areas of home economics is increasing rapidly. The task is to be able to manage the information and to sift it to provide content which is most appropriate for students. The basic facts and principles must not be omitted, and students must learn how to learn, to solve problems, and to think critically as they begin to prepare for the future.

CXC Syllabus and School Based Assessment

The main aim of the syllabus in food and nutrition is to promote an awareness of the scientific principles on which food preparation is based (CXC syllabus 1982).

General objectives of the food preparation and service section are that the student should be able to:

1. Demonstrate skill in the preparation of food in order that nutritive value be preserved.
2. Identify the cultural, social and economic factors which influence food habits.

3. Develop positive attitudes in selecting food to maintain good health.

4. Demonstrate managerial skills related to food preparation in institutions.

5. Develop the art of serving foods attractively.

6. Use good consumer practices to select food, food services and equipment for the home and for food preparation in institutions.

7. Demonstrate skill in the use and care of a variety of domestic and institutional kitchen equipment.

8. Demonstrate awareness of the scientific principles on which food preparation is based.

9. Develop skills which will immediately and effectively lead to improved economic status thorough self employment.

General objectives of the nutrition section are that the student should be able to:

1. Acquire information on the principles of nutrition as a means of promoting the healthy growth of the individual at all stages of the life-cycle.

2. Demonstrate a knowledge of the scientific principles on which nutrition is based.

3. Select well-balanced diets based on the use of nutritious
indigenous foods, and understand the role which such use in improvement of his own as well as the national economy.

4. Identify the relation between inadequate diets and nutritional diseases and identify preventive measure and curative treatments. 

5. Demonstrate a knowledge of the many factors which influence the nutritional status of people.

6. Discuss the nutritional problems of the Caribbean people and examine possible solutions.

The specific objectives and content for each section are in the appendix.

CXC has a variety of measuring techniques to assess the performance of candidates. Two modes of assessment are used. A final written examination and an internal school based assessment.

SBA is the teachers' evaluation of the candidates coursework assignment projects and practicals which are set over a two year period. Teachers evaluation are carefully moderated by CXC to ensure consistency throughout the region. The school based assessment component ranges in value of 20% of the final mark. SBA affords greater teacher participation in the final assessment of candidates and avoids complete reliance on a one shot examination.

There is an examining committee of three persons.
Question papers are made under the direction of a chief examiner, with technical advice from a CXC staff member from the Council’s measurement and evaluation division. Question papers are made to the specifications laid down in the syllabus. Multiple choice items are made by teachers. These are reviewed by specialists and pretested before being included in a bank from which items are drawn for a multiple choice paper. The multiple choice items are kept secure and the booklets must be returned by candidates.

Free response question papers and marking schemes are developed by the members of the examining committee. These along with multiple choice papers are sent to two other external moderators, who are advised to scrutinize the papers and comment on syllabus coverage, length of paper, difficulty level, caliber of questions, standard of paper and range of skills and abilities tested (Voice of St. Lucia 1987).

CXC provides grades on both basic and general proficiency examinations in terms of a continuous scale. Definitions for this scale are as follows:

i. Comprehensive knowledge of syllabus.

ii. Knowledge of most aspects of syllabus.

iii. Knowledge of some aspects of syllabus.

iv. Limited knowledge of our aspects of syllabus.

v. Insufficient evidence on which to base a judgement (CXC Appendix II, 1987).
Summary

The use of the term evaluation can cover a wide variety of meanings leading to evaluating anything about the school and curriculum. The objectives, scope, personnel, students, importance of various subjects and the extent to which objectives are put to use, can all be evaluated together or as separate entities (Taba, 1962). Consequently any complete program, curricula or syllabus can be evaluated to determine to what extent the respective curriculum is effective and where it needs improvement.

Home economics is an area which draws from multiple disciplines, and in some cases multidisciplinary concepts. It is concerned with families and their problems. Various trends have emerged which highlight the teaching of the subject. However, despite these trends, all curriculum must be evaluated by one method or another. The appropriate method is dependent on the focus of the evaluation.

While evaluation is often associated with student grades as product evaluation, the teachers role in the instructional process is central to any evaluation. Several studies have shown that teachers are capable of evaluating their own curriculum and making valuable contributions to it’s development and evaluation (Wilder, 1986; Morris, 1987; Sancho Gil, 1988; Heganin, 1987).

The ultimate goal of curriculum is to make meaningful learning experiences available for learners. Concurrently,
the goal of evaluation is to judge the potential of a given set of educational materials to provide the experiences originally intended by the curriculum maker. This evaluation may focus on any aspect of the curriculum such as achievement of objectives, and implementation, once it is specified at the outset.

In view of the potential role of home economics teachers in the shaping of curriculum through evaluation, it seems apparent that a study of teachers perceptions of the CXC food and nutrition syllabus and the SBA component would be helpful in program improvement and making needed changes.
CHAPTER 111

RESEARCH METHODOLOGY

The main purpose of this study was to assess the C.X.C. Food and nutrition syllabus in the O.E.C.S. countries. The syllabus was investigated with special attention to specific areas, namely the objectives, content, and the school-based assessment. Other selected independent variables such as level of education, years of teaching experience, island on which they teach, number of students per session, adequacy of equipment, and budget allocated for sessions, were chosen because of their potential influence on the use of the syllabus.

In this chapter the writer describes the instrument, population, data collection procedures and data analysis procedures. A descriptive correlational research design utilizing a questionnaire was used in this study. Data were collected to answer the following research questions.

1. What are the characteristics of home economics teachers regarding their level of education, their years of teaching experience, island on which they teach, adequacy of equipment, number of pupils and budget for practicals.

2. What are home economics teachers opinions of the
importance of the objectives, and adequacy of the content in meeting these objectives.

3. What are home economics teachers' opinions of the amount of time spent on each objective.

4. What are home economics teachers' opinions of the statements in the school based assessment component.

5. What areas in the food and nutrition syllabus need improvement.

6. Which independent variables are predictors on the dependent variable of teachers' opinions of the objectives and adequacy of the syllabus content.

7. Which independent variables are predictors of the dependent variable of teachers' opinions on the SBA.

Population

The data were gathered by questionnaire. Survey data was solicited from the entire population of one hundred secondary food and nutrition teachers, who prepare students for CXC examinations. There are approximately 250 home economics teachers in the OECS countries, some of whom teach clothing and textiles and home management. Letters seeking permission from the different ministries of education were sent. These letters gave information about the purpose of the study and the distribution to the home economics teachers. Letters were also sent to the registrar of CXC informing him of the study. CXC information was obtained from the main library at the Sir Arthur Lewis Community College in St. Lucia, and from the
examinations officer attached to the Ministry of Education in St. Lucia, Mr. George James.

**Instrumentation**

The researcher designed instrument consists of 3 sections and a total of 58 responses. It was designed using the Borich Needs assessment model and the Likert scale.

**Borich Model of Needs Assessment**

This model was used to provide a system by which data can be collected, analyzed, and interpreted (Borich 1980). It was used to identify the areas of the food and nutrition syllabus; namely the objectives and the content. Borich (1980) suggested that the needs assessment model is essentially a self-evaluating procedure which relies on the judgement of teachers about their own performance (pg 8).

According to Borich, a process of identifying needs can be conceptualized as the two polar positions of what is and what should be. The difference between these two poles can then be used as an understanding of the effectiveness of the syllabus in reaching its intended objectives. The framework for deciding which part of the syllabus needs modification or revision is derived from (1) prioritizing the discrepancies, by weighing the relative importance of each statement from values assigned to them by the respondents, and (2) ranking those weighted measures in descending order. (pg 4). The statements with the highest discrepancy scores will be considered as high priority.
The Borich Needs Assessment Model consisted of a series of statements of the objectives of the syllabus derived from the CXC food and nutrition syllabus. It will pay special attention to the

1. Objectives
2. Adequacy of the content in meeting objectives.
3. Amount of time spent on objectives.

A five point type scale was used to determine the responses regarding the importance, level of adequacy and amount of time spent on each objective of each statement. The following values were used in the rating scale

5. very important
4. important
3. neutral
2. not very important
1. unimportant

5. very adequate
4. adequate
3. neutral
2. not very adequate
1. inadequate

5. five hours or more
4. four hours
3. three hours
2. two hours
1. one hour

The teachers opinions regarding the importance of the syllabus objectives, adequacy of the content, and the number of hours spent on each objective was ascertained using the above scales.
The discrepancy scores for the items will be determined by subtracting the perceived importance rating of the objective from the perceived adequacy of content rating of each item in the Borich Scale. The following tables will explain how the discrepancy scores are attained. Table 1 displays the difference between the importance and adequacy ratings, where the adequacy rating is subtracted from the importance rating. The result is the difference.

Table 1

**Difference Between Importance And Adequacy Ratings.**

<table>
<thead>
<tr>
<th>Case</th>
<th>Importance Rating</th>
<th>Adequacy Rating</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>-1</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

\[ n=4 \quad 12 \quad -\bar{x} = 3 \]

Importance Mean = 3.0

The difference was then multiplied by the mean perceived importance for all respondents on a particular item.

(Table 2)
Table 2

The Difference Times the Mean For All Respondents.

<table>
<thead>
<tr>
<th>Case</th>
<th>Difference</th>
<th>X</th>
<th>Importance Mean</th>
<th>Discrepancy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>-1</td>
<td>3</td>
<td></td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>3</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

To determine the adequacy discrepancy score for the item, the mean of the discrepancy scores for all respondents on the item, was computed. (Table 3)

Table 3

Discrepancy Score Per Case

<table>
<thead>
<tr>
<th>Case</th>
<th>Discrepancy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

n=4

Item score=9/4=2.22
To determine the discrepancy score for the domains, food preparation and service and nutrition, the discrepancy score for all the items in the domain was totalled and divided by the number of items in the domain (Table 4).

Table 4
Discrepancy Scores For The Domains.

<table>
<thead>
<tr>
<th>Item</th>
<th>Discrepancy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

\[ n=6 \]

\[ \text{Domain discrepancy score}=\frac{27}{6}=4.5 \]

The highest discrepancy score for the domains and items indicate that the respondents had higher importance ratings than adequacy.
These discrepancy scores indicated the areas of the program that should be given high priority in efforts to improve it. Items within a domain which have the highest discrepancy was given first priority. Zero or negative discrepancy scores indicated that the respondents rated these low and they were ignored.

The Likert Scale

The likert scale which measures attitudes and perceptions was used to determine teachers' perceptions regarding the school based assessment guidelines of the food and nutrition syllabus in terms of:

1. Projects
2. Written assignments
3. Setting written examinations
4. Marking course work
5. Standardization
6. Recording course work
7. Moderation by CXC
8. Meeting deadline dates

It consists of a five point scale ranging from strongly agree to strongly disagree, with an undecided category. It consisted of an equal number of positive and negative items about the school based assessment component. Means, modes and standard deviations were used to analyze this data.
Data Collection

The distribution of questionnaires took place during the Ninth Biennial Conference of the Caribbean Association of Home Economists in Grenada from the second to the fifth of April 1991. The president of the association was written a letter to that effect, and permission was requested. These questionnaires were posted express mail to the St. Lucia, and the president of the local association was responsible for carrying and distributing at the conference. Some questionnaires were also sent to those teachers who did not attend the conference. Data collection closed on the May 5th 1991.

Follow up telephone calls were made to Dominica, Anguilla and St Kitts and Nevis, since these islands had not responded by the deadline date. This resulted in three more responses from Dominica. Of the 100 questionnaires that were sent out, 70 were returned, yielding a response rate of 70%.

Personal Data

Teachers answered open ended questions on their level of education, years of teaching experience, island where they teach, number of students per session, adequacy of equipment, and budget allocated for sessions.

No sampling of teachers was done, thus making the study a census. These home economics teachers were from the OECS islands of Antigua and Barbuda, Dominica, Grenada and Cariacou, St. Lucia, St. Vincent and the Grenadines,
Validity

To determine the content validity and usability, the home economics supervisors from the OECS islands, the assistant chief examiner for CXC food and nutrition, and the head of the home economics department at the College of Arts Science and Technology in Jamaica were asked to make recommendations, inclusions and deletions to the proposed questionnaire. Suggestions were made about the wording of the heading for the Borich Type Scale, and the statements in the Likert Scale. These recommendations were considered and changes were made to the final copy of the questionnaire.

To determine the content validity and usability of the Likert Scale, the home economics teachers from the St. Lucia Home Economics Association were asked to express their beliefs about the school based assessment component of the CXC food and nutrition syllabus on the 6th of December 1990. These statements were recorded and slightly modified for use in the Likert Scale.

Data Analysis

After the data were collected, coded and recorded, the Statistical Package for Social Sciences SPSSx was used to analyze the data. Table 5 illustrates how these data were analyzed.
Table 5

Descriptive Statistics Used In The Analysis Of Data.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. What are the characteristics of home economics teachers regarding their level of education, their years of teaching experience, island on which they teach, adequacy of equipment, number of pupils and budget for practicals.</strong></td>
<td><strong>Frequencies and percentages</strong></td>
</tr>
<tr>
<td><strong>2. What are home economics teachers' opinions of the importance of the objectives and adequacy of the content in meeting these objectives.</strong></td>
<td><strong>Means and standard deviations</strong></td>
</tr>
</tbody>
</table>
### Table 5 (Continued)

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. What are home economics teachers opinions of the amount of time spent on each objective.</td>
<td>Means and standard deviations</td>
</tr>
<tr>
<td>4. What are home economics teachers opinions of the statements in the school based assessment component.</td>
<td>Means, modes and Standard</td>
</tr>
<tr>
<td>5. What areas of the food and nutrition syllabus need improvement.</td>
<td>Rank ordering and mean discrepancy scores</td>
</tr>
</tbody>
</table>
Table 5 (Continued)

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. which independent variables are predictors of the teachers opinions of the</td>
<td>Stepwise Multiple</td>
</tr>
<tr>
<td>importance of the objectives and adequacy of the syllabus content.</td>
<td>Regression</td>
</tr>
<tr>
<td>7. Which independent variables are predictors of the dependent variable of teachers</td>
<td>Stepwise Multiple</td>
</tr>
<tr>
<td>opinions of the SBA.</td>
<td>Regression</td>
</tr>
</tbody>
</table>
CHAPTER IV

Findings And Discussions

The purpose of this study was to assess the CXC food and nutrition syllabus in the OECS islands. In addition, selected independent variables of highest level of education attained, island on which the teachers teach, number of years of teaching experience, adequacy of equipment, and budget for practicals were investigated to determine their influence on teachers opinions. This chapter presents the findings in eight sections. (1) Location of respondents. (11) Personal data. (111) Opinions regarding the importance of the objectives and adequacy of the syllabus content in meeting the objectives. (IV) Opinions regarding the amount of time spent on each objective. (V) Opinions regarding the school based assessment component. (VI) Suggestions for improving the food and nutrition syllabus. (VII) Independent variables as predictors of teachers opinions of the importance and adequacy of syllabus objectives and content respectively. (VIII) Independent variables as predictors of teachers opinions of the SBA. The presentation is organized according to the research questions asked previously.

Data were recorded on the mainframe at the Instructional
Research Computer Centre at the Ohio State University. The SPSSx and SAS statistical packages were used to analyze and describe the data with frequencies, means, standard deviations, discrepancy scores, and stepwise multiple regression.

Location of Respondents

Of the 100 questionnaires sent out to OECS home economics teachers, usable data were obtained from 70 questionnaires. These teachers teach CXC food and nutrition on their respective islands.

An examination of Table 6 indicates that home economics teachers from all the OECS islands were represented. Of the 70 questionnaires received from the teachers, 17 came from St. Lucia and St. Vincent (48.6 percent), while 13 (18.6 percent) came from Grenada. 7 came from both Dominica and Antigua (20.0 percent). Montserrat sent 4 (5.7 percent), Tortola 3 (4.3 percent), and Anguilla 2 (2.9 percent).
Table 6

Usable Data Received from OECS Home Economics Teachers by Island.

<table>
<thead>
<tr>
<th>Island</th>
<th>OECS Home Economics Teachers</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Lucia</td>
<td></td>
<td>17</td>
<td>24.3</td>
</tr>
<tr>
<td>Grenada</td>
<td></td>
<td>13</td>
<td>20.0</td>
</tr>
<tr>
<td>St. Vincent</td>
<td></td>
<td>17</td>
<td>24.3</td>
</tr>
<tr>
<td>Dominica</td>
<td></td>
<td>7</td>
<td>8.6</td>
</tr>
<tr>
<td>Antigua</td>
<td></td>
<td>7</td>
<td>10.0</td>
</tr>
<tr>
<td>Tortola</td>
<td></td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td>Anguilla</td>
<td></td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>Montserrat</td>
<td></td>
<td>4</td>
<td>5.7</td>
</tr>
</tbody>
</table>

70 100.0
Personal Data

Research Question 1

What are the characteristics of home economics teachers regarding their level of education, years of teaching experience, adequacy of equipment, number of pupils and budget for practicals?

The personal data concerns the population of 70 home economics teachers who teach CXC food and nutrition on the OECS islands. This data was divided into 2 sections, (1) professional experiences, and (2) program characteristics. As shown in Table 6, the variables were, highest level of education attained, and number of years of teaching experience.
Table 7

Professional Experiences of OECS Home Economics Teachers.

<table>
<thead>
<tr>
<th>Descriptive Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. C. E.</td>
<td>8</td>
<td>11.4</td>
</tr>
<tr>
<td>C. X. C.</td>
<td>6</td>
<td>8.6</td>
</tr>
<tr>
<td>Diploma</td>
<td>33</td>
<td>47.1</td>
</tr>
<tr>
<td>Degree</td>
<td>12</td>
<td>17.1</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>12.9</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Teaching Experience in Years</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>10</td>
<td>14.3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>14</td>
<td>20.0</td>
</tr>
<tr>
<td>11 and above</td>
<td>45</td>
<td>64.3</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>CXC Home Economics Teaching</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience In years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>48</td>
<td>68.5</td>
</tr>
<tr>
<td>6-10 years</td>
<td>18</td>
<td>22.9</td>
</tr>
<tr>
<td>11 and above</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Investigation of the variable related to level of education of education showed that 47.1 percent of the teachers, or the majority (33) had a two year diploma, while 17 percent had a four year degree (12). 20.0 percent either had sat and passed the British General Certificate in Education (GCE), or CXC (14). A further analysis indicated that the 9 cases reported as other, held other levels of education that were not provided for in the questionnaire. eg. certificate in home economics, or teaching certificates. There was no one with a masters degree.

The respondents were asked to indicate their years of teaching experience, and more specifically their years of teaching CXC home economics. Of the 70 respondents, 10 (14.3 percent) had five years general teaching experience, while 48 (68.5 percent) had taught CXC home economics for five years. This shows that the majority of respondents had been using the CXC syllabus for five years. 14 (20.0 percent) had five to ten years of general teaching experience, while 18 (22.9 percent) had been teaching CXC home economics for that period of time. Only 2 (2.9 percent) had been teaching CXC from the time of its inception eleven years ago, while 45 (64.3 percent) had teaching experience for eleven years or more. This data shows that the majority of teachers have 11 or more years of teaching experience in general, and up to five years with the CXC syllabus.
<table>
<thead>
<tr>
<th>Descriptive Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class size For Practicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 10</td>
<td>10</td>
<td>13.4</td>
</tr>
<tr>
<td>10-20</td>
<td>41</td>
<td>58.2</td>
</tr>
<tr>
<td>20-30</td>
<td>12</td>
<td>17.9</td>
</tr>
<tr>
<td>Above 30</td>
<td>5</td>
<td>7.5</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
<tr>
<td>Adequacy of Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>34.2</td>
</tr>
<tr>
<td>No</td>
<td>44</td>
<td>62.9</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
<tr>
<td>Budget for Practicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>23</td>
<td>32.9</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
<td>58.0</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 8 indicates that 58.2 percent (41) of the teachers indicated that their class size for practicals was between ten and twenty, while 17.9 percent (12) indicated that they had classes between 20 - 30 for practicals. Only 13.4 percent (10) had practicals with less than 10 students.

Almost 63 percent (44) of the teachers did not have a budget for their practicals, while 34.2 percent (24) worked with a budget. Table 9 shows how the budgets were supplemented. It indicates that pupils help supplement the budget by 52.9 percent. Pupils usually bring ingredients for foods lab. Fundraising is the next largest supplemener. Teachers and students usually sell food items from the foods lab to raise funds.

Table 9
Sources Used To Supplement Budget.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils</td>
<td>37</td>
<td>52.9</td>
</tr>
<tr>
<td>Teacher</td>
<td>10</td>
<td>14.3</td>
</tr>
<tr>
<td>Fundraising</td>
<td>21</td>
<td>30.0</td>
</tr>
<tr>
<td>Adequate Budget</td>
<td>2</td>
<td>2.8</td>
</tr>
</tbody>
</table>

|                | 70        | 100.0      |
Opinions Regarding Importance of Objectives and Adequacy of Syllabus Content

Research Question 2

What are home economics teachers' opinions of the importance of the objectives, and the adequacy of the syllabus content in meeting the syllabus objectives?

Using their experience in teaching the CXC food and nutrition syllabus, the teachers were asked to rate each of the 17 objectives as to their importance, and adequacy of the syllabus content in meeting these objectives. The rating scale for both importance and adequacy ranged from 1 through 5. Numerical values for importance designated 1 as 'unimportant', 2 as 'not very important', 3 as 'no opinion', 4 as 'important', and 5 as 'very important'. For adequacy the values indicated 1 as 'inadequate', 2 as 'not very adequate', 3 as 'no opinion', 4 as 'adequate', and 5 as 'very adequate'. Table 9 summarizes the home economics teachers' opinions regarding the objectives and the adequacy of the content.
### Table 10

**Teachers' Opinions of Importance of Objectives and Adequacy of Syllabus Content, by Objective.**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food Preparation and Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Plan, prepare and serve attractive tasty nutritious meals, under</td>
<td>4.85a</td>
<td>.43a</td>
</tr>
<tr>
<td>hygienic conditions with due regard to cost and time.</td>
<td>1.33b</td>
<td>.84b</td>
</tr>
<tr>
<td>2. Plan, prepare and serve meals on a large scale basis.</td>
<td>3.79</td>
<td>1.02</td>
</tr>
<tr>
<td></td>
<td>.24</td>
<td>1.14</td>
</tr>
<tr>
<td>3. Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.</td>
<td>4.44</td>
<td>.86</td>
</tr>
<tr>
<td></td>
<td>.78</td>
<td>1.09</td>
</tr>
<tr>
<td>4. Demonstrate an attitude of cooperation while performing tasks related to food preparation and service.</td>
<td>4.31</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>.69</td>
<td>1.13</td>
</tr>
<tr>
<td>5. Explain the scientific principles related to the selection, preparation, preservation and storage of food.</td>
<td>4.58</td>
<td>.79</td>
</tr>
<tr>
<td></td>
<td>1.06</td>
<td>.94</td>
</tr>
<tr>
<td>6. Identify the factors which influence the social and cultural significance of food.</td>
<td>4.14</td>
<td>.89</td>
</tr>
<tr>
<td></td>
<td>.44</td>
<td>1.25</td>
</tr>
<tr>
<td>7. Acquire and practice social customs related to food preparation and service.</td>
<td>4.06</td>
<td>.98</td>
</tr>
<tr>
<td></td>
<td>.63</td>
<td>1.11</td>
</tr>
</tbody>
</table>

*a = importance mean and standard deviation  
*b = adequacy mean and standard deviation*
<table>
<thead>
<tr>
<th>Objectives</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Choose, use and care for facilities and services related to food preparation and service.</td>
<td>4.44</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>.97</td>
<td>.99</td>
</tr>
<tr>
<td>9. Discriminate in the selection of consumer goods and services</td>
<td>4.13</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>.55</td>
<td>1.18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.30</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>.74</td>
<td>1.07</td>
</tr>
<tr>
<td>1a Identify the general principles of nutrition.</td>
<td>4.77</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>1.36</td>
<td>.85</td>
</tr>
<tr>
<td>1b Explain the scientific principles on which nutrition is based.</td>
<td>4.21</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>.79</td>
<td>1.09</td>
</tr>
<tr>
<td>2. Define the factors which influence the nutritional status of individuals and groups.</td>
<td>4.50</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>.98</td>
</tr>
<tr>
<td>3. Analyze the nutritive value of dishes of the cultural groups within society.</td>
<td>4.10</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>.28</td>
<td>1.24</td>
</tr>
<tr>
<td>4. Plan meals to meet nutritional needs of different groups.</td>
<td>4.70</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>1.28</td>
<td>.93</td>
</tr>
<tr>
<td>5. Compare and contrast the relationship between diet and well being.</td>
<td>4.41</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>.76</td>
<td>.95</td>
</tr>
<tr>
<td>6. Examine the nutritional problems of the community and the Caribbean region, and identify possible solutions.</td>
<td>4.35</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>.52</td>
<td>1.14</td>
</tr>
<tr>
<td>7. Analyze critically and assess food and nutrition information.</td>
<td>3.99</td>
<td>1.02</td>
</tr>
<tr>
<td></td>
<td>.17</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.38</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>.77</td>
<td>1.05</td>
</tr>
</tbody>
</table>
The data in Table 10 indicates that the respondents rated all the objectives in both food preparation and service and nutrition, as being important. The range was (4.85-3.79). However, the content was considered inadequate, with a range of .79-1.36. The objective of analyzing critically and assessing food and nutrition information (No.7 nutrition) was considered the most inadequately provided for in the syllabus content (.17) Planning, preparing and serving meals on a large scale basis, (No.2) was also inadequately provided for in the syllabus content (.24). Since teachers consider the objectives to be important, it is an indication that there is an overall increase in commitment to teaching as a profession as teachers realize that their work is important (McCracken, & Etuk, 1985). The overall mean for food preparation and service was 4.30 (importance and .74 (adequacy). For nutrition, the overall mean was 4.38 (importance) and .77 (adequacy).

Research Question No.3

What are home economics teachers opinions of the amount of time spent on each objective?

The teachers were asked to indicate the amount of time in hours spent on each objective. This was compared to the importance of the objectives. Table 11 indicates that although the objectives were considered important, there was a general consensus on spending 3 hours or more on each objective. The range was (2.98 - 4.05 hours). The overall mean for importance was 4.4 and time 3.68 hours.
Table 11.

Teachers' Opinions On The Importance And The Amount Of Time Spent On Each Objective.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Plan, prepare and serve attractive, tasty nutritious meals under hygienic conditions with due regard to cost and time.</td>
<td>4.85a</td>
<td>.43a</td>
</tr>
<tr>
<td>2  Plan prepare and serve meals on a large scale basis.</td>
<td>3.70</td>
<td>1.02</td>
</tr>
<tr>
<td>3  Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.</td>
<td>4.44</td>
<td>.86</td>
</tr>
<tr>
<td>4  Demonstrate an attitude of cooperation while performing tasks related to food preparation and service.</td>
<td>4.31</td>
<td>.78</td>
</tr>
<tr>
<td>5  Explain the scientific principles related to the selection, preparation preservation and storage of food.</td>
<td>4.58</td>
<td>.79</td>
</tr>
<tr>
<td>6  Identify the factors which influence the social and cultural significance of food.</td>
<td>4.14</td>
<td>.89</td>
</tr>
<tr>
<td>7  Acquire and practice social customs related to food preparation and service.</td>
<td>4.06</td>
<td>.98</td>
</tr>
<tr>
<td>8  Choose use and care for facilities and services related to food preparation and service.</td>
<td>4.44</td>
<td>.76</td>
</tr>
<tr>
<td>9  Discriminate in the selection of consumer goods and services.</td>
<td>4.13</td>
<td>1.06</td>
</tr>
</tbody>
</table>

a = importance mean and standard deviation  
b = time mean and standard deviation
Table 11 (Continued)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. Identify the general principles of nutrition.</td>
<td>4.77</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>3.65</td>
<td>1.28</td>
</tr>
<tr>
<td>1b. Explain the scientific principles on which nutrition is based.</td>
<td>4.21</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>3.25</td>
<td>1.28</td>
</tr>
<tr>
<td>2. Define the factors which influence the nutritional status of individuals.</td>
<td>4.50</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>3.32</td>
<td>1.28</td>
</tr>
<tr>
<td>3. Analyze the nutritive value of dishes of the cultural groups of the society.</td>
<td>4.10</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>2.97</td>
<td>1.22</td>
</tr>
<tr>
<td>4. Plan meals to meet nutritional needs of different groups.</td>
<td>4.70</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>3.95</td>
<td>1.15</td>
</tr>
<tr>
<td>5. Compare and contrast the relationship between diet and well being.</td>
<td>4.41</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>3.37</td>
<td>1.13</td>
</tr>
<tr>
<td>6. Examine the nutritional problems of the community and the Caribbean region, and identify possible solutions.</td>
<td>4.35</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>3.40</td>
<td>1.30</td>
</tr>
<tr>
<td>7. Analyze critically and assess food and nutrition information.</td>
<td>3.99</td>
<td>1.02</td>
</tr>
<tr>
<td></td>
<td>2.98</td>
<td>1.29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.34</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>3.68</td>
<td>1.22</td>
</tr>
</tbody>
</table>

a = importance mean and standard deviation  
b = time mean and standard deviation

Research Question 4.

What are home economics teachers opinions of the statements of the school based assessment component.

Teachers were asked to rate the statements on a five
point scale of SA (strongly agree) 5, A (agree) 4, U (undecided) 3, D (disagree) 2, SD (strongly disagree) 1. The statements were grouped under the 8 headings in Table 14

Table 12.

**School Based Assessment Component And Questions.**

<table>
<thead>
<tr>
<th>SBA components</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects.</td>
<td>8, 12, 21</td>
</tr>
<tr>
<td>Written Assignments.</td>
<td>10, 17, 20, 22</td>
</tr>
<tr>
<td>Setting Written Assignments.</td>
<td>6, 9, 13, 25, 27</td>
</tr>
<tr>
<td>Marking course work.</td>
<td>2, 4, 19, 30, 11</td>
</tr>
<tr>
<td>Standardization.</td>
<td>5, 14, 29</td>
</tr>
<tr>
<td>Recording course work.</td>
<td>15, 23, 24</td>
</tr>
<tr>
<td>Moderation by CXC.</td>
<td>3, 16, 26, 28</td>
</tr>
<tr>
<td>Meeting Deadline dates.</td>
<td>1, 7, 18</td>
</tr>
</tbody>
</table>

Table 13 indicates teachers responses on the SBA.
Table 13
Teachers' Opinions Regarding The School Based Assessment Component.

<table>
<thead>
<tr>
<th>SBA Component</th>
<th>Mean</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects</td>
<td>3.33</td>
<td>3.00</td>
<td>.68</td>
</tr>
<tr>
<td>Written Assignments</td>
<td>3.15</td>
<td>3.00</td>
<td>.52</td>
</tr>
<tr>
<td>Setting Written Assignments</td>
<td>2.79</td>
<td>3.20</td>
<td>.56</td>
</tr>
<tr>
<td>Marking course work</td>
<td>3.10</td>
<td>3.20</td>
<td>.37</td>
</tr>
<tr>
<td>Standardization</td>
<td>3.59</td>
<td>3.33</td>
<td>.61</td>
</tr>
<tr>
<td>Recording Course work</td>
<td>3.25</td>
<td>2.66</td>
<td>.57</td>
</tr>
<tr>
<td>Moderation by CXC</td>
<td>3.12</td>
<td>3.00</td>
<td>.62</td>
</tr>
<tr>
<td>Meeting Deadline dates</td>
<td>3.27</td>
<td>3.33</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Table 13 indicates that teachers were mainly undecided about the statements in the SBA. There was slightly more variation in the area of meeting deadline dates.

Research Question No. 5
What areas in the food and nutrition syllabus need improvement?

This question will be answered in 2 ways. (1) By using the Borich Needs Assessment Model, and (2) by summarizing teachers' responses to the last two questions on the questionnaire. Teachers were asked to (1) state their general comments about
the food and nutrition syllabus that might help in its evaluation and (11) give specific directions for improving the syllabus.

As indicated in Chapter III, Borich suggested that the needs assessment model was essentially a self evaluative procedure which relied on the judgements of teachers about their own performance, and when asked explicitly to do so, teachers can make objective judgements about their performance. Therefore the model was used to determine the improvement needs of the syllabus, based on the teachers' judgements of the importance and adequacy of the syllabus. Items within a domain which have the highest discrepancy score should be given first priority, and subsequently be translated into program improvement objectives.

Table 14 summarizes the ratings of home economics teachers regarding their opinions of the discrepancies between importance and adequacy of the syllabus objectives. These are presented in order of rank based on the results from the Borich scale. The interpretations of the scale follows in Table 15.
### Table 14

**Discrepancy Scores Of Importance And Adequacy Of Syllabus Objectives**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>X</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analyze the nutritive value of dishes of the cultural groups of the society.</td>
<td>8.37</td>
<td>(1)</td>
</tr>
<tr>
<td>2. Analyze critically and assess food and nutrition information.</td>
<td>4.04</td>
<td>(2)</td>
</tr>
<tr>
<td>3. Examine the nutritional problems of the community and the Caribbean region, and identify possible solutions.</td>
<td>3.65</td>
<td>(3)</td>
</tr>
<tr>
<td>4. Identify the factors which influence the social and cultural significance of food.</td>
<td>2.94</td>
<td>(4)</td>
</tr>
<tr>
<td>5. Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.</td>
<td>2.76</td>
<td>(5)</td>
</tr>
<tr>
<td>6. Compare and contrast the relationship between diet and well being.</td>
<td>2.73</td>
<td>(6)</td>
</tr>
<tr>
<td>7. Demonstrate an attitude of cooperation while performing tasks related to food preparation and service.</td>
<td>2.61</td>
<td>(7)</td>
</tr>
<tr>
<td>8. Plan, prepare and serve attractive, tasty nutritious meals under hygienic conditions with due regard to cost and time.</td>
<td>2.54</td>
<td>(8)</td>
</tr>
<tr>
<td>9. Discriminate in the selection of consumer goods and services.</td>
<td>2.46</td>
<td>(9)</td>
</tr>
<tr>
<td>10. Plan prepare and serve meals on a large scale basis.</td>
<td>2.44</td>
<td>(10)</td>
</tr>
</tbody>
</table>
Table 14 (Continued)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Explain the scientific principles related to the selection, preparation</td>
<td>2.29</td>
<td>(11)</td>
</tr>
<tr>
<td>preservation and storage of food.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Choose use and care for facilities and services related to food</td>
<td>2.15</td>
<td>(12)</td>
</tr>
<tr>
<td>preparation and service.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Define the factors which influence the nutritional status of</td>
<td>2.04</td>
<td>(13)</td>
</tr>
<tr>
<td>individuals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Plan meals to meet nutritional needs of different groups.</td>
<td>1.91</td>
<td>(14)</td>
</tr>
<tr>
<td>15. Acquire and practice social customs related to food preparation</td>
<td>1.76</td>
<td>(15)</td>
</tr>
<tr>
<td>and service.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Identify the general principles of nutrition.</td>
<td>1.88</td>
<td>(16)</td>
</tr>
<tr>
<td>17. Explain the scientific principles on which nutrition is based.</td>
<td>1.74</td>
<td>(17)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15
Interpretation Of Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Descriptors Importance</th>
<th>Adequacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 - 1.49</td>
<td>unimportant</td>
<td>not adequate</td>
</tr>
<tr>
<td>1.5 - 1.99</td>
<td>negligible importance</td>
<td>negligible adequacy</td>
</tr>
<tr>
<td>2.0 - 2.49</td>
<td>not very important</td>
<td>partial adequacy</td>
</tr>
<tr>
<td>2.5 - 2.99</td>
<td>low importance</td>
<td>low adequacy</td>
</tr>
<tr>
<td>3.0 - 3.49</td>
<td>important</td>
<td>adequate</td>
</tr>
<tr>
<td>3.5 - 3.99</td>
<td>high importance</td>
<td>high adequacy</td>
</tr>
<tr>
<td>4.0 -</td>
<td>very important</td>
<td>complete adequacy</td>
</tr>
</tbody>
</table>
Home economics teachers perceived the greatest degree of discrepancy to be in objective (3) nutrition "analyze the nutritive value of dishes of the cultural groups within the society" (8.37). The next largest discrepancy occurred between the perceived importance for "analyzing critically and assessing food and nutrition information (4.04). The next discrepancy occurred in examining the nutritional problems of the community and the Caribbean region, and identify possible causes", and the perceived adequacy (3.65). Finally, the subjects perceived the discrepancy score for objective 4, "identify the factors which influence the social and cultural significance of food to be in need of review, as well as objective 5, which is to demonstrate the aesthetic value of food preparation, with specific emphasis on indigenous foods.

The mean for the food preparation and service domain was 2.25, while the mean for the nutrition domain was 2.89.

The following is the list of objectives to be given due consideration in improving the syllabus.

1. Analyzing the nutritive value of dishes of the cultural groups within the society (8.37)
2. Analyze critically and assess food and nutrition information (4.04)
3. Examine the nutritional problems of the community and the Caribbean region, and identify possible causes (3.65).
4. Identify factors which influence the social and cultural significance of food.
5. Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.

**Teachers Suggestions For Improving The Syllabus**

A summary of the teachers responses indicated a general trend of the need for specific guidelines for dealing with the objectives and the content. Teachers felt that the syllabus is too wide with too brief a content. Although brief, the content is too concentrated to cover over a two year period. Teachers also need more assistance in the area of references, workshops and general guidance when dealing with the syllabus.

The syllabus could be improved by being more specific, with more guidelines for teachers.

**Research Question 6**

Which independent variables of (highest level of education attained, years of teaching experience, island, adequacy of equipment, number of pupils, and budget for practicals) are predictors of the teachers opinions of the importance of the objectives and adequacy of the syllabus content.

The forward step-wise multiple regression statistical analysis was used for this research question. It was appropriate because of the nature of the data, small population size, research design, and missing data (some teachers did not respond to all questions). Also when using multiple regression there is no need to worry about such missing data.
In using forward stepwise regression, only significantly correlated variables are entered into the analysis. This procedure is appropriate when factors are correlated with the dependent variable. Furthermore, this forward stepwise procedure was to help identify variables significantly contributing to teachers opinions of the importance of the objectives and adequacy of the syllabus content in meeting the objectives.

The objectives were divided into 2 sections. (1) Food preparation and service (importance and adequacy) and (2) Nutrition (importance and adequacy). Table 16 shows the forward stepwise regression of variables related to home economics teachers opinions regarding the importance of the nutrition objectives. The multiple regression equation used for this analysis was

\[ y' = a + b_k(x) + b_k(x_1) + b_k(x_2) + b_k(x_3) \]

\( a \) = intercept; the estimated value of \( y' \) when all independent variables are equal to 0

\( b_k \) = partial regression coefficients

\( x \) = independent variable

All independent variables which correlated significantly at .15 level or higher with the dependent variable were included in the stepwise regression analysis. This included teachers from Grenada, Dominica, teachers with teaching certificates or short courses, those with 20 - 30 pupils for practicals, and those with inadequate equipment for practicals. Of the five
variables in the regression, only one (Grenada) was significant (p<0.05). These variables and their multiple regression correlation coefficient account for 30 percent of the proportion of the variance explained in the dependent variable, importance of nutrition objectives.

Table 16.
Forward Stepwise Regression Of Variables Related To Teachers Opinions Of The Importance Of The Nutrition Objectives

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Bvalue</th>
<th>R²</th>
<th>R² change</th>
<th>fvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grenada</td>
<td>0.291</td>
<td>0.106</td>
<td>0.106</td>
<td>5.458</td>
</tr>
<tr>
<td>Teaching certificate</td>
<td>-0.350</td>
<td>0.059</td>
<td>0.165</td>
<td>3.215</td>
</tr>
<tr>
<td>20 - 30 pupils for</td>
<td>-0.297</td>
<td>0.053</td>
<td>0.218</td>
<td>2.999</td>
</tr>
<tr>
<td>practicals</td>
<td>-0.432</td>
<td>0.043</td>
<td>0.262</td>
<td>2.520</td>
</tr>
<tr>
<td>Dominica</td>
<td>-0.206</td>
<td>0.038</td>
<td>0.300</td>
<td>2.299</td>
</tr>
</tbody>
</table>

The multiple regression equation with the respective calculations (a and bk) is as follows;

\[ y' = 4.313 + 0.291 (x_1) - 0.350 (x_2) - 0.297 (x_3) - 0.432 (x_4) + 0.206 (x_5). \]

Inadequate equipment was the best predictor of importance of nutrition objectives, accounting for 30 percent of the variance. Teachers from Dominica was the second best predictor, accounting for 26 percent of the variance. Third,
teachers with 20 - 30 pupils for practicals accounted for approximately 22 percent of the variance. Teachers with teaching certificates accounted for 17 percent, and finally Grenadian teachers contributed 10 percent of the variance in the dependent variable of importance of nutrition objectives.

Table 17
Forward Stepwise Regression Of Variables Related To Teachers Opinions Of The Adequacy Of The Syllabus Content For Nutrition Objectives.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Bvalue</th>
<th>R²</th>
<th>R² change</th>
<th>Fvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 years teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>experience</td>
<td>-0.565</td>
<td>0.165</td>
<td>0.165</td>
<td>8.521</td>
</tr>
<tr>
<td>Grenada</td>
<td>0.884</td>
<td>0.075</td>
<td>0.241</td>
<td>4.186</td>
</tr>
<tr>
<td>St. vincent</td>
<td>0.442</td>
<td>0.078</td>
<td>0.319</td>
<td>4.704</td>
</tr>
<tr>
<td>CXC exam</td>
<td>0.881</td>
<td>0.055</td>
<td>0.374</td>
<td>3.543</td>
</tr>
</tbody>
</table>

All independent variables which correlated significantly at .15 level or higher with the dependent variable were included in the stepwise regression. These included 11+ years teaching experience, teachers from Grenada and St. vincent, and those teachers who had themselves sat the CXC examinations. Of the four variables entered into this analysis, three were significant at the .05 level. These variables and their multiple regression coefficients accounted
for 37 percent of the variance in the dependent variable of teachers' opinions of the adequacy of the nutrition syllabus content. The multiple regression coefficient with the respective calculations (a and bk) is as follows:

\[ y' = 3.866 - 0.565 (X_1) + 0.884 (X_2) + 0.442 (X_3) + 0.881 (X_4) \]

Table 17 indicates that teachers who had themselves sat the CXC exams was the best predictor of teachers' opinions of the adequacy of the syllabus content for nutrition. This accounted for 37 percent of the variance. Teachers from St. Vincent and Grenada each accounted for 31 and 24 percent of the variance respectively. Finally, teachers who had taught for 11+ years accounted for 16 percent of the variance in the dependent variable.

The shared variance between the predictor variables and the criterion variables were very low for the importance and adequacy of the food preparation and service objectives and content.

**Research Question 7**

Which independent variables of (highest level of education attained, years of teaching experience, island, number of pupils, budget, and adequacy of equipment for practicals) are predictors of the dependent variable, teachers opinions of the SBA.

A stepwise multiple regression was completed to determine a regression equation for each area of the SBA. All the independent variables were entered into the regression for
each area of the SBA. Tables 18 - 20 indicate the areas of the SBA which exhibited some variance.

Table 18

*Forward Stepwise Regression Of Variables Related To Teachers Opinions Of The SBA.*

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Bvalue</th>
<th>R²</th>
<th>R² change</th>
<th>Fvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standardization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CXC teaching 11+ years</td>
<td>0.047</td>
<td>0.084</td>
<td>0.084</td>
<td>4.357</td>
</tr>
<tr>
<td>30+ for practicals</td>
<td>-0.718</td>
<td>0.766</td>
<td>0.161</td>
<td>4.200</td>
</tr>
<tr>
<td>First degree</td>
<td>0.313</td>
<td>0.687</td>
<td>0.230</td>
<td>4.018</td>
</tr>
<tr>
<td>20 - 30 for practicals</td>
<td>-0.306</td>
<td>0.411</td>
<td>0.271</td>
<td>2.482</td>
</tr>
<tr>
<td>Anguilla</td>
<td>0.537</td>
<td>0.363</td>
<td>0.307</td>
<td>2.252</td>
</tr>
</tbody>
</table>

The multiple regression equation with the respective calculations (a and bk) is as follows:

\[ y' = 3.244 + 0.047 \times x_1 - 0.718 \times x_2 + 0.313 \times x_3 - 0.306 \times x_4 + 0.537 \times x_5 \]

Table 18 indicates that teachers from Anguilla was the best predictor of standardization of the SBA, accounting for 30 percent of the variance. This was followed closely by teachers with 20 - 30 pupils for practicals (27 percent) and those with a first degree (23 percent). Thirty or more pupils for practicals accounted for 16 percent of the variance, and finally those who have been teaching CXC for 11+ years.
accounted for only 8 percent of the variance in the standardization of the SBA. Of the five variables entered, three were significant ($p < 0.05$). These variables and their multiple regression coefficients accounted for 30 percent of the variance.

Recording course work was the next area of the SBA where the independent variables and their multiple regressions exhibited 23 percent of the variance. Table 19 displays these variables and their multiple regression coefficients.

Table 19

Forward Stepwise Regression Of Variables Related To Teachers Opinions Of The SBA.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Bvalue</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
<th>Fvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording course work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 + pupils for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>practicals</td>
<td>0.791</td>
<td>0.108</td>
<td>0.108</td>
<td>5.817</td>
</tr>
<tr>
<td>Antigua</td>
<td>-0.747</td>
<td>0.748</td>
<td>0.182</td>
<td>4.303</td>
</tr>
<tr>
<td>No budget for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>practicals</td>
<td>0.288</td>
<td>0.551</td>
<td>0.238</td>
<td>3.325</td>
</tr>
</tbody>
</table>

$y' = 3.125 - 0.108(x_1) - 0.748 (x_2) + 0.551 (x_3)$

No budget for practicals was the best indicator of recording course work on SBA, accounting for 23 percent of the variance. Antigua teachers accounted for 18 percent of the
variance, while teachers with 30+ pupils for practicals accounted for 10 percent of the variance. Of the three variables in this regression, two were significant at the 0.5 level.

Moderation by CXC was the next section of the SBA which exhibited some level of variance. Table 20 shows this regression.

Table 20

**Forward Stepwise Regression Of Variables Related To Teachers Opinions Of The SBA.**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Bvalue</th>
<th>R²</th>
<th>R² change</th>
<th>Fvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moderation By CXC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 30 pupils for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>practicals</td>
<td>-0.593</td>
<td>0.156</td>
<td>0.156</td>
<td>7.999</td>
</tr>
<tr>
<td>No budget for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>practicals</td>
<td>-0.242</td>
<td>0.082</td>
<td>0.239</td>
<td>4.563</td>
</tr>
<tr>
<td>10 years teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>experience</td>
<td>-0.306</td>
<td>0.052</td>
<td>0.291</td>
<td>3.008</td>
</tr>
<tr>
<td>Grenada</td>
<td>0.503</td>
<td>0.444</td>
<td>0.335</td>
<td>2.675</td>
</tr>
<tr>
<td>Teaching CXC 11yrs.</td>
<td>0.078</td>
<td>0.370</td>
<td>0.372</td>
<td>2.297</td>
</tr>
</tbody>
</table>

\[ y' = 2.843 - 0.593 (x_1) - 0.242 (x_2) - 0.306 (x_3) + 0.503 (x_4) + 0.078 (x_5) \]
Teachers who have themselves sat CXC exams was the best predictor of the moderation by CXC. They were more familiar with the process as they were previous students themselves. This variable contributed 37 percent of the variance. Teachers from Grenada accounted for 33 percent of the variance, while those with no budget, and 20 - 30 pupils for practicals accounted for 23 percent and 15 percent respectively. Of the five variables entered into this regression, only two were significant ($P<0.05$). These variables and their multiple regression coefficients accounted for 37 percent of the variance explained in the dependent variable of moderation by CXC on SBA.

The overall total score of predictor variables on the SBA was low ($R^2 0.09$). The only variable which emerged was St. Vincent and it was not significant ($P<0.05$).

**Discussion**

The findings show that OECS home economics teachers were in complete agreement about the importance of the seventeen syllabus objectives. However these teachers did not find the syllabus content adequate in meeting these objectives. An examination of individual objectives revealed that objective (2) (plan, prepare and serve meals on a large scale basis), and objective (17) (analyze critically and assess food and nutrition information) were the least adequately provided for in the syllabus content. These findings indicate a need for reviewing the syllabus content to ensure that it is adequate
to help teachers. This is of special significance in the case of objective 17, since current trends in home economics education emphasize critical thinking skills with metacognition, and more recently developed teaching strategies to deal with helping students analyze and criticize. (Joyce & Weil, 1986).

OECS teachers spend 3-4 hours per objective. This could be a reflection of the inadequacy of the syllabus content, since these teachers feel that the objectives are important. This factor could also be due to local school time table planners who allocate hours for subjects.

The findings in this study regarding the uncertainty of teachers opinions regarding the school based assessment component was also found in Forsythe (1984). This study was carried out two years after the inception of CXC, and more than five years later the results are the same. Teachers may have found it some what difficult to answer these questions. The phraseology of these statements could have been threatening to them, since it seems as if they were being evaluated. The inadequacy of the content could also contribute to this uncertainty since teachers are unsure of the amount of content required to achieve the objectives. They also need to understand the guidelines in order to know what is required of them. At the same time they are preoccupied with large classes, inadequate equipment, and budget for practicals, along with deadline dates.
Based on the findings of this research, the results of the multiple regression indicate a low correlation between importance of the nutrition objectives and the independent variables of Grenada teachers, teachers with teaching certificates, 20 - 30 pupils for practicals, teachers from Dominica, and those teachers with inadequate equipment. If teachers from Grenada and Dominica were predictors of importance of nutrition objectives, questions will be raised as to why only these two islands featured. Specifically, what about those teachers made them different. However further research is needed to clarify the nature of this relationship since correlational studies do not establish causation.

Those teachers with 20 - 30 pupils for practicals and inadequate equipment were predictors in the importance of the nutrition objectives. This is a large number of students to have for practicals, especially with insufficient equipment.

The teachers from Grenada again featured in the list of predictor variables related to the adequacy of the syllabus content for nutrition objectives. This was coupled with the teachers from St. Vincent. Since St Vincent was the only variable which emerged in the total scores, it too, along with Grenada should be investigated in an effort to discover what made them different.

The findings regarding the general comments about the food and nutrition syllabus reveals a need for teachers to be given guidance through workshops. These workshops should
stress exactly what is required by teachers, and these guidelines should be thoroughly explained. In keeping with the current trends, CXC should integrate new/different models of teaching which stress critical thinking skills which will help students learn how to learn, and in turn help teachers with implementation skills.
CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this research study was to assess the CXC food and nutrition syllabus in the CECS islands. The information obtained from this study will be valuable to CXC decision makers in initiating, revising, and improving the quality and use of the CXC materials by the OECS home economics teachers. The analysis will be useful for assessing the teachers needs for teaching CXC, and for planning workshops and other inservice training programs. The data was collected from the eight CECS islands. A descriptive correlational approach was used in this study.

Characteristics of Home Economics Teachers

The data producing population consisted of 70 home economics teachers. The majority of respondents came from St. Lucia (17), St. Vincent (13), and Grenada (17), while the others came from Dominica (7), Antiqua (7), Tortola (3), Anguilla (2), and Montserrat (4). A large number had a diploma in home economics (33), 12 had a degree, while 14 had either passed CXC or GCE examinations. There were 9 with teaching certifications or had attended short courses in home economics. Forty-five of the 70 had general teaching
experience of 11 years or more, while 48 had 1-5 years CXC teaching experience.

Opinions Regarding the Importance of the Objectives and the Adequacy of the Syllabus Content on Each Objective, and the Amount of Time Spent on Each Objective

Home economics teachers reported their opinions regarding the importance of objectives and adequacy of syllabus content based on values from 1 (unimportant/inadequate) to 5 (very important/very adequate). Classroom or clock hours were rated 1 - 5. Means and standard deviation values on importance and adequacy were determined by objective, and by subheadings of food preparation and service, and nutrition. Mean values of 3.0 and above were considered as indicating importance/adequacy, and mean values below 3.0 were considered as indicating unimportance/inadequacy. OECS home economics teachers indicated that all 17 objectives were important, but were inadequately provided for in the syllabus content. The amount of time spent on each objective was in the range of 3 - 4 hours.

Opinions Regarding the School Based Assessment Component

OECS home economics teachers reported their opinions regarding the statements in the SBA based on values from 1 (strongly disagree) to 5 (strongly agree), with an undecided category of 3. Means, modes, and standard deviation values
were determined by subgroups. Mean values of 3.5 and above indicated agreement of statements, while mean values below 3.5 indicated disagreement. A mean value of 3 implied undecided about the statements. Overall the teachers were undecided about the statements on the SBA.

Identification of Program Improvement Needs

OECS home economics teachers rated the importance and adequacy of the syllabus objectives and content respectively. Discrepancy scores which are products of the differences between importance and adequacy ratings by item, multiplied by the mean importance rating of each item were calculated. The food preparation and service, and the nutrition objectives discrepancy scores as separate domains were obtained by finding the mean of all the item discrepancy scores in that domain.

High positive discrepancy scores were used as guides in identifying priority areas for program improvement. Using the discrepancy scores, the following objectives of the CXC food and nutrition objectives, in priority order were identified as needing improvement. They are

1. Analyze the nutritive value of dishes of the cultural groups within the society (8.37).
2. Analyze critically and assess food and nutrition information (4.04).
3. Examine the nutritional problems of the community and the
Caribbean region, and identify possible solutions (3.65).

4. Identify factors which influence the social and cultural significance of food.

5. Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.

**Independent Variables of Highest Level of Education Attained, Years of Teaching Experience, Island, Number of Pupils, Adequacy of Equipment, and Budget for Practicals, As Predictors of the Dependent Variable of Teachers Opinions of the Syllabus.**

The relationship was ascertained using forward stepwise multiple regression, in an effort to determine which independent variables contributed to teachers opinions. It was discovered that teachers who had themselves passed the CXC examinations, those with 20 - 30 pupils for practicals, those with inadequate equipment, and those with teaching certificates contributed to the variance in the importance of the syllabus objectives. Grenada and Dominica teachers also contributed significantly.

Grenada and St. Vincent teachers also contributed to the adequacy of the syllabus content. Those teachers who have taught for more than 11 years, and those who have themselves passed the CXC examinations also contributed. Overall the relationship was low.

As in the previous relationship of importance and
adequacy of syllabus objectives and content, the teachers from Grenada were predictors on the dependent variable of the SBA component. Also noticeable were teachers with 20+ pupils for practicals as well as those who had themselves passed the CXC examinations, and had 5 years CXC teaching experience. However, the overall relationship was low.

CONCLUSIONS

The following conclusions are based on the findings of this study.

1. A large number of teachers from the OECS islands are undertrained, but have considerable teaching experience.

2. Home economics practical classes are given low priority, based upon the fact that the majority of teachers have no budgets and inadequate equipment.

3. While OECS home economics teachers perceive the syllabus objectives as being important, they feel that the syllabus content is inadequate in meeting these objectives.

4. The extent of uncertainty displayed in the SBA statements by home economics teachers is significant.

5. Standardization, recording course work, and moderation by CXC are the three areas of the SBA which need special attention.

6. The syllabus content is inadequate in the area of critical thinking and analysis skills, as they relate to analysis of food and nutrition information.
7. The syllabus is too general and lacks specific guidelines for teachers.

8. The best variables which explain the variance in the CXC food and nutrition syllabus objectives are teachers from Grenada, and those with inadequate equipment.

9. The best variables which explain the variance in the adequacy of content are teachers from Grenada and St. Vincent and those who themselves have passed the CXC examination.

10. The best variables which explain the variance in the SBA are teachers from Grenada, those who have taught for 11 years and those with no budget for practicals.

11. Teachers from Grenada perceive the syllabus more positively than teachers on other islands.

IMPLICATIONS

The findings of this study bear directly on those who are responsible for its planning and implementation. The findings in this study indicate that:

1. More workshops are needed on the use of the syllabus and the SBA for all practicing and prospective teachers.

2. There is a need for more teachers to be involved in revising and developing curricula and resource material to support their teaching.

3. More publications are needed to help teachers with ideas on using the syllabus and the SBA, especially in the
areas of standardization, recording course work, and moderation.

4. The uncertainties expressed by teachers on the SBA necessities that CXC and local school officials take a closer look at the program implementation in schools and offer suitable help in that area. Since the teachers feel that the objectives are important, the level of participation should be high.

6. Local government officials need to provide more funds for practicals.

7. The content area of the food and nutrition syllabus need to be revised, and offer more guidance, possibly in the area of unit plans or block plans.

RECOMMENDATIONS

The following recommendations are based on the findings of this study.

1. Specific studies should be conducted on the syllabus content to provide more information for teachers.

2. A separate study should be conducted on the SBA to highlight problems which may be associated with it.

3. A follow up study be conducted after the teacher workshops have taken place.

4. A separate study should be conducted on Grenada and St. Vincent to ascertain their difference.

5. A similar study should be conducted with the other islands of the Caribbean and compare the results with
those in this study.

6. Further research is needed on teacher implementation of the syllabus to determine specific problems which may be associated with lack of equipment and budget and a large number of students for practicals.
REFERENCES

Abdelgalil, Mohamed Nabil. (1988). Curriculum evaluation by assessing the degree of accordance between the designers intentions and the implementers perceptions of these intentions. The case of primary school mathematics and science curriculum in Oman. (Doctoral Dissertation, State University of New York at Buffalo). Dissertation Abstracts International 49 03A.


APPENDIX A

CXC Food and Nutrition Syllabus
### A Food Preparation and Service

<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. plan, prepare and serve attractive, tasty, nutritious meals under hygienic conditions with due regard to time and cost;</td>
<td>Micro-biological aspects of food handling: basic food preparation terms and principles; revision of food preparation methods and introduction of more advanced methods; basic knowledge and skills preparing and serving meals for individuals and families; preparing and serving dishes and their accompaniments; costing, time and motion factors personal hygiene and hygiene surroundings.</td>
</tr>
<tr>
<td>2. plan, prepare and serve meals on a large-scale basis;</td>
<td>Basic knowledge and skills involved in large-scale food preparation.</td>
</tr>
<tr>
<td>3. demonstrate the aesthetic</td>
<td>Aesthetic and creative</td>
</tr>
</tbody>
</table>
value of food preparation with specific emphasis on indigenous foods;

4. Demonstrate an attitude of co-operation while performing tasks related to food preparation and services; Sharing experiences and working as part of a group in such experiences and in the home or work situation.

5. Explain the scientific principles related to the selection, preparation, preservation and storage of food; The physical nature of foods: structure for e.g. meat, eggs, vegetables; chemical reaction of nutrients; effect of heat, light and other agents on food and food products; micro-organisms in food - bacteria, yeast, moulds.

6. Identify the factor which influence the social and cultural significance of Factors which influence selection and consumption of food: cultural, psychological, socio-econ, local and regional customs and habits; local folklore related to aspects of food preparation: colour combinations, texture, garnishes and decorations; presentation; nutritive value.
7. Acquire and practise
acceptable social customs
related to food service and
hospitality;

8. choose, use and care for
facilities and services
related to food preparation
and service;

9. discriminate in the
selection of consumer goods
and services.

misconceptions concerning
food.

Social customs:
Acceptable social behavior
Etiquette - introductions,
invitations, table manners;
television manners;
being a gracious host/hostess;
being an agreeable guest
Choice, use and care of
utensils and equipment
used in food preparation:
economy of fuel;
safety practices.

Aids to wise consumerism:
agencies concerned with
consumerism;
food selection, purchasing
and storage; how to spend
"food dollar" wisely;
factors affecting the price
of food;
factors affecting purchasing
and storage practices.
B. Nutrition

1. (a) identify the general principles of nutrition;

(b) explain the scientific principles on which nutrition is based;

Principles of Nutrition:
the need for food;
the nature of nutrients and their sources;
nutrients and their functions;
the release and utilization of nutrients.

History and development of nutrition as a science e.g.,
discovery of vitamins:
nutrition—the Twentieth Century Science.

2. define the factors which influence the nutritional status of individuals and groups;

Contributing factors:
the food supply—production and distribution; agricultural and financial policies;
customs, habits, socio-economic status; family size and composition;
lifestyle; education;
therapy; value of food based on
3. analyse the nutritive value of dishes of the cultural groups within the society;

4. plan meals to meet the nutritional needs of different groups;

5. compare and contrast the relationships between diet and well-being;

professional advice;
environmental e.g. poor sanitation.
The food value of local foods, dishes and combinations of these.
Nutrition for the life cycle:
nutrient requirements and how to meet them;
emphasis on special groups - e.g.
pregnant women and lactating mothers;
children up to 5 years.

Food and its relation to health and well-being characteristics of good health;
disorders caused by deficiencies in the diet;
disorders which may be corrected or managed by the help of proper diet;
treatment of disorders
6. examine the nutritional problems of the community and the Caribbean region, and identify possible solutions; through diet; regulation of family size to maintain and improve the quality of life.

Nutrition problems in the community e.g. protein energy malnutrition in the young, undernourished teenagers: possible solutions, e.g. education; Supplementary Feeding Programmes.

7. analyse critically and assess food and nutrition information.

Critical analysis of information on food and nutrition.

There are two examinations schemes - basic proficiency and general proficiency. Both are offered to candidates who have completed five years of secondary schooling. They may be defined as follows: The basic proficiency connotes subject activity designed to complete a secondary school course in the specific subject. It is normally aimed at the world of work. The general proficiency connotes subject activity designed to provide the foundation for further studies in the subject beyond the fifth year of secondary school.
THE FORMAT OF EXAMINATIONS

Basic Proficiency

Paper 1
An objective test consisting of approximately
(1 1/4 hours)
65 multiple choice items testing knowledge of
facts and principals and application of facts
and principles.

Paper 11
An essay paper in 2 sections.
(1 1/2 hours) Section 1. Food Preparation and Service.
Five short answer questions from
which candidates must attempt
three.

Section 2. Nutrition.
Four short answer questions from
which candidates must attempt two.

Paper 111
A practical examination based on Section 1,
(2 1/2 hours) Food Preparation and Service. For the
practical examination there will be a planning
session of 1 1/2 hours, at least 4 days prior
to the date of the examination when
candidates will be required to prepare time
plans, food and equipment lists. The
practical examination which will be conducted by a visiting examiner should be completed by the 31st May of the year of the examination.

School-based Assessment

The requirements and procedure for the School based Assessment Component will be common to basic and General Proficiency candidates.

General Proficiency

Paper 1

An objective test-consisting of approximately 65 multiple choice items testing knowledge of facts and principles and application of facts and principles.

(1 1/2 hours)

Paper 11

An essay paper in 2 sections.

(2 hours)

Section 1. Food Preparation and Service.

Five structured essay questions from which candidates must attempt three.

Section 2. Nutrition

Four structured essay questions from which candidates must attempt two.

Paper 111

A practical examination based on Section 1, Food Preparation and Service. For the practical examination there will be a planning session of 1 1/2 hours, at least 4 days prior to the date of the examination.
when candidates will be required to prepare time plans, food and equipment lists. The practical examination which will be conducted by a visiting examiner should be completed by the 31st May of the year of the examination.

School-based Assessment

The requirements and procedures for the School-based Assessment Component will be common to Basic and General proficiency candidates.

The School-based Assessment Component

1. The coursework for school-based assessment for both Basic General Proficiency will comprise written assignments, practical assignments and projects assessed and marked by the teacher.

2. Course work assignments for the FOOD AND NUTRITION examination must be selected and assessed according to the guidelines set by CXC in the document "Guidelines to Teachers on Setting and Marking Coursework".

3. For each candidate for the examination, there must be THREE assessments of coursework over the two-year period - one per term for three terms beginning in the second term of the fourth year.

4. The marks awarded must be recorded on the Coursework Record Card provided by CXC.
APPENDIX B

Correspondence
Ohio State University
Department of Home Economics Education
347 Campbell Hall
1787 Neil Avenue
Columbus, Ohio 43210

Mr. W. W. Beckles, The Director
Caribbean Examination Council
Block A. Garrison
Christ Church
Barbados, West Indies

Dear Mr. Beckles,

I have been a food and nutrition teacher in St. Lucia for the past ten years, and a marker of examinations for three years. During my work with teachers, I have heard several comments about their understanding and interpretation of food and nutrition syllabus and school based assessment, and examination procedures. In the light of these comments, I see the need to do a study of an assessment of the syllabus and the school based assessment as well as the examinations procedures.

I am now in the process of doing graduate research on that topic, and I would like your assistance. It would be invaluable if C.X.C. could make inputs that would ensure that the study is realistic with potential usefulness for C.X.C.

Please send me copies of (1) guidelines to teachers on setting and marking course work for school based assessment, and (2) other instructional material C.X.C. has issued to teachers recently relating to food and nutrition. My correspondent in Barbados is:

Mr. Clement Derrel
75 Husbands Gardens
St. James
Barbados
Telephone: 438-3580

He can be contacted for collection and for costs incurred on saleable C.X.C. material. Your help and cooperation will be greatly appreciated. Thank you for your consideration.

Sincerely,

Rita Dyer
Graduate Student, Ohio State University
February 22, 1991

Dear :  

I am currently enrolled in a Master's Degree Program in Home Economics Education at The Ohio State University. In partial fulfillment of the requirements, I am completing a thesis. The aim of my study is to assess the Caribbean Examination Council (CXC) Food and Nutrition syllabus in the Organization of Eastern Caribbean States (OECS) countries, and to make recommendation to CXC based on the findings.

At this point, I would like you to help me validate the accompanying questionnaire so that I will have them ready for distribution at the next Caribbean Home Economics Conference in Grenada on the 2nd of April 1991.

Please feel free to make corrections, inclusions, and deletions, so that the final questionnaire will elicit accurate information pertaining to the Food and Nutrition Syllabus.

I hope you will understand time constraints of my research study and return the corrected questionnaire with suggestions to Marcia Phillips, c/o Hess Oil, St. Lucia Ltd., P.O. Box 811, Castries, St. Lucia. An addressed envelope has been provided for your convenience. Thank you for your time and effort.

Respectfully yours,

Rita Dyer, Graduate Student

Dr. Sharon Redick, Advisor

Encl.
February 10, 1991

Dear Sir/Madam,

I am currently a graduate student in Home Economics Education at The Ohio State University. As part of requirements for a Masters, I am in the process of completing a thesis on the CXC food and nutrition syllabus. I need home economics teachers from the OECS islands to help me by completing a questionnaire which deals with their implementation of the syllabus.

I am requesting your permission to have my questionnaires distributed at your school. I assure you that the results of the research will be beneficial to CXC and ultimately to education in the OECS.

Rita Dyer

Graduate Student
APPENDIX C

Questionnaire
Dear Home-Economics Teacher,

I am presently enrolled in a Masters Degree Program in Home Economics Education at The Ohio State University. In partial fulfillment of the requirements, I am completing a thesis. The aim of my study is to assess the Caribbean Examinations Council (CXC) Food and Nutrition Syllabus in the Organization of Eastern Caribbean States (O.E.C.S.) countries, and to make recommendations to CXC based on the findings.

I would like you to help me collect data, by completing the accompanying questionnaire and returning it to Mr. Eugene Dyer, Sunbilt Castries, St. Lucia, West Indies, by the 30th of April 1991. He will then express it to me in Ohio. An addressed envelope has been provided for your convenience. Thank you for your cooperation.

Sincerely,

Rita Dyer, Graduate Student
Assessment of Caribbean Examination Council (CXC)  
Food & Nutrition Syllabus  
Survey Questionnaire 1991

Instructions:

Listed below are the objectives as stated in the CXC Food & Nutrition Syllabus. Please indicate your opinion regarding the level of importance of the objectives and adequacy of the syllabus content to achieving the objectives of each statement listed below. In addition please indicate the approximate number of hours spent on each objective. Please use the following scale.

| 5 | Very important | 5 | Very adequate |
| 4 | Important      | 4 | Adequate      |
| 3 | Neutral        | 3 | Neutral       |
| 2 | Not very important | 2 | Not very adequate |
| 1 | Unimportant    | 1 | Inadequate    |

Example:

<table>
<thead>
<tr>
<th>Level Of Importance</th>
<th>Adequacy of Syllabus Content</th>
<th>Number Of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

The response of 5 indicate that the respondent believes this objective to be very important, with a high level of adequacy of content in meeting this objective, and approximately five hours are spent on teaching this objective.

A. Food Preparation and Service

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Level Of Importance</th>
<th>Adequacy of Syllabus Content</th>
<th>Number Of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plan prepare and serve attractive, tasty nutritious meals under hygienic conditions with due regard to cost and time.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Plan, prepare and serve meals on a large scale basis.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Demonstrate the aesthetic value of food preparation with specific emphasis on indigenous foods.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Demonstrate an attitude of cooperation while performing tasks related to food preparation and service.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Explain the scientific principles related to the selection, preparation, preservation and storage of food.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Identify the factors which influence the social and cultural significance of food.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Acquire and practice social customs related to food preparation and service</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
8. Choose, use and care for facilities and services related to food preparation and services.  
   Level Of Adequacy of Number of  
   Importance Syllabus Content Classroom or Clock Hours  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

9. Discriminate in the selection of consumer goods and services.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

**NUTRITION**

1a Identify the general principles of nutrition.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

1b Explain the scientific principles on which nutrition is based.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

2. Define the factors which influence the nutritional status of individuals and groups.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

3. Analyze the nutritive value of dishes of the cultural groups within the society.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

4. Plan meals to meet nutritional needs of different groups.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

5. Compare and contrast the relationship between diet and well being.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

6. Examine the nutritional problems of the community and the Caribbean region, and identify possible solutions.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

7. Analyze critically and assess food and nutrition information.  
   1 2 3 4 5 1 2 3 4 5 1 2 3 4 5  

B. Below is a list of statements which are designed to determine teachers perceptions of the CXC Food and Nutrition School Based Assessment (SBA). Please circle the column at the end of each statement to indicate your beliefs/feelings about each one.

| SD | Strongly Disagree |
| D  | Disagree          |
| U  | Undecided         |
| A  | Agree             |
| SA | Strongly Agree    |

Example  
Good curriculum helps teachers be more effective.  
   SD D U A SA

1. It is easy to complete SBA in the available time.  
   SD D U A SA

2. I do not feel confident when marking pupils SBA.  
   SD D U A SA

3. SBA contributes too little to a pupils overall grade.  
   SD D U A SA

4. Marking of SBA helps to improve my evaluation abilities.  
   SD D U A SA

5. SBA is not a good method of assessing pupils.  
   SD D U A SA

6. The SBA guidelines is easy to understand.  
   SD D U A SA
7. SBA has too many deadlines.  
   SD  D  U  A  SA
8. The project work should be omitted from the syllabus.  
   SD  D  U  A  SA
9. SBA helps pupils become better organized individuals  
   SD  D  U  A  SA
10. Very few problems are associated with SBA.  
    SD  D  U  A  SA
11. It is difficult to assess pupils practical sessions.  
    SD  D  U  A  SA
12. The project work should be awarded more marks  
    SD  D  U  A  SA
13. SBA does not require too much responsibility for teachers.  
    SD  D  U  A  SA
14. SBA is better than one written final examination.  
    SD  D  U  A  SA
15. Keeping records of pupils performance for SBA is too demanding.  
    SD  D  U  A  SA
16. SBA is a good method of assessment.  
    SD  D  U  A  SA
17. The equipment required for SBA is suitable for use by pupils.  
    SD  D  U  A  SA
18. There is too much work to be done in the available time.  
    SD  D  U  A  SA
19. SBA is not difficult to mark.  
    SD  D  U  A  SA
20. Teachers derive benefit from SBA.  
    SD  D  U  A  SA
21. Pupils learn a lot from their research in the SBA.  
    SD  D  U  A  SA
22. SBA practicals require too much specialized equipment.  
    SD  D  U  A  SA
23. I need more workshops to help me with SBA implementation.  
    SD  D  U  A  SA
24. I am sufficiently trained to handle SBA.  
    SD  D  U  A  SA
25. It is very difficult to construct knowledge and application type questions.  
    SD  D  U  A  SA
26. SBA does not allow teachers the flexibility to be creative.  
    SD  D  U  A  SA
27. I do not have problems writing questions for SBA.  
    SD  D  U  A  SA
28. I am never sure whether CXC will approve of my pupils work.  
    SD  D  U  A  SA
29. CXC should organize workshops on standardization for teachers.  
    SD  D  U  A  SA
30. Recording pupils marks is a simple process.  
    SD  D  U  A  SA

C. Personal Data
The information required in this section will facilitate proper interpretation of the data you have provided in the preceding sections. This will be treated with the utmost confidentiality. Please respond to this section by checking or completing the blanks.

1. What is the highest level of education you have attained.
   ______________  1. Six standard examination.
   ______________  2. G.C.E. examination
   ______________  3. C.X.C. examination.
   ______________  4. Diploma
   ______________  5. First degree
   ______________  6. Masters degree
   ______________  7. Other

2. Name your island. __________________________
3. Number of years of teaching experience.
   1. One to five years
   2. Six to ten years.
   3. Eleven years and over.

4. How many years have you taught CXC home economics.

5. In your opinion, do you have adequate equipment to teach Food and Nutrition practical classes.
   Yes _________ No _________
   If no, identify your needs. ____________________________________________
   ____________________________________________

6. How many pupils do you teach at any one time in a practical class.
   1. Below 10
   2. 10 - 20
   3. 20 - 30
   4. Above 30

7. Do you have a budget to spend on practical classes.
   Yes _________ No _________ If yes indicate approximate amount. _____________
   Is your budget supplemented by
   _________ Pupils
   _________ Fundraising
   _________ Teacher
   _________ No need to: budget is adequate
   _________ Other

8. Please state your general comments about the Food and Nutrition syllabus that might help in its evaluation.
   ____________________________________________
   ____________________________________________

9. Please give specific directions for improving the Food & Nutrition syllabus. _______________________
   ____________________________________________

Thank you for your cooperation in completing this questionnaire. I appreciate your precious time and effort. Please return your completed questionnaire to

Mr. Eugene Dyer
Sunbird
Castries
St. Lucia - West Indies