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CHILDREN'S INTERESTS AND CONCERNS: A STUDY OF ANAMBRA (NIGERIA) ELEMENTARY SCHOOL PUPILS

By

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ABSTRACT

CHILDREN'S INTERESTS AND CONCERNS: A STUDY OF ANAMBRA (NIGERIA) ELEMENTARY SCHOOL PUPILS

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Ebele Josephine Nwokolo Maduewesi

The purpose of the study was to identify and categorize the interests and concerns of elementary school pupils in Anambra State, Nigeria, and to examine the effects of three variables: age, sex, and physical location on the identified interests and concerns. Three indices: curiosity, wishes, and favorite activities were used to measure interests and three indices: aversions, worries, and fears were used to measure concerns.

The sample for the study, consisting of 530 pupils drawn from twelve schools in Anambra State, was made up of equal numbers of boys and girls, rural and urban pupils, and children selected from a younger and an older age set.

The major research instrument, a six-item questionnaire which had been translated into Igbo, the language spoken in Anambra State, was administered to the children by means of structured personal interviews. Each item on the questionnaire corresponded to one of the measuring indices.

Twenty-four research questions which served as focal points of the study were formulated in the following way: for each of the six measuring indices one research question was formulated to identify the components of the index followed by three other questions to examine the effects of sex, age, and physical location on that index.

A pilot study was carried out in an urban and a rural school to field test the research instruments and procedure, to generate categories required for coding the final study, and to establish reliability of the coding procedure.

The subjects' responses which were classified into categories by three coders during the final study, were analyzed to answer the twenty-four research questions. The chi square was applied in the categories to test for significant differences within the variables.

The results of the analysis indicated that biological, physical, and supernatural/religious phenomena were most frequently mentioned by the children as areas of curiosity. Wishes for personal possessions, those connected with vocations and future careers, and wishes for school success were the most commonly expressed. Playing, helping with home chores, and reading were the most frequently expressed favorite activities. Aversion to aggressive behavior and injustice, to dishonesty, and to conflicts with and punishment by adults were expressed most frequently. The most often expressed worries were about the supernatural, punishment, and school work,

while the most commonly expressed sources of fear were animals, the supernatural, and accidents or disasters.

Of all the variables, age showed the greatest number of significant differences based on the chi square. Younger children expressed significantly more wishes for personal possessions than older children, while older children expressed significantly more wishes for vocations and future careers. Older children also expressed significantly more wishes to be good than younger children. Regarding favorite activities, older children gave significantly more responses naming reading/studying as a favorite activity. Younger children expressed significantly more aversions to conflicts with and punishment by adults; they also expressed significantly more fear of animals. Older children expressed significantly more fears about the supernatural.

Urban children gave significantly more responses expressing curiosity about technology and applied science, while rural children gave significantly more responses expressing curiosity about biological phenomena.

Boys expressed significantly more wishes about vocations and future careers. Girls gave significantly more responses mentioning home chores as a favorite activity.

Dedicated to:

My parents, who laid firm foundations;

My brothers and sisters, especially

Chukuedu, who set the example;

Uchenna, who expressed faith in me early;

Ifeyi, sister and friend;

and JNC.

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CHAPTER I

INTRODUCTION

Need for the Study: Theoretical Bases

The need to understand the interests and concerns of children as a basis for curriculum planning has been expressed by many writers in various ways.[1,2,3] Tyler said that "interests are of concern in education both as ends and means, that is, as objectives and as motivating forces in connection with experiences to attain objectives."[4] The interests and concerns of students should guide the planning of classroom procedures. "A modern teacher," said Dorothy Cohen, "listens to and observes children so that she can adapt her resources to what she sees and hears from them."[5] Goodlad asserted that the good teacher comes into the situation looking for clues to the child's drives.[6] In a similar vein, Collier et al. said that knowledge of current interests of children can do much to assist teachers in motivating pupils.[7]

The utilization of children's interests as motivation for learning has been acknowledged as of prime importance because children learn more easily those things that are of interest to them. Indeed, Getzels suggested that the critical difference between what the learner learns and what he does not learn in the classroom "will in most cases be more a function of his interest than of his intelligence. The child who remembers the batting

averages to the third decimal place, of a dozen of his favorite baseball teams, may also be the one who cannot remember the single date of the discovery of America. It is silly to think of him as having baseball intelligence and history stupidity. What he has is baseball interest and history indifference."[8] Carl Rogers said that a person learns significantly only those things which he* perceives as being involved in the maintenance of or the enhancement of his own self. Indeed, Rogers insisted that learning can both be hastened and the time shortened if interest is present. He said that "there is evidence that the time for learning various subjects would be cut to a fraction of the time if the material were perceived by the learner as related to his own purposes."[9]

It should be obvious to curriculum planners that children's interests need no artificial compartmentalization. Cohen stated the obvious when she said that "like adults, children's learning is influenced by their tastes and feelings. Whatever children are newly interested in spills over into whatever they already know or what they want to know. They mix science, poetry, body movement and feeling with total ease in the examination of problems that concern them."[10] Dearden said that the motivational problem in teaching occurs precisely because children are regarded as needing something in which they have not shown voluntary interest. "It might accordingly be suggested that the curriculum be formed out

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*Here and in similar circumstances throughout this dissertation, "he," "his," "him" are used in a generic sense to refer to both sexes. This is for convenience.

of children's felt needs, which is in practice much the same thing as to suggest that the curriculum be based on children's interests."[11] Recent studies in human growth and development, educational psychology, educational sociology, and philosophy indicate that such issues as the role of experience in learning, individual differences among students, and the relation of maturation to readiness for particular learnings should be carefully considered in planning the curriculum.[12] At the same time, it must be borne in mind that curriculum has various other bases. Since the school has the ultimate function of serving members of the society that set it up, a balanced view of curriculum takes into account the fact that it must serve the needs of the child and those of society as an intelligent citizen, as a member of the family, as a skilled worker, and as a well-rounded individual.[13] As Gross et al. said, this arrangement ensures the maintenance of "some kind of harmonious relationship between the educative experiences of the members of [the] society and the major characteristics of the social patterns, customs and norms of the society."[14] Indeed, the recent upsurge of interest in career education in the United States attests to the importance attached to the societal components of the curriculum, in this case the importance of a balanced and informed attitude toward work. It also reinforces the view that curriculum planning should be done in terms of the developing needs and abilities of the learners based on the background of the needs of society, the relative usefulness of various knowledges and skills, and the logical nature of learning.[15] But important

as these other factors are, they are not the focus of this study, which is primarily concerned with how children's interests and concerns can be harnessed for the best results in the teaching/learning situation.

The above discussion suggests that the child's interests cannot be the sole determinant of the curriculum, but they nevertheless deserve a special place. Havighurst said that one can never assume that the child's spontaneously expressed interest and activities are completely reflective of all his important needs and capacities,[16] and yet they reflect a critical aspect of those needs. Taba suggested that the job of the curriculum maker and the teacher is to get below the surface and discover these things that may engage the student and connect them with what has to be learned.[17]

The factor of growth and change must be taken into account in considering children's interests. Growth means change, including change in interests, a factor well recognized in child development and education. Interests, like feelings and views, change in children as they develop and as their experiences broaden. The importance to educators of an awareness of developmental changes in children and in their interests has been noted by some writers.[18] Piaget's work has thrown considerable light on the developmental stages of children's thinking,[19] but the meaning of these stages is not always understood. Basing his views on Piaget's work, Elkind analyzed four basic misconceptions about young children. He pointed out that children think in a different way from adults, that they

learn best as active participants in the learning process, that they cannot always operate according to rules, that elaboration rather than acceleration is often preferable. He warned that emphasis on intellectual growth must be matched by emphasis on the personal-social side of development.[20] Cohen reminded us that "since the content of a full life is not the same at every stage, the education of young children must be strongly rooted in the developmental growth process of childhood."[21]

The essence of the developmental approach is the recognition of the roles of different dimensions of growth as interrelated and interacting in the young person. The developmental approach supports the view that there is a sequential and orderly transformation which enhances the ability of the organism to adjust.[22] Even though knowledge about child development does not answer directly the question of how children should be educated, it does "provide a basis for deciding what kind of education is desirable."[23] It also provides an insight into the interlocking developmental patterns as well as into the all-important individual differences. Knowledge of child development has greatly contributed to the concepts of readiness and pacing. These two concepts stress that effective teaching involves timeliness such that learning activities are in line with developmental sequence. The learner's effective cooperation is impossible if the learning task is beyond the learner's capacity to grasp or if it calls for skills and motivation which his physical or emotional base cannot support. In this connection, Hughes said that "even more enlightened teaching

methods cannot ensure success unless the existing schemata are sufficiently developed to deal with the situation."[24]

The elementary school years (age 6-12), characterized by some writers as the middle years of childhood, are of considerable developmental significance.[25] During this period, as the six year old enters school, he begins a movement that builds towards his independence from parents. At the same time, he begins to grope towards his own identity and towards the foundations of a personal edifice in which peers become increasingly important. Cohen said that "as they enter school, they are developmentally at a point where they must make a shift away from the old intimacy of the family. . . ."[26] Peer relationships are an important feature of the elementary school age, and Stone and Church suggested that this is one of the reasons adults know least about this developmental period. They said, "children at this age turn their backs on adults and unite in a society of children . . . clustering into same age and same sex groups drawn from the pool of neighborhood and school acquaintances."[27] This accounts for the effects of factors such as age and sex on interest development during the elementary years.

Statement of the Problem

The purpose of the research was to study the interests and concerns of elementary school children by examining their curiosities, wishes, favorite activities, aversions, worries, and fears.

The method of the research was to collect, classify, and analyze the curiosities, wishes, favorite activities, aversions,

worries, and fears of selected elementary school children in urban and rural locations in Anambra state, Nigeria; and to examine the implications of these findings in relation to the elementary school curriculum. In more specific terms, the study sought to answer the following questions:

Curiosities

1.0 What are elementary school children in Anambra state curious about?

1.1 Do the curiosities of younger elementary school children differ from those of older elementary school children?

1.2 Do the curiosities of elementary school boys differ from those of elementary school girls?

1.3 Do the curiosities of urban elementary school children differ from those of rural elementary school children?

Wishes

2.0 What are the major wishes of elementary school children in Anambra state?

2.1 Do the wishes of younger elementary school children differ from those of older elementary school children?

2.2 Do the wishes of elementary school boys differ from those of elementary school girls?

2.3 Do the wishes of urban elementary school children differ from those of rural elementary school children?

Favorite Activities

3.0 What are the favorite activities of elementary school children in Anambra state?

3.1 Do the favorite activities of younger elementary school children differ from those of older elementary school children?

3.2 Do the favorite activities of elementary school boys differ from those of elementary school girls?

3.3 Do the favorite activities of urban elementary school children differ from those of rural elementary school children?

Aversions

4.0 What are the major aversions of elementary school children in Anambra state?

4.1 Do the aversions of younger elementary school children differ from those of older elementary school children?

4.2 Do the aversions of elementary school boys differ from those of elementary school girls?

4.3 Do the aversions of urban elementary school children differ from those of rural elementary school children?

Worries

5.0 What are the major worries of elementary school children in Anambra state?

5.1 Do the worries of younger elementary school children differ from those of older elementary school children?

5.2 Do the worries of elementary school boys differ from those of elementary school girls?

5.3 Do the worries of urban elementary school children differ from those of rural elementary school children?

Fears

6.0 What do elementary school children in Anambra state fear?

6.1 Do the fears of younger elementary school children differ from those of older elementary school children?

6.2 Do the fears of elementary school boys differ from those of elementary school girls?

6.3 Do the fears of urban elementary school children differ from those of rural elementary school children?

The Significance of the Study

Interests and concerns, especially those that are common to groups, are usually heavily dependent on culture and environment. Hurlock stated that "cultural influences in the environment play an important role in the development of interests by controlling learning opportunities. From parents, teachers, and other adults, the child is given opportunities to learn what the cultural group considers appropriate interests and is deprived of opportunities to develop interests which the group considers inappropriate."[28] Based on the above views, the interests and concerns of Nigerian children are likely to differ from those of children from other cultures. Thus, this study would be breaking new ground, especially since no published Nigerian work has been found related to the topic of this study.

It is hoped that the results of the study will be found useful by teacher educators, administrators, planners of elementary curriculum, and even more by classroom teachers. Beauchamp said that "studying and diagnosing is a basic dimension of teaching."[29] In their various capacities, these people need to study and diagnose

the needs of the child before they can discharge their responsibilities meaningfully in the educational system.

The Nigerian National Curriculum Conference of 1969 was a landmark in Nigeria's efforts to modernize its educational system, while the beginning of the universal free primary education scheme in 1976 put the country on the path towards providing the citizens with basic education. One writer has suggested that "modern education must satisfy two demands. One of these is the transmission of cultural heritage; the other is provision for educational interests and needs of children."[30] So far there has been very little child development research on which to base educational practice in Nigeria and yet it seems obvious that to achieve the goals of modernization and making basic education as useful as possible, this is absolutely essential. This study is an effort to fulfill some of this need.

This investigator is in teacher education and she hopes to utilize the experiences of this study in professional teacher preparation, since among other things, results from this study could suggest areas in which elementary school teachers require additional competence. Since the teacher is the ultimate interpreter of the curriculum to the child, he is required to use his professional skill to understand the child. In the teaching/learning situation the teacher becomes responsible for adapting the results of curriculum planning and administrative arrangements to the classroom situation. It is here that the caliber of the teacher's professional preparation faces its greatest challenge. The critical difference between the professionally competent and the professionally weak easily shows up

in the classroom, since "it is only because the teacher is thoroughly cognizant of the backgrounds, interests, needs and capacities of his pupils that he can do a skillful job of selecting from the curriculum those areas and activities that he expects will challenge the motivational patterns of the children."[31] By identifying and analyzing the interests and concerns of school-age children, the findings of this study will provide additional tools for teacher education.

Information derived from this study would be of benefit in planning the curriculum of the elementary school in a realistic way. Some people have advocated that the entire elementary school program be adjusted in terms of the interests of the children enrolled. Others feel that children's interests should be taken into account along with other factors such as the social demand upon schools in determining the content of the school program.[32] This writer feels that much more than children's interests should be involved in determining the curriculum but interests are vital in the timing and presentation of learning materials. Thus in addition to its usefulness in planning the curriculum, the results of this study would also be very useful to the classroom teacher for selecting teaching activities and materials, for class grouping, and for individualized guidance sessions.

This study is an initial step in what may become a series of studies involving interest patterns of Nigerian children. Its importance is enhanced by the fact that it is being carried out at a time (1977) when the pervasive impact of television in particular, and other mass media in general, as major socializing agents, are still

in their infancy in Nigeria. At the present time, television sets are common in urban homes in Nigeria but rare in rural homes. There are TV substations in almost all of Nigeria's nineteen states but many television programs are centrally directed by the National Television authority. Programs are rarely on the air before evening except on weekends and special occasions. Under these circumstances, the impact of television as a socializing agent or as a factor affecting children's interests is minimal at this time, but this author suspects that the story would be quite different fifteen years from now.

Limitations of the Study

The sample for this study was taken from one state, Anambra, in Nigeria. The questionnaire, the major instrument used in this investigation, was adapted from one used in a previous and similar study by Crippen (1973). The questionnaire and how it was adapted are described in Chapter Three. A history of the instrument was not found, but the present investigator validated and established its reliability in the course of this study. Details of how this was done are also discussed in Chapter Three.

The instrument was translated into Igbo, the language spoken in Anambra state. While the translation procedure was carefully regulated, it is conceivable that some meaning was lost in the translation.

The ability of pupils to remember their interests and concerns during the interviews and their willingness to disclose them are limiting factors. Before the study, however, those who were trained to interview the children were so carefully instructed on techniques to

get around these problems that these particular limitations must be minimal.

Definition of Terms

In order to insure clarify and consistency the following terms are defined as they are used in this study:

Interest: A learned motive which drives a person to seek out particular objects, goals, or activities for attention. A theoretical definition of Interest is presented in the review of literature chapter.

Concern: An uneasy or anxious feeling of interest about something.

Curiosity: A strong desire to investigate, learn, or know.

Wish: A desire for an object, person, or happening.

Favorite activity: A preferred or most liked engagement such as game, sport, work, person, or happening.

Fear: A distressing emotion aroused by anticipation of pain, danger, or evil whether real or imagined.

Worry: A state of apprehension, uneasiness, or concern leading to anxiety.

Urban area/center: A community--such as Enugu, Onitsha, Nsukka, Nnewi--designated "urban" by the Federal or a state government in Nigeria based on political and demographic factors.

Rural area: The countryside outside the urban limits, characterized by sparse population.

Urban schools: Schools located within the urban limits.

Rural schools: Schools located outside the urban limits, in rural areas.

Elementary/primary 1, 2, 3, 4, 5, 6: Class levels in the elementary school corresponding to grades 1 to 6 in the U.S.A.

Younger elementary school children: Elementary school children in this study aged between 7 and 9 years.

Older elementary school children: Elementary school children in this study aged between 11 and 13 years.

Summary

In this chapter, an introduction to the study was made; a statement of the problem outlining in detail the questions the researcher sought to address was made; the significance of the study was discussed and the limitations outlined; lastly the terms used in the study were defined.

The remainder of the dissertation is organized in five chapters. Chapter Two provides the reader with basic general background information about Nigeria and about elementary education in Anambra state, Nigeria, where the study was done. Chapter Three is a review of the literature and research related to the study. Chapter Four describes the Methodology and Design of the study and Chapter Five presents the Analysis of Data and discussion of findings. Chapter Six presents the Summary and Conclusions.

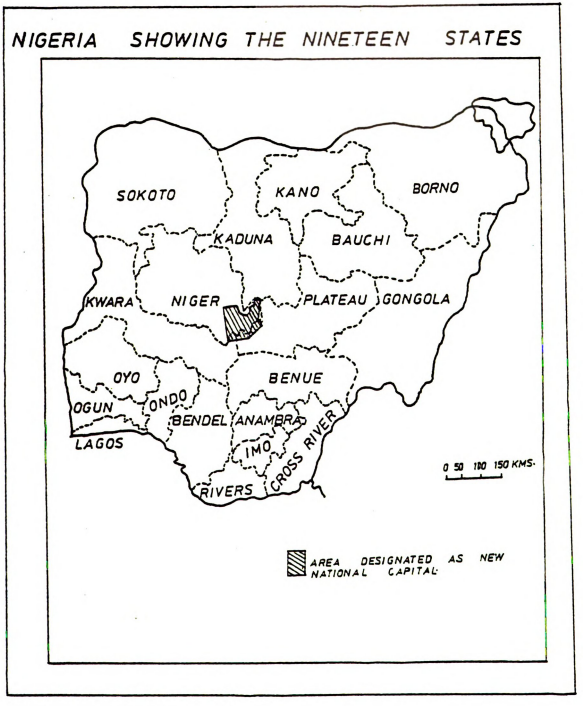
CHAPTER II

BACKGROUND

Nigeria: A Brief Introduction

Nigeria, with an area of 346,669 sq. miles and a projected population of more than 70 million, is located on the west coast of Africa. It has the largest population concentration in any single country in sub-Sahara Africa, containing about one-fifth of the continent's population. As it is graphically put, every fifth African is a Nigerian. Petroleum, discovered in the country in the last thirty years, is mined and exported in large quantities annually. Earnings from petroleum has improved Nigeria's foreign exchange situation and perhaps its prestige, but it has left the country with a gigantic internal inflation problem. Per capita income is still low, about $300 annually.[1]

The country, which changed from a federation of twelve states to one of nineteen states in 1976, has been under military rule since 1966. Part of its recent history was a civil war, 1967-1970. Return to civilian rule is planned for 1979 in preparation for which a draft constitution has been prepared and is being currently discussed throughout the country. Elections at the local government level were held in December, 1976, and a constituent assembly to debate the draft constitution is meeting.


NIGERIA SHOWING THE NINETEEN STATES
SOKOTO
KANO
BORNO
KADUNA
BAUCHI
KWARA
NIGER
PLATEAU
GONGOLA
OYO
BENUE
OGUN
ONDO
BENDEL
ANAMBRA
LAGOS
IMO
CROSS RIVER
RIVERS
0 50 100 150 KMS.
AREA DESIGNATED AS NEW NATIONAL CAPITAL

Literacy rate in the country is about 20 percent.[2] In September, 1976, the Universal Primary Education scheme was launched, insuring free education for all Nigerian elementary school age children. The educational system thus provides for a free six-year elementary program which is terminal for about 70 percent of the population.[3] Beyond this are five-year secondary school programs in grammar, technical and commercial education while further up there are various avenues for advanced academic or professional education. Polytechnics and Colleges of Technology provide technical, commercial, and business education of an intermediate level while the Universities provide courses leading to Bachelors degrees in Arts, Sciences, Education, Pharmacy, Architecture, and other professional areas. Medical schools produce doctors with M.B., B.S. degrees, while graduate courses in various fields such as Social Sciences, Education, Arts, Biological and Physical Sciences, and Medicine are available in some of the older Universities.

Anambra State: A Brief Social and Political Background

Anambra state, where this study was done, is one of the nineteen states which make up the Federal Republic of Nigeria (see the map on page 16). It takes its name from the Anambra River, a lower tributary of the River Niger. This state was one of the theatres of the recent civil war and parts of it suffered severe physical damage. Most of the structures have, however, been rebuilt but roads in particular are still in poor condition. Generally the citizens have resumed their former occupations and life has returned to normal.

In many ways, Anambra is a typical (southern) Nigerian state with a population of between three and four million. In climate and vegetation, it is tropical just like the rest of the country and the occupation of its rural citizens, farming, is typical of southern Nigerian rural areas. The occupations of Anambra urbanites are similar to those of urban dwellers in other parts of the federation. Living habits and styles in rural and urban centers resemble those of other Nigerians.

The Igbos, part of whose homeland this is, are traditionally rural dwellers. They are reputed to be hardworking and tenacious, probably because their poor quality soil, unrewarding as it is for agriculture, has taught them tough survival skills. In addition, population is generally dense and man-land ratio high. Parts of Anambra state fall into what Uchendu has described as "one of the world's most densely populated rural areas subsisting on root crops raised through hoe culture."[4] Traditionally the people are subsistence farmers but factors such as poor quality and unproductive soil, high man-land ratio have tended to lead to migration to other parts of the country, especially the urban centers, in search of employment. Thus urbanization and urban living are becoming increasingly important in the economy, life style, and habits of the people, especially since after the civil war. Amalaha observed that the Igbo has learned to be mobile and to be an important factor in Nigerian urban life; though he farms he also buys and sells in order to augment his meager harvests.[5] Making essentially the same point, Uchendu observed that "the Igbos see farming as their chief

occupation and trading as subsidiary and not a substitute for it,"[6] and again

> for most people agriculture is the principal means of earning their living and may long continue to be so. For others there is a flight from the land--a flight due not to disdain or disrespect but to the poor returns it offers. Those who cling to the land must supplement their earnings from other sources: trading, paid labor, livestock tenancy, handicraft and palm product.[7]

Industrialization, though slow, is proceeding and modern industries in the state include cement, steel and furniture factories, coal mining, cashew and palm produce processing. Two dominant food-producing areas in the state, Nsukka and Abakaliki, supply other parts of the country with some staples such as yams, and other vegetables.

One of the legacies of the Nigerian civil war (1967-1970) was a meteoric rise in the population of the urban centers, especially those in the former war zones. In addition to regular urban dwellers, people who lost jobs in other parts of the country, youth who felt too old to go back to school at the end of the war, rural dwellers who had nothing to rebuild their lives with, all flocked to the cities. This sudden rise in urban population without a corresponding increase or improvement in supportive services has confounded the existing problems of the urban centers. Some of its features include heavy traffic jams on city streets, acute housing shortage, unhygienic surroundings, and higher prices, especially for food. Developing side by side with the above is an interesting, though disturbing, feature of post-war urban life style. This life style is characterized by a new materialistic culture presided over by the nouveau

riche. In each city, particularly in the former war zones, some sharp-dealing businessmen and women made brisk fortunes from property deals with impoverished returning owners and from "reconstruction" contracts very soon after the war ended. This group of people, distinguished by ostentatious life style and habits, are becoming increasingly important in the economic life of the community, in spite of their scant regard for moral dealings. Whatever their faults, however, this group was important in revitalizing economic activities in the cities during the early post-civil war years.

Among the bigger and older urban centers or cities are Onitsha and Enugu, each with a population nearing half a million. Enugu, one of the oldest cities east of the Niger, is a coal mining location and has been the administrative seat of this part of the country since colonial times. It is the capital of Anambra state and home of a campus of the University of Nigeria. Onitsha, a major commercial center, is a river port at a strategic crossroad where a famous bridge links the southwestern part of Nigeria with the southeastern part. It is a typical booming Nigerian market town, crowded, unplanned, unhygienic. It is the home of the largest market in West Africa. Other smaller and newer townships (recently declared urban areas) include Nsukka, the seat of the main campus of the University of Nigeria; Awka, a town noted for its famous blacksmiths, its beautiful and historic woodcarvings; Nnewi, whose status as a commercial town has increased tremendously since the end of the civil war; and Abakaliki, noted as the center of a food-producing area.

Major urban occupations include civil service jobs, catering, shopkeeping, and trading; craftsmen and tradesmen of various skills are also found. In addition, there are artisans, professionals, teachers, and businessmen. To quote Uchendu again,

> The educated Igbo have entered the professions and white collar jobs; others are successful businessmen. Although politics is creating a new "industry," law, medicine, education and business administration provide a livelihood for Igbo professional people, and these frontiers are rapidly increasing.[8]

The sudden growth in urban population has meant a sudden drop in rural population which has resulted in rural deterioration. This is most observable in communally maintained assets such as markets and roads which are often in dilapidated condition because of little or no maintenance. Farm labor for planting and harvesting crops has also become very scarce and expensive. The rural areas, loosely referred to as "towns," are generally only a few miles from the urban centers or townships. Every town is made up of several villages and each village can have as many as five or as few as one school, depending on the population, size, and determination of the people. As with all rural people throughout the world, life is slow and routine, attitude is conservative but relationships are binding and warm. Villagers, mostly older men and women and occasionally hired labor, plod daily to the farm to do a variety of chores, depending on what time of year it is. Children are in school and youth are likely to have migrated to the township to learn a trade, go to school, or simply to escape.[9] Village craftsmen often combine a craft such as basket, rope, or cloth weaving, carpentry or carving with shopkeeping and selling wares in the daily market. A popular occupation,

especially among females but also among men in both rural and urban Nigeria, is the one-man tailor shop. The thatched shed, in which a young man or woman has hung a few yards of cotton cloth, and is operating a hand/foot machine, is a common feature of every part of Anambra state and of Nigeria as a whole. In the bigger urban centers, of course, such businesses assume sophisticated factory proportions.

Elementary Schooling in Anambra State

Two government departments, the Ministry of Education and the State School Management Board, are responsible for educational policy and administration in Anambra state. The educational system in the state is the same as was described for Nigeria, earlier. It is organized in three parts: (1) a six-year elementary program which is free; (2) a five-year secondary program with options for grammar, commercial, and technical education where fees are minimal;[10] and (3) a three-to-five-year higher education program.[11]

Universal Free Primary Education (commonly referred to as UPE in Nigeria), which came into effect in September, 1976, made elementary education free to all Nigerian children. Officially, elementary schooling is for children aged six to eleven or twelve. But in practice, children who are older than the specified ages are found in many elementary classes throughout the elementary system. This is more common in rural areas and with children of uneducated parents. In contrast, many educated parents enroll their children in school before they are six. Though free, elementary education is not yet

compulsory, the citizens of Anambra state, however, need no urging to send their children to school. According to Uchendu, "There is consensus among the Igbo that education is the key to progress as it is now reinterpreted."[12] Schools in this state suffer, not from lack of pupils, but from overcrowding. School facilities, teachers, and furniture are stretched to their limit of usability. Many urban elementary facilities are used by two school groups, one in a morning session and one in an afternoon session. Some are also used for additional night sessions for adults.[13] Thus teacher, room, and equipment shortage are among the gravest problems in Anambra elementary schools.

Size of schools differs but urban schools generally tend to be larger than rural ones. Schools with over one thousand pupils and more than thirty teachers are common in urban centers, while two- or three-room schools with as many teachers can be found in some rural areas. Variations in class size are also common and anything from thirty to fifty in each class is common. Most elementary schools except the very small ones have more than one stream[14] of each grade. In bigger schools, as many as four streams of each grade can be found. Table 1.1 shows the number of pupils enrolled in and the number of elementary schools in Anambra state as of March, 1977.

Elementary School Teachers

Three caders of teachers--the Grade I (the highest), the Grade II (the next highest), and the Auxiliary--can be found in the elementary school system in Anambra state. The cadres are

determined by the level of academic and professional qualifications obtained, and each cadre subsumes the one before it.

Table 1.1.--Anambra state: Elementary schools by division and number on roll, second term, 1976/77 (January-March, 1977).[15]

Division	No. of Schools	School Enrollment
Abakaliki	102	59,064
Aguata	149	66,250
Anambra	98	33,211
Awgu	131	56,977
Enugu	60	71,002
Ezeagu	63	28,915
Ezzikwo	94	48,595
Idemili	104	39,896
Igboeze	101	53,883
Ihiala	78	41,016
Ishielu	98	44,949
Isi-Uzo	103	40,854
Njikoka	149	62,784
Nkanu	87	42,705
Nnewi	115	45,595
Nsukka	120	65,944
Ogbaru	26	86,900
Onitsha	50	64,933
Udi	78	33,242
Uzo Uwani	33	13,141
Total	1848	931,646

Aspirants to the Grade I Teacher's Certificate require additional academic credits and the passing of a professional examination

beyond the Grade II level. The majority of Grade I teachers are usually in administrative positions as headmasters/headmistresses or their assistants.

The Grade II Teachers Certificate is obtained following two years post-secondary professional training in a Grade II Teacher's College.[16] Recently the training period for this grade of teachers was reduced to one year in order to hasten teacher production in the face of acute elementary teacher shortage. For the same reason, a new program was also started, to admit mature and experienced elementary school graduates for a five-year combined academic/ professional program to qualify them for the Grade II certificate and elementary school teaching. The Grade II teachers constitute the bulk of the elementary classroom teachers.

The last cadre, the auxiliary teachers, were recruited in large numbers in the last few years, to fill an acute need for teachers, following increased enrollment as a result of the launching of the universal free primary education scheme in September, 1976. They make up nearly a third of the elementary school teachers in Anambra state. Their basic education is limited to elementary schooling and they come to the classroom with very little or inadequate professional training. However, the Ministry of Education and the State School Management Board are making courageous efforts to provide them with at least a smattering of professional preparation by such means as one-morning-a-week and Saturday morning courses. Table 1.2 shows the number and status of elementary school teachers in Anambra state.

Table 1.2.--Anambra state elementary school teachers according to status.

Status	Number
Headmasters/mistresses	1,901
Assistant headmasters/mistresses	60
Other trained teachers	19,520
Auxiliary teachers	11,502

Curriculum of the Elementary School

For many years after Nigeria became independent (1960), the elementary school curricula remained basically the same as during the colonial period. Following the first National Curriculum Conference held in Nigeria, however, many changes have been made in the curricula of the elementary school.

As part of the soul searching for the troubles that beset the country[18] and partly as the realization of a long overdue step, a National Curriculum Conference was convened in 1969. It was the first time that Nigerians themselves came together to discuss their own system of education. It marked the first time that a search went out for what might be called a national philosophy of education. Among other things the conference recommended that the primary school curriculum should contain ingredients for inculcating national consciousness in the child. This was interpreted as making some measure of educational uniformity desirable across the nation. As a result, a series of workshops were held which resulted in the production of a national report titled Guidelines for Primary School Curriculum

(1973). This volume, which was sponsored by the Federal Government, was circulated to all the nineteen states in Nigeria as reference material from which each state could draw to make its own syllabus. In 1975, Anambra state, then part of East Central state, produced a new syllabus[19] based on the federal Guidelines. This new syllabus is the major pillar in the elementary school curricula in Anambra state, as discussed below.

The total curriculum, for the following discussion, focuses on four major components: the syllabus (the major aspect), textbooks, audio-visual material, and evaluation procedures.

The syllabus.--The present syllabus[20] is a 106-page document prepared by the Ministry of Education as a guide and addressed to the teacher. Some important features which are unique to this particular syllabus are its robust philosophy of Nigerian nationalism, the integrated approach it recommended for Social Studies, and some brand new subject matter areas such as Science and Drama. In its stress on nationalism, it seemed to have lived up to the charge that "our curriculum must help us produce a new generation of Nigerians who appreciate their role as citizens of a united, strong and democratic Nigeria."[21] Further, in an introductory comment to the syllabus the East Central State Ministry of Education observed:

> A special feature of the new syllabus is the introduction of integrated Social Studies, Modern Mathematics and Cultural and Creative Art. In Social Studies, distinction is no longer made between History, Geography, Civics and Moral Instruction. Modern Mathematics embodies an entirely new approach to Mathematics, while Cultural and Creative Art comprises Arts & Crafts, Drama and Music. The Sciences--Primary Science, Agriculture, Health Science and Home Economics--are to be taught from Primary I.[22]

The purpose of the syllabus is to provide a guide to the teacher. Thus it contains a listing of eleven subject matter areas as follows: (1) Language, (2) Mathematics, (3) Social Studies, (4) Primary Science, (5) Agriculture, (6) Home Economics, (7) Physical Education, (8) Health Education, (9) Cultural and Creative Art, (10) Hand Writing, and (11) Religious Knowledge. Each subject listed is followed by a brief comment addressed to the teacher, such as the following about Language.

> Language, Igbo or English, is a human activity. The main purpose of this activity is to communicate ideas and feelings. . . . Teachers are reminded that for the overwhelming majority of their pupils, Igbo is the first language and English the second. In terms of approach, Igbo should be taught as a mother tongue and English as a second language.[23]

All the subjects are discussed in considerable detail for each class, including suggestions about which features, units, or components the teacher should stress. Suggestions about materials and techniques to be used are occasionally included. All through the document (i.e., the syllabus) the teacher is urged to use initiative, creativity, and imagination to meet the needs of children in the teaching/learning situation.

From discussion with Anambra state Ministry of Education officials,[24] the investigator learned that teachers served on the State Curriculum Committee and other subcommittees which contributed ideas toward the production of the syllabus. One can conclude from this that the syllabus was based, at least in part, on the experience of those it was designed to help.

Teacher response to the document has been positive generally, and discussions which the investigator held with teachers and school administrators suggest that they approve of the document. The integrated approach to social studies particularly seems to make more sense to teachers, as it removes the artificial barriers which separated history from geography and civics. But other areas such as the new mathematics appear to be causing some anxiety,[25] largely it seems because some teachers have not themselves been adequately prepared to teach the required skills.

The investigator's overall assessment of the new syllabus is that it is a good working document. She feels, however, that there is an urgent need for the educational authorities to provide support of various types such as seminars and inservice workshops, to enable the teacher to use the syllabus most effectively.

Textbooks.--The following official view on the role of textbooks is informative:

> Textbooks and curriculum revision go hand in hand. Whenever changes occur in the curriculum, textbooks are revised or devised to match the new curriculum. In a developing country like Nigeria where educational technology has not made a great impact in our schools, textbooks constitute the core of educational material.[26]

The syllabus discussed above does not contain suggestions of specific textbooks to be used by the teacher or class because school systems are expected to select their own texts from a master list compiled by the Ministry of Education. Inquiries from the Ministry of Education[27] revealed that the preparation of the textbook master list goes through the following steps: The Ministry invites publishing

houses to submit to it copies of their published textbooks. When these are received, they are circulated to Zonal (i.e., divisional) Inspectors of Education who summon teachers and headmasters to review the books. Afterwards, their recommendations are returned to the Ministry of Education, which then compiles the master list based on these.

It is encouraging to note that there is some teacher input, however small, in developing this aspect of the curriculum, which had hitherto been handled by administrators. It is hoped that this is the beginning of much greater teacher participation in a curriculum area which they should dominate.

Audio-visual aids.--The constant references made to the importance of visual and other teaching aids in the syllabus discussed above suggest a recognition of the importance of this curriculum component. Teachers are urged throughout the syllabus to make and use aids such as models, maps, charts, in order to add meaning, attractiveness, and appeal to their lessons. The Anambra State Ministry of Education has a Modern-Aids-to-Teaching Center, which is presently undergoing reorganization. In the past the Center was involved in producing teaching/learning aids and materials for school broadcasts, but there remains much that the Center can do to support teachers and the schools with teaching aids. Teachers themselves are often hindered from making and using visual aids in their lessons by a host of other handicaps such as lack of financial support, lack of knowledge, and lack of materials.

Evaluation procedure.--The educational system in Anambra state, as in Nigeria as a whole, is examination-oriented. Major examinations are required for transition from one educational stage to another, and for progress from one elementary class to another every child is expected to pass an examination. Naturally, these examinations are fact oriented and teaching follows much the same pattern. Bloom's warning that testing "may do more to influence student learning and teacher practices than the other educational procedures that we regard as the substance of education"[28] was never more true than in the case of Nigeria. Teacher initiative and creativity are encouraged in theory, but the reality of practice does not provide much scope for them.

Some Crucial Issues in Elementary Education

The following brief discussion of some issues which the investigator identified as being crucial in elementary education in Anambra state does not represent a consensus of views. It simply reflects the author's own assessment.

1. Problems of learning in a foreign language. The status of Igbo, the language of the people of Anambra state, is uncertain and ill-defined within the elementary school system. Since English is the language of education and government in Nigeria, the early classes (i.e., grades) of elementary school are taught by a mixture of English and the child's mother tongue. Thereafter, there is a switch to English as the medium of education, and English continues in this capacity for the rest of the educational system.[29] Numerous

problems are inherent in this arrangement since neither the teacher nor the children are adequately prepared for the switch. Some of the learning problems created by similar arrangements all over Nigeria have been identified.[30]

2. Teaching and learning are not perceived as interactive, but as distinctively discrete activities in which the teacher gives and the learner takes. Amidst frequent shortages of basic facilities, in situations where teachers are often overworked and underpaid, where adequate knowledge of new and workable teaching strategies is frequently lacking, in the absence of research evidence on which to base practice, a warped conception of teaching and learning is not surprising. In this situation, processes and techniques for exploring child-directed learning are neglected while facts much easier to handle though of much less ultimate value are emphasized.

3. In spite of important changes in the syllabus, the question of relevance persists. The 1969 National Curriculum Conference noted that "The primary school curriculum must be weighted more heavily on the first order of preparing the majority of children for life, since primary education may turn out to be terminal education for this category."[31] But the crucial question of specifying which components of the elementary curriculum constitute "preparation for life" was not and has not been tackled.

4. Teacher education and the quality of teachers in the nation's schools are basic considerations in any plan to develop a country. In the final analysis, it is the classroom teacher, not the headmaster or the Ministry of Education official, who is the

interpreter of the curriculum to the child. In the interactive teaching/learning process, the teacher's conception of the learning experiences which the child should have is vital. The scheme or unit of work, the selected textbook or reader, and the audio-visual materials, in short the curriculum itself, becomes either serviceable and enriching or neither, depending on what type of teacher is mediating it to the child. The younger the child the more critical the teacher's role. This obvious fact provides a compelling reason why the production of well-trained elementary teachers should take priority over many other matters including even the production of a syllabus. Unfortunately, the production of well-trained elementary teachers is rarely a high priority; more often attention is focused on education at other levels. Hanson's observation in this regard is perceptive; he said: "Too much primary school teacher education in Africa today is watered down secondary education, with some works in methods and psychology thrown in."[32] Not surprisingly, teachers so trained "do not look at the community and its problems but at a paper syllabus; after all, this is what has dominated their education from their earliest school days through the last days of their professional training."[33] In the developing countries, the issue of teacher education in relation to educational development constitutes a vicious circle[34] and teacher educators, especially at the university level, are searching for the points at which to break the circle.

CHAPTER III

REVIEW OF LITERATURE AND RESEARCH

This chapter presents a review of literature and research related to the topic of this study.* The chapter is presented under the following subheadings: The Nature of Interests; Variables that Affect Interests; Interests and the Learning Process (reading and media interests); Interest Indices: Curiosities, Wishes, Favorite Activities; and Concern Indices: Aversions, Fears, and Worries.

The Nature of Interests: Theoretical Bases[1]

Interest as a spur to learning is vital at all stages of life. For children, it can make the critical difference between learning and not learning. Kopel has said that: ". . . in the constellation of human qualities, which comprise the human personality, none perhaps serves better than interests to characterize a man and to distinguish him from his fellows."[2] Other personality components such as attitudes, values, and habits are also very important but interests permeate them all. It has been said that interests that endure often have special characteristics which are not always found

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*The investigator could not identify any study related to the topic of this dissertation in which Nigerian or other African children were used. Only one study using Kenyan subjects was found. Thus, the following review is based largely on studies done in America, and on American children.

in general interests; frequently, too, such interests are varied and mature. "They depict the uniqueness of a person that far excels what may be gleaned from any catalogue of skills or inventory of attitudes."[3] Enduring interests reflect the total personality and suggest the individual person's life style.

Skill and interests go hand in hand. Bruner[4] suggested that we become most interested in and perceive as part of ourselves what we control. In other words, skill provides the confidence necessary for the development of enduring interests. There appears also to be a close relationship between interests and values. Kopel observed that the Allport-Vernon-Lindzey "study of values"--an instrument used for the appraisal of values--was in actuality an inventory of interests.[5] The structure of this instrument is comparable to the six value types described by Spranger in which each type is characterized by a dominant interest. For an example, the economic type has a dominant interest in what is useful, while the religious has a dominant interest in comprehending the unity of the universe. Kopel mentioned that a satisfactory validity has been reported for the "study of values" in numerous instances, which thus supports its use for counseling and vocational guidance.

Other factors that affect interest development include age, sex, physical location, and social class. Whatever variable is adopted in an examination of interests is based on its convenience in providing a suitable framework for ordering and evaluating the phenomenon in question.

Smith proposed three categories of interest: active, social, and creative. He distinguished between active and passive interests, observing that the former extends the self whereas the latter does not. According to him, active interest has more potential for developing control than passive interest. While the role of social interests lies in helping the individual expand himself such as in developing friendships and interactive skills, creative interests, on the other hand, provide for the development of self-potency, self-understanding, and control. This way, emotions such as fear, anger, and frustration are channeled to constructive ends. From the above, it seems reasonable to conclude that what a person does with an interest is more important than the interest itself.

The determinants of interest have been traced back to the origins of basic human needs but are different from needs. Maslow[6] propounded a theory of five basic needs: the gratification of bodily hungers, safety and security, love and affection, self-respect and social esteem, and self-actualization. Super[7] discussed culture and class, intelligence, aptitude, social expectation, personality needs and values, and physical characteristics as factors determining interests. He condensed these to three interdependent factors which he called aptitude, social expectations, and need or value. He said:

> All of these combine to determine interests. What a person can do well and what people expect him to do limit the activities in which his needs and values will manifest themselves and the preferences which they lead him to formulate. They limit also the development of his interests. What a person needs and values and what people expect him to do limit the outlets which he will find and use for his aptitudes. And what a person can do limits his response to social role expectations. No theory

> of interests which fails to give due emphasis to all three types of factors seems likely to stand the test of time or to prove very helpful to educators.

As expressed above, Super provided an effective synthesis of the essential ideas contained in the views referred to earlier.

Definition of Interest

A recurrent issue in studies of interests has been the lack of a clear definition of what interest actually is. Sylvia Carter[8] asserted that a careful analysis of more than fifteen introductory texts used in teaching reading indicated that interest measurements were based on "certain unquestioned theoretical assumptions." Hubbard,[9] who conceived interest as a relations study, also noted the lack of clarity in defining interest. According to her the typical "interested" behavior has the following characteristics: (1) the person willingly puts forth effort to accomplish a purpose, (2) he will pay attention to that which attracts him, and (3) his behavior towards his goal is persistent.

Getzels distinguished between interest and preference, interest and a positive attitude, interest and a drive. He commented:

> An interest . . .. is not merely a preference. I have a preference for broccoli over asparagus. I have no interest in either. The difference between a preference and an interest is that the preference is relatively passive while the interest is mentally dynamic. A preference is a readiness to receive one object as against another; it does not induce us to seek out the object. In contrast, the basic nature of interest is that it does induce us to seek out particular objects and activities.
>
> Again, despite present usage, an interest, it seems to me, is not merely a positive attitude. I have, for example, a positive attitude toward the Eskimos. I confess that I have no particular interest in them. In contrast, I have a decidedly negative attitude toward the Soviets. But I am keenly interested in them. An attitude implies merely the readiness to react in a

> particular direction with respect to the given object. We do not ordinarily speak of being driven by an attitude; we are necessarily driven by our interests.
>
> Finally, I want to make clear the distinction between a drive and an interest. A drive has its source in a specific physiological disequilibrium and the individual seeks conditions that will reduce the drive or need. An interest has its source in experience and challenges us to exert ourselves even though there's no necessity in any biological sense. Technically speaking, we may say a drive is a function largely of our individual processes, an interest largely of our ego processes.[10]

Getzels proceeded to suggest the following definition of interest:

> An interest is a characteristic disposition, organized through experience, which impels an individual to seek out particular objects, activities, understandings, skills or goals for attention or acquisition.

English and English defined interest as "selective attention to something, an attitude or feeling that an object or event makes a difference, or is of concern to oneself."[11] Kopel summarized the foregoing ideas in his own definition thus: "Interests are objects, relations, skills, goals and activities that actively engage our selective attention."[12] He made the important observation that in spite of the foregoing ideas, interest does require effort. He concluded, "what makes an activity interesting is not that it is 'easy' but rather that it is challenging--which means that it presents obstacles that can be overcome--necessarily through effort."[13]

Hurlock said, with regard to the development and acquisition of interests:

> The child is not born with ready made interests. Instead, interests are an outgrowth of learning experiences. The kind of learning from which an interest develops will determine how satisfying and how persistent the interest is likely to be.[14]

In summarizing, the foregoing views suggest that interest in adulthood is closely linked with the personality, providing scope for

social and creative growth. Theories of interest go back to the concepts of basic human needs but interests are much more than a preference, a positive attitude, or even a drive. Interests have been defined as objects, relations, skills, and goals that actively engage human attention. Interests are learned and their development is affected by certain factors. It is to these factors that we now turn.

Variables That Affect Interests

Interest is a learned motive,[15] and it is influenced by various factors which impinge on learning. Cultural and social influences regulating such things as sex roles are important in the development of interests. Parents and other adults provide models and opportunities to enable the child to learn and develop interest in what the group considers appropriate, while depriving him of opportunity to develop interest in those things the group considers inappropriate. Doris Young aptly illustrated this phenomenon when she said that nice little girls, for instance, were not supposed to be interested in mechanical toys or chemistry sets.[16]

The location in which a child lives also affects the kinds of interests he develops, depending on opportunities available to him. Hurlock reminded us that opportunities to learn depend upon the environment and the interests of the people, both children and adults, with whom the child is associated. She observed that even already developed interests are subject to extinction through disuse.[17]

Age, a factor in determining physical and mental capacities at any given stage, affects interest development. Maturation, cognitive skills which the child has developed at any given developmental stage, enable him to function within the age group, and thus discharge roles and activities appropriate to that age group.

Age as a Variable

Gessell noted that:

> Psychically the child inherits nothing fully formed. Each and every part of his nature has to grow--his sense of self; his fears, his affections and his curiosities; . . . his ideas about life and death, crime, man, nature and deity. All his sentiments, concepts and attitudes are products of growth and experience.[18]

At each stage, maturation and development of cognitive skills enable the child to handle age-appropriate activities in which he could then develop interest. Quite early, young children realize differences in functions and duties according to age. Goodman stated that "the three year old in any society knows his identity as a boy or girl and is rapidly learning what is considered appropriate behavior for boys and girls, for men and women."[19] Age-dictated interest is strongly reinforced during the middle years of childhood when the peer gang is an extremely strong influence.[20] Improvement in motor skills during the middle years contributes to a growing sense of competence, leading to greater peer acceptance, especially among boys.[21]

In a study involving six, eight, and twelve year olds, Nelson[22] unobtrusively observed the children in free-play situations,

and also administered a picture card test. She found that both age and sex were potent factors in determining preferred play groups.

Summarizing, as the child develops physically his cognitive skills also grow. At each stage these two facets of growth affect his social activities and interests, which are also influenced by the physical location in which the child lives.

Location as a Variable

The location in which a person grows up--rural, city, suburban, or small town--tremendously affects the experiences to which he is exposed. Semple said that "location may mean only a single spot and yet from this spot powerful influences may radiate."[23] Theron Alexander observed that "a human being, like any other organism is an object in space; he is surrounded by a milieu with which he interacts."[24] Dubos also noted that:

> Jets and world television have not altered the fact that rocky hills and alluvial plains, family homesteads and housing developments foster different kinds of people. During the last 40 years, my professional activities as a microbiologist have given me many chances to observe in the laboratory that the characteristics of all living things are deeply affected by the conditions of their lives.[25]

Opportunity to become interested in some things or lack of such an opportunity is often a function of where one lives or grows up.[26] Living conditions, especially in cities, have been of interest to scholars because these conditions affect behavior. Preobrazhensky et al. characterized the city as a body that has "continuous mass contact, vast flow of information and noise, physical passiveness

in an artificial and monotonous environment isolated from nature."[27] Alexander contended that "the validity of distinguishing between urban versus rural life style lies in the high degree of technology and organization demanded by urban living, which will produce a new type of society in future."[28]

The emotional implications of physical location were underlined by Proshansky, who said that physical settings, simple or complex, evoke complex human responses in the form of feelings, attitudes, values, expectations and desires, and it was in that sense that the relationship to human experience and behavior must be understood.[29] Stringer saw the effect of urbanization only in terms of social relationships.[30] Milgram suggested that the contrast between city and rural behavior probably reflects the response of similar people to very different situations. In other words, individuals respond adaptively to the city.[31] He theorized that urban life style has a detrimental effect on human behavior because the urban environment represents a cognitive overload which results in the reduction of human functioning. Skolnick[32] cited studies by Calhoun and Griffith and Veitch, which showed that high-density conditions lead to aggressiveness, carelessness, and passivity in rats and humans.

Urban living is an important factor in human development, and an understanding of its effects is essential for educational planning. Urging this understanding, Dubos said:

> Since human beings are as much the product of their environment as of their genetic endowment, it is theoretically possible to improve the lot of man on earth by manipulating the

> environmental factors that shape his nature and condition his destiny. In the modern world, urbanization and technology are certainly among the most important of these factors, and for this reason it is deplorable that so little is done to study their effect on human life.[33]

Nancy Larrick insisted that if we are to make the best of children's interests, we must know what those interests are at various age levels and in various communities. In a study of fourth graders in communities across the United States, Larrick found that in rural Louisiana every child had a pet, in rural Virginia 86 percent did, while in New York City only 10 percent of the children studied had pets. In rural communities, 65 percent of the children mentioned they had most fun while playing, but only 10 percent and 25 percent said so in two New York communities.[34]

In summarizing the sources discussed above, we note that the location in which a child grows up determines his opportunities to learn, his values, and his interests. City life, with its social tensions and physical pressure, was represented as a cognitive overload, which has a detrimental effect on human behavior. At least one study suggested that the interests of rural and urban children differ.

Sex as a Variable

It is not clear when the learning of sex roles starts in children, but certainly long before they enter school.[35] The home, the school, and the mass media are contributing institutions in sex role socialization.[36] In almost all cultures boys and girls are expected to conform to certain patterns.

Hartley interviewed eight-to-eleven-year-old boys about what they thought adults expected them to do. The responses showed that the boys believed that adults expected them to be noisy, dirty, play rough games, and get into trouble more than girls. They also thought that adults expected girls to stay close to the house, play quietly, keep clean, and be gentle.[37]

Quite early in the lives of children, the home sets the stage for sex role socialization when toys are differentiated for boys and girls. Millar said that only very young boys are allowed to play with their sisters' dolls without ridicule or remonstrance.[38] Older girls are discouraged from participating in physically aggressive activities and are called "tom boy" when they do, while boys are labeled "sissy" if they avoid rough games in preference for reading and playing the piano.[39]

Liebert, McCall, and Hanratty investigated first graders' toy preferences. The investigators told the children that members of their own sex preferred certain toys and thereafter the children were asked to make their own selection. The result showed that each group of children tried to match its own sex in toy selection, but knowledge of what the opposite sex preferred had no effect.[40]

Montemayor used sex preference as a behavioral index of performance level. Games labeled sex-appropriate, sex-neutral, and sex-inappropriate were played by children aged six to eight. Performance results scores for both boys and girls were highest on those labeled sex-appropriate, intermediate on those labeled sex-neutral, and lowest on those labeled sex-inappropriate.[41]

If the home is the basic sex role educator, the school reinforces the efforts of the home. Certain so-called "soft" subject matter areas such as the humanities are habitually associated with girls, while such others as woodwork and mechanics are the domain of boys. Some musical instruments are considered more suitable for girls than for boys. According to Levy and Stacy, in dividing chores within the classroom, girls water the plants and boys move the chairs.[42]

Summarizing, sex role socialization, a common feature in most human cultures, is promoted by social institutions such as the home, the school, and mass media. Following these socially expected patterns, quite early in their lives young children learn to base their activities and interests on socially accepted standards. In turn their preference for a learning modality is often based on their interests.

Interests and the Learning Process

Interest as an important factor in the learning process has led to many studies on the topic. Doris Young observed that "although much has been written about children's interests, teachers continue to ask questions regarding the factor of interest in planning the educative process for and with children."[43] In a similar vein, Virgil Howe noted that "interest is an all important basis of learning whatever the particular level of competence may be. But when moved by a high degree of interest, children show increased energy to work persistently at reading until satisfaction is gained from accomplishment."[44]

During the first part of this century, studies of children's interests were of the general type. Researchers in those days used various techniques such as indices of children's interests like the "three wishes"; the interest inventory, collecting and keeping records of children's questions, and "I wonder about . . ." were also utilized to get at children's general interests. Research of this type is reviewed below under Interest Indices. Since the 1960's, however, studies of children's interests have become more specialized; today investigators in this area tend more and more to concentrate on specific interests such as reading interests, television interests, story or poetry preferences, and the like. Following is a review of literature and research on children's reading interests.

Reading Interests

In the Final Report of the National Endowment for the Humanities Project,[45] the authors reviewed reading interest research. They showed that from the point of view of methodology, interest was often poorly defined. Their review showed that methods used in reading interest studies included the checklist, observation, interview, and the questionnaire. In a survey of reading interest studies since 1900, McKay[46] found the questionnaire the most often used method. Another study by Lehtovaara and Saarinen[47] using 2000 Finnish pre-adolescents and adolescents compared the merits of four techniques--questionnaire, fictitious-title booklists, text sample, and paired comparison. They found that the booklist and text sample had the closest correspondence. When Kiser[48] studied the effectiveness of

measuring elementary students' attitude towards reading by means of the San Diego County Inventory of Reading Attitude, he found one part of the instrument more effective for girls, the other part more effective for boys. This suggests that certain techniques could be more effective for certain groups than for others.

Some research studies on what children actually enjoyed reading showed that reading interest areas changed with age, but many studies also found similarity in reading interests throughout the elementary years. A typical list of elementary students' reading interests compiled by Broening[49] showed in order of decreasing interest: adventure, fairy tales, making things, humor, biography, true-event stories, and animals. Witty, Coomer, and McBean[50] found that pupils in the first two grades preferred subject matter about animals, nature, fantasy, and characters as children. Similar results were obtained by Nelson and Consuelo.[51]

On the basis of his findings, Curley concluded that as pupils in the third and fourth grades lose interest in animal stories they become more interested in stories of adventure, familiar experiences, and nature.[52] According to Terman and Lima, by the fourth and fifth grades reading interests tend to become more fixed.[53] By about fourth or fifth grade war adventure, travel, and mystery stories capture the interest of boys, while girls prefer westerns and animal stories; at the approach of puberty, love stories dominate girls' reading as sex differences become more pronounced in reading interests. Intelligence has been mentioned as a factor that affects reading interests. According to Thorndike,[54] the more intelligent

children lose interest in less sophisticated material sooner than the less intelligent. Cultural and prevailing influences, for example space travel, have also been noted to influence children's reading interest since the 1960's.

Some studies have been concerned with the literary forms children prefer. Generally, elementary children seem to prefer literary forms to nonliterary forms. Peltola[55] found in a study of 3,176 children that fourth and sixth graders chose more stories classified as "real" than those classified as "make-believe," but more sixth graders chose more "real" stories than fourth graders,

> suggesting a developmental trend from fantasy interests to interests in real life stories or possibly in realistic treatments. . . . The findings do suggest that primary students perceive their reading, for the most part, as entertainment--the more successful action plot in gripping their attention or making them laugh the more they like it. Another factor is that primary children tend to prefer a form that does not confine them, which allows free extensions of vicarious experience.[56]

It appears that in general poetry as a literary form is not popular with elementary children but certain kinds are more popular than others. Poems retaining elements of prose, action, and humor are preferred to sentimental, didactic, or subtle poetry.

It is interesting to note that the appearance of a book affects its appeal to children. Elder and Carpenter[57] reported that books with smaller print are construed as belonging to more "grown up" people. Illustrations were found very important to kindergarteners. Books were especially favored if illustrations were lifelike or depicted action. Rowland and Hill[58] found from their study of reading selection behavior that more Caucasian children

selected books illustrated with their own racial features than did black children.

Among personal determinants of reading interests, researchers have found sex, IQ, and age as significantly related to sophistication of reading interest. Terman and Lima[59] indicated that elementary school students' interests show a definite development by grade level. They said:

> Researchers have found a close conformity of interest to grade level. Children at all age levels maintain interest in children their own age. The identification at earlier ages is with fantasy figures, usually animals, who represent childlike experiences, while the more realistic stories popular with older elementary school children portray peers undergoing unknown or suspenseful adventures.[60]

A number of studies such as those by Norvell[61] confirm sex as the most important determinant of differences in reading interests. According to Norvell, girls read more and mature earlier in reading ability. Before age nine there is generally little sex difference in reading interest but thereafter, differences become important. Purves and Black commented:

> One explanation for differences between the sexes in the elementary grades is identification with sex-related characters--a phenomenon also explaining sex differences in literary response studies. Another might be sex-role stereotypes.[62]

Peltola's study[63] found sharp sex differences among fourth and sixth graders in the types of characters the children preferred. Klein's[64] study, in which he made boys and girls rate the same characters, revealed that boys and girls reacted to the same characters in distinctly different ways.

Other factors identified as influencing reading interest include availability of books, socioeconomic and ethnic factors.

Since most of the studies were done with white children, not much difference was found between the different ethnic groups. But significant differences have been found between blacks and whites in interests as shown by the Rowland the Hill study,[65] in which Caucasians chose significantly more books illustrated with their racial features than blacks did of black-feature-illustrated books. Little difference was found between rural, suburban, and metropolitan students from the studies of Shores,[66] Rudman,[67] and others. The influence of peers, parents, and teachers has also been noted in reading interest development. These people not only recommend books for reading, but serve as models of emulation. Getzels[68] suggested that modeling affects reading interests more than instruction. He also believed that parents appear to know more about children's reading interests than teachers.

In an analytic study of why children, particularly six to eight year olds, like fairy tales, Andre Favat[69] used Piaget's child development theory to build a relationship between interest in fairy tales and the child's psychological state. Favat referred to studies by Arbuthnot and Sutherland as additional evidence in support of his contention. He maintained that modern youngsters, surrounded as they are by mechanical gadgets and scientific wonders, are still spellbound by the magic of the fairy tales. He found fairy tales most popular between ages six and eight, followed by a decline in interest concurrent with which a new interest in stories of reality emerges. Favat asserted that at each stage of development children turn to different kinds of reading to achieve whatever gratification

they need. Among the conclusions he reached from his study were the following: Fairy tales embody an accurate representation of the child's conception of the world; children younger than eight are attracted to fairy tales because the tales by their form and content reaffirm children's original, simplistic conception of the world as a stable and gratifying universe.

Studies reviewed above indicate that methods used in reading interest studies have included inventories, questionnaires, checklists, observations, and interviews. Children's reading interests change with age, and while animal stories are most popular with young children, older children have been found to enjoy humor, adventure, and true-situation stories. From about age eight or nine, reading interests begin to be affected by sex. Westerns and animal stories are enjoyed by girls at this stage until love stories displace them during the teen years. Boys like stories of adventure, war, and travel. Poetry in simple form is enjoyed by most children and, on the whole, girls read more than boys. Illustrations and appearance of books are among factors that determine book popularity. Other factors that influence children's reading include race, socioeconomic status, availability of books, and significant individuals such as parents and teachers. Interest in the fairy tale, paramount up to age eight, is explained to be psychologically linked with childhood developmental patterns.

Media Interests

In recent years the influence of mass media, especially television, on children and in particular on their behavior has been

a source of concern to both parents and educators in the United States. The status of television in Nigeria has already been referred to. As of now its impact on the society is minimal and this investigator knows of no study dealing with the effect of television on any aspect of child development in Nigeria. Thus all the studies reviewed below refer to the United States.

The Report to the Surgeon General, Television and Growing Up,[70] observed that much of the time children spend today watching television is simply the time earlier generations of children devoted to such media as movies and radio, to social activities, play with other children, daydreaming, listening to adult conversation, and other unsupervised activities. It continued: "Important changes in children's psychological functioning may result from this redistribution of their time in waking hours experience."[71] Studies have shown that children spend an unusually high proportion of their out-of-school time in front of television screens. In a study of play and recreation, Witty[72] noted that mass media constituted the most popular leisure activity of children and youth. In order of preference, television and radio consume more of children's time than anything else.

In another study in which he summarized studies of children's interests, Witty[73] noted that prior to the television, children spent two or three hours daily reading or listening to the radio. Attendance at movies was once or twice weekly. In terms of favorite movies, Disney productions, cowboys, and pilots were rated among the most popular. In another study, Witty et al.[74] reported that before

1960, children in grades three to nine were spending eight hours each week listening to the radio, younger children averaging fewer hours than older children. By 1960, television was being rated highest among children's favorite pursuits. The authors observed, in relation to this phenomenon:

> We may observe the marked influence of mass media upon the lives of children and youth. A problem of primary significance in teaching reading implies the recognition of this force as well as the importance of efforts to utilize interests awakened through mass media.[75]

A U.S. Office of Education supported study by Northwestern University[76] showed that children in grades three to nine devoted 1.1 hours daily to reading, while much more was spent on television. Much of the reading was fiction; science fiction was preferred by boys and girls enjoyed romance. Very little time outside school was spent reading.

Studies by Bailyn[77] and Miller[78] revealed that sixth graders spend time, most to least, watching television, reading comic strips, reading books, reading comic books, listening to radio, and lastly going to movies. Bailyn noted that students fall into two groups--those utilizing mostly verbal modalities and those using media modalities. The Report to the Surgeon General[79] noted that by first grade, children have spent hundreds of hours watching television, and know the system so well that a majority of boys and girls exhibit individual taste in television program selection and preferences for characters. Among younger children, situation comedies and cartoons are most popular, while sixth graders prefer family situation comedies, adventure, and music variety programs. Tenth

graders enjoy adventure and music variety programs. Children and adults alike are attracted to programs featuring characters their own age. The report concluded, "The propensity to view television changes as the individual goes through the major stages of maturation."

Feeley's[80] investigations revealed that children generally preferred watching television to reading. He administered an inventory of fifty items based on annotated fictitious titles to 250 boys and 282 girls of mixed races in grades four and five in New Jersey. Analysis of the results showed that while race was not a strong factor in content-interest determination, socioeconomic status and sex were. Consistent with previous research, Feeley found that girls liked to read more than boys; children from lower socioeconomic families spent more time watching television than reading. Overall, all children preferred watching television to reading.

Nancy Larrick's[81] study of children's television-watching habits revealed that three to five year olds average fifty-four hours of television watching each week; the average pre-kindergartener spends 65 percent of waking time in front of a television screen; by the time he graduates from high school he has spent roughly 11,000 hours in school and double those watching television. Regarding the probable effects of television violence on children, Larrick referred to a University of Arizona study which found that by the age of fourteen the average American child has seen more than 18,000 human beings killed on television.

Cox[82] had fourth and fifth graders rate twenty-four short films. On analyzing the rating she found that the children liked best those films depicting realistic settings; sex was not a factor in film preference, but race and socioeconomic status were moderately associated with film preference. Narrative, live-action films were the most popular.

Summarizing, children spend a large part of their out-of-school time watching television--thus depleting time previously spent on other interests such as reading, radio listening, movies, or conversing with adults. Early, children show preferences in television program selection as a result of precocious familiarity with the television. Younger children prefer situation comedies and cartoons, older children enjoy family programs, while adolescents prefer music variety programs. Children from lower socioeconomic families spend more hours watching television than other children.

Other Interests

One of the earliest studies of vocational interest was made in 1898 when Monroe asked eight-to-ten-year-old children in Massachusetts what they would like to do when they grew up. The greater majority of girls indicated teaching, while only 8 percent expressed interest in other professions such as medicine and law. This was in contrast to Jersild's[83] finding when he studied 400 eight-to-twelve-year-old children. About half of Jersild's subjects expressed an interest in occupations within the professions. Witty[84] noted that even though the vocational interests of elementary school children

were often unrealistic, such strong interests may be usefully exploited in planning programs to motivate children.

In a study of play and recreation, Witty[85] reported that games and sports of all kinds were mentioned. More boys than girls reported making things such as tables, shelves, and clothing. More girls than boys were taking music lessons and playing musical instruments. A considerable number of students studied had home chores; more girls than boys had duties such as washing dishes. Reading time was about an hour and a third daily, more girls than boys reading and more books being read by girls. Fiction, especially science fiction, was enjoyed by boys, while girls enjoyed romance, mystery, and humor. In reading newspapers, the comic strips of the superman and thriller variety were enjoyed by boys more than by girls. Boys reported reading more magazines than girls, who read more stories from books.

MacAuley[86] studied the social studies interests of grades one, two, and three pupils in eastern Pennsylvania. First graders were found to express interest about environments different from their own; second graders wanted information about their country's history; third graders inquired about the life styles of people in other countries. Jobe's[87] study of ninety boys and girls from grades two, four, and six showed that when given freedom to select topics for creative writing, main areas of selection were fantasy, animals, and personalities, in that order.

Sources reviewed above showed that girls expressed preference for teaching over other professions. More boys than girls had

other leisure interests such as making things and sports, but more girls than boys played musical instruments and took music lessons. In social studies, interest in other peoples and how they lived was dominant among elementary school children. When allowed to select their own creative writing topics, topics selected predominated in fantasy, animals, and personalities.

Interest Indices

Curiosities

Curiosity is demonstrated by wonder and an interest to find out more about something. Hence, curiosity is a promoter of learning and more powerfully of self-teaching. Watson observed, "Curiosity certainly plays a basic part as an instigator to learning."[88] Children are incurably curious, wanting to look, touch, and ask about whatever they come across. Rogers made an insightful observation when he stated, "Children are living question marks. Froebel and Pestallozzi wisely provided training programs to capitalize for educational purposes this insistent curiosity."

Investigators of children's curiosities have used various methods. Byers[89] tape recorded unstructured sharing time of first graders in rural and urban communities. When ranked, the most frequently expressed curiosities were science and nature, with boys showing slightly more interest than girls. Thompson[90] collected children's questions from teachers and parents and found an incredible variety. Two hundred twenty-eight questions (the highest) were recorded for geography, and seven for penmanship. Nature study, music, and art appreciation were among sixteen other headings reported.

Thompson concluded that the scope of thinking in the average classroom was broad. He suggested the use of children's questions as a basis for determining the curricula and methods of approaching subject matter. Davis[91] analyzed the questions of children between three and twelve collected by their mothers. Eighty-three percent of the questions seemed to result from the immediate situation, compared with 11 percent from remote events. The curiosity of boys and girls indicated by their questions seemed to be very similar, with differences increasing with age. Preoccupation with aspects of human life, causality, classification, and social relations was common.

Beggs[92] reported a study in which questions of children under eleven were collected. Among the topics on which questions were asked were the sun, stars, moon, lightning, and other natural forces. Other questions dealt with the earth--its shape, size, interior, etc. Next to desire to know about natural science was curiosity about making things, animals, and plants; present-day practices and their origin were also of interest to the children.

In a comprehensive study of children's questions, Baker[93] analyzed 9,280 questions written by 1,531 elementary school children in grades three through six. As in the other studies, curiosity ranged over broad areas: from animal life with 12.2 percent, to riddles with 0.23 percent, and daydreaming with 0.18 percent. The investigator noted that breadth of curiosity expanded as the grades advanced; that many curiosities were common through grades three to six; that children were interested in the origins and causes of

natural and social phenomena; that nearly 50 percent of questions fell within the general social studies area; and that nearly 38 percent called for scientific information. He concluded that to meet the subject matter needs of children in the elementary school, teachers need a rich background of information in the social studies and biological and physical sciences.

Rudman[94] studied 6,313 fourth through eighth grade children by asking them to write the questions they would ask a very good friend who could answer any question. Questions dealing with religion, ethics, and values ranked highest, followed by those dealing with school; science questions ranked third. A dramatic increase in concern with personal problems, especially those dealing with boy-girl relationships and vocations, was noted as children approached puberty.

Dawson[95] found that curiosity about animals decreased as children increased in age. Symonds asked adolescents to rate fifteen areas of life concerns in the order in which they would like to learn more about them. Girls showed more interest in personal accomplishments and relationships, while boys showed greatest interest in health, safety, money, study, recreation, and civic affairs. Concluding his review of literature on curiosity, Crippen noted, "In general, it appears that children's curiosities range from the wonders of nature and animals during the early elementary years to a more pronounced interest in personal and social relationships as they approach puberty."[96]

It is interesting to note the relationship between curiosity and fear. Among the objects young children fear are animals, and at the same time they constitute an object of curiosity. William James observed that "curiosity and fear form a couple of antagonistic emotions liable to be awakened by the same outward things." Other studies with infants, such as those of C. W. Valentine,[97] showed that certain noisy toys both fascinated and frightened infants.

Crippen[98] reported from his study of 235 Kenya elementary school pupils that applied science ranked highest as the area of greatest curiosity. The pupils also expressed curiosity about religion, academics, animals, human behavior, and languages.

Summarizing, curiosity, a quality common to children, is characterized by wonder and interest to find out. Collection and analysis of children's questions are among procedures used in studying curiosity. Results of studies showed broad areas about which children were curious. It ranged from wonders of nature and animals to personal and social relationships. There appears to be a relationship between curiosity and fear.

Wishes

A study of a child's wishes can reveal valuable information about his personality, interests, and ambition. Rose Zeligs[99] observed that the wish is a useful instrument for studying character, personality, and knowledge. Hurlock said:

> A study of children's wishes gives clues to their interests. When asked what they would like to have if they could have anything they wanted, most state frankly wishes for things which interest them most. An analysis of those wishes gives

> a clue to the personality of the child, as well as state of maturity he has attained.[100]

Children's wishes reveal their personality but even more importantly they reveal their own concept of life, their inner longings, beliefs, ambitions, and dreams. Jersild, an authority in children's wishes research, noted:

> A person's wishes directly or indirectly reveal something concerning his outlook on life and what he wants from it. For this reason, findings with regard to wishes children express might tell us much that is significant for education.[101]

Wishes are concerned with the ambitions of the wisher. They are, therefore, based on his experience and knowledge. The background of the wisher, therefore, has everything to do with the wishes. In this regard, Wilson said: "Culture and socioeconomic background as well as chronological age affect people's wishes, probably both in very early and in late life."[102]

Many investigators of children's interests have used the "wish technique," asking the child to name three wishes which he would ask if they would come true. Zeligs[103] investigated the wishes and worries of twelve year olds by identifying their most common wishes. Personal possessions and pleasure, social, family, and welfare matters were most frequently mentioned. With regard to sex differences, Zeligs found that while boys were interested in personal development and political progress, girls wished for family welfare. The thirty-five most commonly expressed wishes constituted 68 percent of all wishes expressed. They included desire for world peace, health, and long life.

Studies by Paul Boynton,[104] Milgram,[105] and Witty[106] showed that early grade children's wishes were dominated by material objects and possessions. Jersild's study,[107] while confirming the results mentioned above, showed that such wishes decreased as grades advanced. He reported that 55 percent of five and six year olds, 48 percent of seven and eight year olds, 26 percent of nine and ten year olds, and 14 percent of eleven and twelve year olds wished for material possessions.

In another investigation, Jersild[108] studied 2,248 children from all twelve grades representing large city, small city, suburban, and small town communities in the Midwest, South, and around New York City. The Springfield Interest Finder was administered to all the children and among other things, Jersild found that younger children expressed more wishes for material possessions than older children; older children expressed more concern about others, though the concerns were usually self-centered since they involved people whose fortunes were tied up with the children's. He observed:

> Our findings suggest that young people are so closely bound to currents in their own personal lives that even after a trying war [World War II] it occurs to hardly any of them to devote one of their three wishes to peace for all mankind.[109]

Jersild commented that his findings were one indication of the difficulty education faces in encouraging children to encompass realistically within their own thinking the fact that "their own welfare and the welfare of their immediate community are tied in this atomic age to the welfare of all mankind." When Jersild compared his findings with those of Serhan,[110] he observed that children

did not always relate needs and worries to their wishes. He commented: "It occurs to very few children who are burdened with fears to wish that they could be rid of them or could acquire the power within themselves to cope with them."[111]

Wishes for material possessions appear to decrease as children grow older. Milgram[112] noted that 52 percent of the wishes of first graders were for pets, toys, and food, while only 12 percent of fourth graders and no sixth graders wished for such things.

As children grow older, wishes for material possessions become replaced with more abstract wishes such as for happiness or well-being, vocational and educational success. The truth of this developmental concept is well illustrated in Krumgold's And Now Miguel.[113] According to Miguel, all that his seven-year-old younger brother needed for happiness was a fish, six inches long. But for Miguel, who was older, life was "a great deal of trouble." The longing to follow the sheep with the elders in his family was a desire so great that it over-shadowed all other wishes. Milgram[114] found that whereas 8 percent of first graders included vocational and educational aspirations in their wishes, 20 percent of fourth graders did. Gray[115] found only fifth and sixth graders expressing wishes relating to education. Zeligs[116] noted that wishes to succeed in school ranked third among sixth graders, while those for health ranked second.

Wishes for the well-being of parents were noted as being high among grades five and six children in Jersild's study.[117] According to Zeligs,[118] wishes for family health ranked second, family happiness fourth, and long life for the family fifth, while those for

father's success in business ranked sixth. Jersild[119] and Boynton[120] both noted a higher frequency of wishes for better living conditions among older than among younger children. Wishes for animals which were common among lower grade children tapered off in the higher grades, according to Witty.[121] Among upper grade children, wishes for benefits for others, few among lower grade children, increased according to Jersild[122] and Milgram.[123]

Studies by Nelson[124] and Gray[125] showed that black children, especially younger ones, wished for a car more than anything else. This wish for a car, 36 percent in first grade, decreased to 6 percent in sixth grade, again illustrating the effect of age.

Regarding sex differences, Witty[126] and Zeligs[127] reported that girls made more wishes for clothing and dolls than did boys, who preferred trains. Girls wished for school success more than boys. When Witty and Kopel[128] studied the dreams and wishes of elementary school children, they found among K-8 children a preponderance of wishes for recreational equipment; 37 percent of all wishes were for material objects. Boys expressed more wishes for wealth, travel, and proficiency, while girls ranked travel higher than wealth. As in the Jersild study, Witty and Kopel found that wishes for success or proficiency in school were infrequent.

Speers[129] compared the wishes of rural and city children. He found that rural children had fewer choices because of a narrower sphere of activities. Boys wished to have more things than girls, while the wishes of girls related more to other people than those of boys. Younger children wished for more things than older children.

Crippen[130] found from his study of Kenyan children that almost a third of the total wishes were for specific objects or possessions, while wishes for education and employment were also frequent.

In summary, the expressed wishes of a child reveal aspects of his personality, particularly what interests, hopes, and ambitions he has. Studies discussed above show that the wishes of younger children are dominated by material objects such as pets, sporting and games equipment, clothes, and toys. As children grow older, wishes become more abstract and socially conscious. Children do not always relate their needs to their wishes. Some studies indicated that girls wished for more things, especially clothing, than boys; they also expressed more wishes for success in school.

Favorite Activities

An individual's personality can partially be revealed in leisure interests and activities. Based on what is available, children tend to select those activities which are most interesting and stimulating to them. Thus the favorite activities of children are those they most enjoy doing and to many children, this is play in one form or another.[131] From adult perspective, this might look like work, for instance a child dressing himself; but in reality, this might be play to the child. Hurlock said that:

> Play is a term so loosely used that its real significance is apt to be lost. It relates to any activity engaged in for the enjoyment it gives, without consideration of end result. It differs from work, which is an activity toward an end, in which the individual carries out the activity not because he enjoys it, but because he wants the end result.[132]

Sutton-Smith[133] suggested that in his play the young child is seen as revealing his "world construction" and the time-space pattern of his life; he tries in play to construct that life-space. The concept advanced by Stone[134] that play draws the child into the larger society is even more suited to our purpose in this study.

Gessell and Ilg's[135] developmental chart indicated that six year olds elaborate and expand five-year-old play interests to include independent play. Seven year olds show more intensive interest in some activities and have fewer new ventures. Eight year olds prefer group play and variety. Separate play for boys and girls begins to develop. The nine year old plays hard, often to the point of fatigue. He enjoys planning his own activities, organized clubs, and collecting things such as stamps. Jersild and Tasch[136] found outdoor play, games, and sports the favorite activities of the elementary school child. In his study of first and second grade girls, Lehman[137] noted that doll play ranked highest among black and second highest among white first and second grade girls. After age twelve, interest dropped drastically in doll play among girls in both racial groups.

Foster[138] reported that games involving catching, throwing, and kicking were popular throughout the elementary school. Fleeing and chasing were also popular among elementary school children, with a peak among seven-year-old groups. By age seven or eight, interest in hide and seek, folk dances, and ring games was reported to have dropped sharply. Furfey's[139] study of New York boys showed that high-activity games such as cops and thieves and tag were very

popular among young boys, but interest in such games dropped sharply at the onset of puberty. Lehman and Witty[140] found similar results in their study of over 5000 children. Girls were reported to lose interest in cutting paper things, running races, skipping, and tag games at the approach of puberty. McCullough[141] found watching television the favorite activity of upper-elementary children.

When Selig[142] asked more than 200 fourth graders what they would do if they could do anything they wanted, play activities ranked just slightly higher than school work, followed by reading, then helping at home with chores, and lastly working for money. From a study of some Kenyan elementary school pupils, Crippen[143] reported that academics was the most frequently named favorite activity by all pupils, followed by home duties, games, and sports.

In summarizing the sources reviewed above, we note that leisure-time activities represent a person's area of interest. To many children, this is play. What adults consider work might be play to children, who learn and grow in social understanding from play. Children have different play interests from age to age. Outdoor and high-activity games involving fleeing, catching, and kicking, which are popular among elementary school boys, lose their attraction at the onset of puberty. Doll play, much enjoyed by girls, also becomes uninteresting to them at about age twelve. Some studies also showed that studying, reading, and home chores were among favorite activities named by children.

Concern Indices

Concerns include those happenings or situations which make a person uneasy. Thus the concerns of the learner are just as important as his interests. Indeed, a concern can be a source of motivation, making the learner want to learn about a certain happening or object. In this context, Fantini and Weinstein observed:

> Irrelevance occurs if the concerns of the learners are ignored. Concerns are the most persistent, pervasive threads of underlying uneasiness the learners have about themselves and their relation to the world.[144]

Studies of concerns have included aversions, fears, worries, inappropriate activities, and other harbingers of anxiety. Below, literature and research related to aversions, worries, and fears are reviewed.

Aversions

Aversion can be considered as a negative interest, but whereas interest attracts a person towards itself, aversion repels. Concerning human interests, Guilford stated:

> This conception is sufficiently broad to include negative attractions (aversions) as well as positive ones, which means that dimensions in the domain of interest can be bipolar. The definition adopted indicates an obvious relation to motivation. This is as it should be.[145]

Fryer observed that living creatures respond to the environment by active degrees of interest or aversion, by movements toward or away from the exciting stimulus.[146] This phenomenon should be of relevance to education.

Zeligs[147] found that among sixth graders some of the most annoying situations at home included making parents unhappy,

scoldings, and spankings. Boys indicated that they hated being scolded and even more being spanked for things they did not actually do. Girls disliked spankings and making parents, especially mother, angry. The most frequent responses from boys, when asked to list things that annoyed or irritated them, were: "being blamed for something I didn't do," "people who cheat," and "unfair things." Among girls, the most frequently mentioned were the following: "seeing people get killed," "being accused of something I didn't do," and "being called a cheater."

Thomas'[148] study showed that among Indonesian children, 4 percent of the fourth graders, 5 percent of the fifth graders, and 19 percent of the sixth graders disliked an unruly class. Nine percent in the fourth grade, 14 percent in the fifth grade, and 20 percent in the sixth disliked quarreling.

Zeligs[149] reported that sixth grade boys were most easily irritated by bicycle breakdowns, bad smells, and obligations to do things they would rather not do. Girls hated being unable to play outside, having their hair pulled, bicycle breakdowns, and flat tires. Crippen[150] found that among Kenyan children studied, physical aggression was the issue of greatest aversion.

Differences appear to exist between the dislikes of younger and older children. Jersild[151] noted that 13 percent of five and six year olds disliked animals and bugs, while only 3 percent of eleven and twelve year olds did. Older children's aversions seem to be concerned more with disturbances in the personal/social

relations plane, such as quarreling, unruly behavior, and undesirable traits in people.

Summarizing, aversion is a negative interest leading the individual to avoid the object or phenomenon. Animals, making parents unhappy, punishment considered unfair, quarreling, and the bullying of younger by older children were among the major areas of aversion reported in research literature. Younger children disliked animals and bugs more than older children, who disliked disturbance of personal social relationships.

Fears and Worries

Anxiety, a complex emotional condition, can be the result of a combination of some or all of fear, worry, apprehension, insecurity, and suspicion, among other emotions. The anxiety of young children is dominated by fear of things present or imagined, but as they grow older, "naked fear" changes to worry. Watson said that the term worry "aptly expresses the shift away from overt naked fear that takes place during childhood in the direction of more complex derivatives from it."[152] It is probable that inability to understand the concept, "future," reduces worry for the younger child.

Hayman[153] studied children aged two and six and found that the most common fears were of dogs, doctors, storms, and darkness. When Jersild[154] asked the following: "Tell me about things that scare you, things that frighten you, tell me what makes you afraid," more than a quarter of five and six year olds named various animals; 20 percent mentioned supernatural events and beings; 11 percent named the dark, being alone, strange sights and deformities of

of various kinds; about 6 percent mentioned nightmares and apparitions.

Witty[155] found the greatest fears of grades one and two children to be animals followed by the dark, storms, and fire. According to the results of Maurer's study,[156] children aged five and eight feared animals most, then machines, supernatural beings, people who might harm them, and the dark. Pratt[157] found that among K-4 children, fears included fear of nature, such as storms and wind; fears of weapons, electricity, fire, vehicles, the dark, the supernatural, and graveyards.

Studies of older children reveal a shift from simple fears to more sophisticated emotions such as worry. Angelino[158] reported from a study of 1100 pupils aged between nine and eighteen that the five greatest sources of worry were related to school, safety, social relations, animals, economical and political matters. Pintner[159] found that the greatest worry of grades five and six pupils was failing a test. Zeligs'[160] results showed that "school marks and reports" constituted the second greatest worry of sixth graders. Health worries were also common among upper-elementary pupils, as reported by Pintner and Lev.[161]

In Crippen's[162] study using Kenyan children, he reported that fear of animals was the most frequently mentioned by all children studied. Anxiety related to death accounted for nearly one-fifth of the anxiety responses. Illness ranked high; academics, natural hazards, future employment, and aggression were also reported as causing anxiety. Helms and Turner[163] noted that during the middle

years of childhood "fears of personal safety and animals decline while fears relating to school, social relationship and economic difficulties increase."

In summarizing the sources reviewed above, we note that anxiety is usually in the form of "naked fear" for young children, but that as children grow older and are able to understand the concept of future, worry becomes an important emotion. Animals, the dark, and natural disasters such as storms were frequently reported as causes of fear in younger children. For older children, worries relating to school success and social relationships were often reported.

Summary

In this chapter, a review of literature and research related to the study was presented. Sources reviewed showed the following: theories about the origin of interests were related to theories of basic human needs; variables that affect interest development include age, sex, and physical location; children's interests have been identified through their reading and television preferences, their curiosities, wishes, and favorite activities. Children's concerns include their aversions, worries, and fears.

Several studies reported that both age and sex affect reading interests. Before the age of eight or nine children enjoy fairy tales, stories about animals, nature, and fantasy. From about the age of nine, war, adventure, travel, and mystery stories become more popular with boys, while girls at this stage prefer western and animal stories, until adolescence when love stories predominate the reading

interest of girls. Television viewing, reported as the elementary child's favorite activity, depletes time devoted to other interests. Younger children enjoy situational comedies and cartoons, while older children prefer family situation comedies, and music variety programs.

Reports from studies of children's curiosity showed much variety, but science, nature, social relations, religion, animals, and plants were among the most frequently mentioned areas of curiosity. Curiosity about animals and nature appeared more common with younger children, whereas personal and social relationship matters seemed to excite the curiosity of children as they approached puberty. Children's wishes were dominated by personal possessions, although older children also expressed more wishes about school success, social relationships, and the future. Apart from television, the favorite activities of children included play in various forms, reading, and helping with home chores.

Among the aversions of elementary school children, research reviewed above identified the following: being unjustly accused or punished, scolding or spanking, and making parents unhappy, which appeared to be particularly disliked by girls. Older children were reported as showing more aversion to a disturbance in personal social relationships than younger children. Apprehension in younger children took the form of fear of animals, the supernatural and the strange, darkness and storms, while worries about school work, social relationships, and the future were reported for older children.

CHAPTER IV

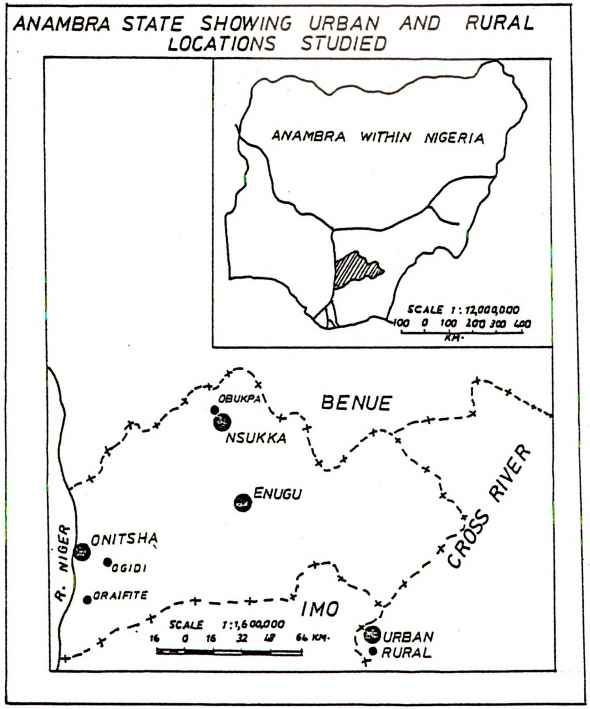
METHODOLOGY AND DESIGN

The purpose of the study was to determine the interests and concerns of elementary school children in Anambra state, Nigeria. Six concepts: Curiosities, Wishes, Favorite Activities (interests), Aversions, Worries, and Fears (concerns) were used as measuring indices to gather data. An open-ended questionnaire embodying the above six concepts was the major research instrument which was administered to the subjects by means of structured individual interviews. This chapter is divided into four sections: the Population and Sample, Research Instruments Used, Procedure, and Research Design.

Population and Sample

The population for this study consisted of the elementary school pupils in Anambra state, Nigeria, the investigator's home state. The sample, made up of 530 pupils, was selected in such a way as to enable the investigator to observe the effects of the following three variables: physical location, age, and sex on the expressed interests and concerns of the subjects.

In order to examine the effects of physical location, samples were taken from rural and urban locations. Three rural and three urban locations were selected in order to include as diverse


ANAMBRA STATE SHOWING URBAN AND RURAL LOCATIONS STUDIED
ANAMBRA WITHIN NIGERIA
SCALE 1:12,000,000
100 0 100 200 300 400
KM.
OBUKPA
NSUKKA
BENUE
ENUGU
CROSS RIVER
ONITSHA
OGIDI
ORAIFITE
R. NIGER
IMO
SCALE 1:1,600,000
16 0 16 32 48 64 KM.
URBAN
RURAL

geographical sections of Anambra state as possible. The selection of the locations was random, and those selected were: Oraifite, Ogidi, and Obukpa (rural); and Onitsha, Enugu, and Nsukka (urban). These locations can be identified on the map on page 75.

The predominant occupation of rural Nigerians is subsistence agriculture, so the socioeconomic background of all the rural subjects was approximately the same. On the other hand, urban centers in Nigeria have more socioeconomic diversity among their populations. Two major socioeconomic groups are usually identified: those in the so-called high socioeconomic group generally referred to as the "elite," and the remainder of the urban population who fall into the low socioeconomic group. The elite include senior civil servants, university professors, high-level professionals, and prosperous businessmen. Children from such "elite" families are more commonly found in certain schools than in others.[1] The low socioeconomic group consists of traders, low-level professionals, junior civil servants, artisans, and industrial workers. Their children are in the majority in the schools.

The investigator decided to draw samples from two schools in every selected urban area on the basis of one of the schools enjoying the patronage of high socioeconomic families. This way a representation of both socioeconomic levels was assured. Two schools were therefore selected from each of the three urban areas, making a total of six urban schools. Two schools were also selected from each of the three rural areas in order to maintain comparable figures

with the urbanites; this made a total of six rural schools. Table 4.1 shows how the schools were selected.

Table 4.1.--Selection of schools from urban and rural locations.

Urban		Rural	
Onitsha	2 schools	Oraifite	2 schools
Enugu	2 schools	Ogidi	2 schools
Nsukka	2 schools	Obukpa	2 schools
Total	6 schools		6 schools
Grand Total		12 schools	

Two other variables, the effect of which the investigator wished to study, were age and sex. Officially, elementary schooling in Anambra state is for six-to-twelve-year-old children, but in practice many older children are found in schools. The investigator identified two age ranges--seven to nine and eleven to thirteen--in order to include roughly children from the early and late elementary classes (i.e., grades). To enable examination of the sex variable, approximately-equal numbers of boys and girls were randomly selected from within the delimited age ranges from the locations described above. Table 4.2 shows the pattern with which pupils were selected to reflect the physical location, age, and sex variables.

Table 4.2.--Number of pupils selected in rural and urban locations according to sex and age set.

Location	School	Sex		Total No. of	Age Set	
		Boys	Girls	Pupils	(7^{y}-9)	(11^{o}-13)
Urban						
Onitsha	1	23	23	46	24	22
	2	22	22	44	22	22
Enugu	1	22	23	45	23	22
	2	22	21	43	22	21
Nsukka	1	22	21	43	21	22
	2	22	22	44	22	22
Rural						
Oraifite	1	22	22	44	22	22
	2	23	22	45	22	22
Ogidi	1	21	23	44	22	22
	2	23	21	44	22	22
Obukpa	1	22	22	44	22	22
	2	22	22	44	22	22
Total		266	264	530	266	264

Key: y = younger children o = older children

Selection of the Subjects

The investigator visited selected schools several times before the study. From the school registers the investigator extracted the names of all the children within the target age sets in all the classrooms selected for the study. Then the names were sorted according to sex within each age set. Next, the investigator randomly selected approximately the same number of boys and girls

from each age set (about eleven children in each case). This procedure was used in selecting the 530 pupils who made up the study sample taken from twelve schools in three rural and three urban locations in Anambra state, Nigeria. Each pupil was assigned a number. Table 4.3 shows the number of pupils interviewed from rural and urban schools according to age and sex.

Table 4.3.--Number of pupils interviewed in rural and urban schools according to age and sex.

Location	School	Age				No. of Pupils
		Younger Age 7-9		Older Age 11-13		
		Boys	Girls	Boys	Girls	
Urban						
Onitsha	1	12	11	11	12	46
	2	10	12	11	11	44
Enugu	1	11	11	11	11	44
	2	11	10	11	11	43
Nsukka	1	11	11	11	10	43
	2	11	11	12	10	44
Total urban	6	66	66	67	65	264
Rural						
Oraifite	1	12	10	11	11	44
	2	11	11	12	11	45
Ogidi	1	11	11	10	11	43
	2	10	12	12	10	44
Obukpa	1	11	11	11	11	44
	2	11	11	11	11	44
Total rural	6	66	66	67	65	264
Grand total (urban & rural)	12	132	132	134	130	528

Research Instruments Used

A six-item questionnaire was used to interview the children, and their responses were recorded on a Pupil Response Form. A code form was also used to classify the responses.

The Questionnaire

A six-item open-ended questionnaire was used to gather data. The nature of this questionnaire was considered suitable for this study for the following reasons: It had been successfully used in a similar study and it contained three indices each for measuring the interests and concerns of subjects. Further, its open-ended format was suited to one of the goals of this study, which was to obtain broad-based information about children's interests and concerns. It was also reasoned that an open-ended questionnaire would afford more freedom to children for expressing themselves without the restrictions which a more structured instrument would impose. This questionnaire was based on an earlier one used by Crippen,[2] and was adapted and modified in the following ways to meet the goals of this study.

1. Crippen's six items consisted of curiosity, wishes, favorite activities, aversions, anxieties, and inappropriate activities. This investigator used the first four concepts and subdivided anxiety into the categories of worries and fears. Six concepts were thus used.

2. Minor modifications were made in the wording of the questionnaire, especially with regard to the number of responses

expected. Crippen asked for only one response for each item except in the case of wishes, where he asked for three. This investigator provided for as many as three responses for every index.

The questionnaire was translated into Igbo, the language spoken in Anambra state, Nigeria. Using the translation, trained interviewers gathered data from the children by means of the structured interview technique. The children's responses were recorded on the Pupil Response forms.

The questionnaire was validated by being used in a pilot study, described later in this chapter. The pilot study also enabled the investigator to revise and modify the structure of the questions and to test the effectiveness of the translation.

Language Translation of the Questionnaire

The questionnaire was translated from English into Igbo, the language of the Igbo people of Anambra state. This was done to ensure (1) optimal understanding of the questions by the subjects and (2) ease in communication between the pupils and the interviewers. Following is a description of the translation procedure:[3]

1. The investigator briefed three experienced Igbo teachers (two of them examiners in Igbo for the West African Examinations Council), on the nature and purposes of the study. Then she asked them to translate the questionnaire independently. Emphasis was put on meaning rather than word-for-word translation. The investigator, a native Igbo speaker herself, also did a translation of the instrument.

2. Later, the three teachers and the investigator sat together and carefully discussed the translations, changing, modifying, and expanding. The version agreed upon at that point was circulated to each translator, who was asked to translate it back into English without the benefit of the original English version.

3. Meanwhile, during the interviewer training sessions which the investigator was conducting simultaneously, trainees[4] were asked to examine this Igbo version of the questionnaire as to meaningfulness and clarity. They were invited to give suggestions for improvement.

4. Last, the investigator held a final open session with the three translators. This meeting produced the final translation which was used for the pilot and the final study. The Igbo and the English versions of the questionnaire are included in Appendix A.

The questionnaire was intended to elicit some special interests and concerns of each child. Since it was realized that a single response may not adequately represent the actual interest or concern of a child, the subject was encouraged to give as many as three responses per item.

1. The first concept was curiosities. In some families, children are discouraged in a variety of ways from being curious or inquisitive. When the home atmosphere is too authoritarian, children might be too frightened to ask questions. Sometimes parents are so preoccupied with their own problems and anxieties that they might ignore children's questions, be irritated by them, or when they answer, be so sarcastic or absent-minded that the answers are

meaningless. The interviewer encouraged the subjects to recall and mention things/phenomena about which they wanted to know more.

2. Wishes was the next concept. The pupils were asked to mention a maximum of three things they would most wish to have or to see happen.

3. The next item was favorite activities. Pupils were encouraged to select, out of common daily activities, those that they most enjoyed doing. The interviewer asked the pupils to mention those activities they would like to do if they were free to do anything they wanted.

4. The fourth concept was aversions. This was the antithesis of item 3. To solicit data on this the pupils were reminded that just as they enjoyed doing certain things, they might similarly dislike doing other things or seeing certain things done. They were encouraged to reveal things that are done, happen, or are said which they intensely disliked.

5. The next item was worries. Children have worries of various types and magnitudes, depending on their age and circumstances. Pupils were asked to recall situations/things that made them afraid, apprehensive, or uneasy.

6. The sixth concept was fears. Pupils were asked to mention situations/objects that made them afraid.

Pupil Response Form

The Pupil Response form was used by the interviewers to record the pupils' responses. This was a modification of the one

used by Crippen. Crippen's form provided for the pupil's number, school, class (i.e., grade), date, and age. It also had the numerals 1-6 written along the margin, to represent the number of items in the questionnaire, and beside each numeral were lines for recording the responses. In addition to the above, this investigator also wrote the item name beside each numeral (e.g., Item 1--Curiosity, Item 2--Wishes, and so on). This was designed to minimize the shuffling of papers in search of the item name during the interview. Since three responses were allowed per item, three lines were allowed under each item and the letters a, b, c written beside the lines.

A copy of the Pupil Response form is included in Appendix A.

Code Form

The code form was used to code (i.e., to classify) the responses according to the table of categories, which was constructed from the pilot study. The responses for each item were coded separately. The form has space for the coder's name, the name and number of the item being classified, pupil number, and the category to which the response is assigned. A copy of the code form is included in Appendix A.

Procedure

Training the Interviewers

After the schools were selected, it became clear that the same interviewers could not handle all the subjects. Two training bases were consequently established at Onitsha to train interviewers

for schools in Onitsha, Ogidi, and Oraifite, and at Nsukka to train interviewers for Nsukka, Enugu, and Obukpa schools. At each base the investigator trained twelve interviewers. These were students drawn from a Grade II Teachers College.[5] The students were elementary teacher trainees and had been randomly selected from a group who had previously taught in the elementary school.

The investigator held many training sessions with the two groups. The early sessions were devoted to briefing the trainees on the nature and purpose of the study. Subsequent sessions were used for discussion of both the Igbo and English versions of the questionnaire, interviewing atmosphere, and interviewing techniques. Demonstrations and explanation of interviewing techniques were also given. Some of the most frequently emphasized points during interviewer training included (1) creating a friendly, relaxed atmosphere to enable the child to be open with the interviewer; (2) giving support and encouragement to the child by such means as the use of body language; (3) carefully studying the questionnaire; and (4) attending more to the child than to paper work. The following written instructions were used during interviewer training sessions:

Written Instructions
for
INTERVIEWER TRAINEES

Purpose: The major purpose of the interview is to get the children to respond to the questions in a meaningful way. This means that every child must be relaxed enough to trust the interviewer.

Interviewing children is an art which requires patience, understanding, and real interest in the child. Note the following especially:

1. The interviewer should establish a rapport with each child so that the child feels at ease with the interviewer before beginning to ask the questions.

2. A low friendly tone of voice and a cheerful countenance would help to reassure the child.

3. The interviewer should give time, encouragement, and support to each child. Everything should be done to encourage openness.

4. It is important to be thoroughly familiar with the questions so that the interviewer focuses attention on the child rather than on reading the questions.

5. Attention should be on the child to encourage him to answer meaningfully but without pressure or undue suggestion.

6. If one question fails to elicit a response after appropriate encouragement the interviewer should go to the next question and later return to the first one.

During the training sessions, the interviewers practiced the techniques among themselves. Sessions held after the pilot study were very valuable for discussing interviewers' reactions to the instruments and for reviewing previous instructions.

The Pilot Study

A pilot study was conducted in two schools, a rural and an urban school, in order to (1) provide practice in actual school settings for the interviewers, (2) test the questionnaire for clarity and reliability, (3) provide data for constructing categories needed to classify final responses, and (4) have opportunity to field test the entire study procedure. Expert validation of the

instrument was obtained by discussing the contents and areas of children's interests and concerns with teachers and professional educators. The procedure mapped out for the final study was followed during the pilot study so as to afford opportunity to foresee any problems that might arise later. The procedure described below is for both the pilot and the final study.

Ninety-one children were used for the pilot study; half were from a rural school and half from an urban school. An equal number of children was selected to reflect the three variables of age, sex, and physical location.

Data Collection: The Interviews

Preparations for interviewing the children in their schools were made early so that the interview area was arranged and teacher cooperation ensured. The investigator arranged to have the interviewers transported to the school at an appropriate time each interviewing day. They were received on arrival by the investigator, who took them to the demarcated interview area. For the pilot as well as for the final study, interviews were held out of doors, under the shade of trees within the school compound. A chair and table or chair with writing rest was provided for the interviewer, while the subject could sit or stand as he wished. Arrangements were such that each child was interviewed privately.

Since there were twelve interviewers at each base, every interviewing session was started with twelve children. Just before a session the teacher whose pupils were to be interviewed would pick

out twelve pieces of paper from the box which had been placed on his table[6] and would send the twelve pupils whose names were on the papers across to the investigator. The investigator then assigned them randomly to the twelve interviewers. The pupils were interviewed individually. The interview started with a brief, socially complimentary monologue designed to reassure and relax the subject. Interviewers were encouraged to touch or hold the pupil if they thought this necessary. The interviewer explained that he wanted to ask some individuals in the class some questions, but that there was no compulsion to answer. He explained that anyone who did not wish to participate was free to withdraw. Depending on the pupil's reaction, the interviewer posed the first question. Interviewers were encouraged to be so familiar with the questions that they did not actually read the questions but occasionally glanced at the paper while talking to the pupil. It was thought that this would reduce fear and suspicion. As the child began to talk, the interviewer recorded the response in short English words, phrases, or sentences on the form which was provided.[7] All the 91 subjects interviewed for the pilot study participated willingly. Of the 530 subjects selected for the final study, only one refused to participate, saying he did not know what to answer; one other child was sick. Some subjects did not give three responses to every item, and interviewers were instructed to refrain from applying pressure if after one or two responses the pupil appeared reluctant to give more. The majority of children interviewed, however, gave three responses.

When a pupil had been interviewed he returned to the class and the teacher picked out a fresh piece of paper from the box and sent another pupil across to be interviewed. This way every interviewer questioned children of both sexes and both age sets.

Interviewing a child took from ten to twenty minutes, and each interviewer questioned three or four pupils for the pilot study and between six and eight pupils per interviewing day during the final study. The pupils' responses were recorded on forms which were provided.

All the interviewers who took part in the pilot study also participated in the final study. In both the pilot and final study, each group of twelve interviewers questioned rural and urban children, boys and girls, and children from both age sets. Altogether, 528 children were interviewed. After the collection of the responses, the next stage was to construct categories into which the responses would be coded (i.e., classified).

Construction of the List of Categories

Prior to the study, the investigator had discussed the nature and purpose of her study with two lecturers in Education at the University of Nigeria, Nsukka, and requested their assistance in building the categories. Soon after the pupils' responses from the pilot study were collected, the investigator met with the two lecturers and together they examined the responses. They pooled all the responses for each index, then tried to group them according to content. For example, after pooling the responses for Curiosities,

they found that many of them were concerned with issues in applied science, biological phenomena, physical phenomena, supernatural powers, human and animal behavior, and misfortunes and accidents, so they decided to include these as category headings. In a similar way, they developed tentative category tables for the other five indices.

A reliability check.--At this stage, twenty-five Pupil Response sheets were randomly pulled from the pilot study response pile and submitted to a group of college students for classification according to the tentative category tables. They were instructed to keep tallies and notes of responses which did not fit into any existing category. The results of this exercise were incorporated into revising the categories. The major criterion for setting up a category was that at least ten responses had to be classifiable under it.[8] The final list contained seven categories for Curiosities, twelve for Wishes, nine for Favorite Activities, nine for Aversions, and fourteen for Worries and Fears. The major category headings for the different indices are set out below, but a detailed description of the kinds of responses, including sample responses, classified under each category is included in Appendix B. This list of categories was used to classify responses in both the pilot and the final study.

Index One: Curiosities

Categories

1	Technology & Applied Science
2	Biological Phenomena
3	Physical Phenomena
4	Human & Animal Behavior
5	Supernatural/Religious Matters
6	Misfortunes & Accidents
7	Miscellaneous

Index Two: Wishes

1	Personal Material Possessions
2	Success in School
3	Travel
4	Ambitions for Vocations & Future Careers
5	Personal & Family Welfare
6	Others' Welfare
7	Food
8	Sports, Playing & Entertainment
9	Miscellaneous
10	To Be Good
11	To Live Long
12	No Death

Index Three: Favorite Activities

1	Home Duties & Chores
2	Playing, Sports, Games
3	Making Things
4	Reading/Studying
5	Eating
6	Excursions/Exploring
7	Attending School
8	Social Activities/Entertainment
9	Miscellaneous

Index Four: Aversions

1	Aggression/Violence/Injustice
2	Conflict/Punishment by Significant Adults
3	Dishonesty
4	Disasters
5	Doing Chores
6	Poor School Performance
7	Miscellaneous
8	Denial of Necessities
9	Conflict Between Parents

Index Five: Worries

1 School Work
2 Economic Anxiety
3 Loss or Accidental Damage
4 Punishment
5 Family & Social Relationships
6 Animals
7 Death & Dead People
8 Accidents/Disaster/Violence
9 The Supernatural/The Strange
10 Illness/Hospitals/Doctors
11 Dreams
12 Law Enforcement Officers
13 Darkness
14 Miscellaneous

Index Six: Fears

1 School Work
2 Economic Anxiety
3 Loss or Accidental Damage
4 Punishment
5 Family & Social Relationships
6 Animals
7 Death & Dead People
8 Accidents/Disaster/Violence
9 The Supernatural/The Strange
10 Illness/Hospitals/Doctors
11 Dreams
12 Law Enforcement Officers
13 Darkness
14 Miscellaneous

Training the Coders

To classify the responses on the basis of the list of categories discussed above, two students majoring in Education were trained. The training process was as follows: (1) the investigator briefed the trainee coders on the nature and purpose of the study, (2) they were given the questionnaire and some samples of recorded responses to study, (3) they also studied the list of categories after the investigator had explained it and the mechanics of using it, and (4) during training, the coder-trainees practiced trial classification.

Classification of the Responses

After the training, these two students and the investigator independently classified (that is, coded) all of the pupils' responses onto the code form, using the list of categories as a basis.[9] The result of the coding of the pilot study was one of the means which the investigator used to establish the reliability of the measuring instrument. It was felt that the level of agreement among the three coders, since they classified the responses independently, constituted a legitimate and powerful appraisal of the consistency of the instrument. For this reason, the results of the classification of the pilot study responses are discussed in detail below.

Establishing the Reliability of the Instrument

The reliability of the measuring instrument used for this study was established in the following ways:

1. In the course of developing the list of categories, a reliability check was made by taking a small sampling of twenty-five response forms and submitting them to two college students for classification. This was briefly described above (page 90).

2. The pilot study was planned and carried out to validate the questionnaire and to furnish data for establishing the reliability of the classification procedure. Below is a detailed description of how reliability was established.

The investigator and two trained college students coded all the responses on the code form independently, on the basis of the

previously developed list of categories. The investigator then collected the code forms and worked out the percentage rate of agreement on every index. These are described and set out in tables below.

Pilot Study Index One: Curiosities.--The total number of responses recorded for this index was 246 (see Table 4.4). The code forms showed that only once did all three coders disagree in their classification of the responses. Thus on at least 245 out of 246 occasions, at least two out of three coders agreed. Looking at individual classifications, Coder 1 agreed with the other two 236 times, Coder 2, 230 times, and Coder 3, 240 times. Altogether there were thirty instances in which there was some disagreement among the coders in classifying the 246 responses. The percentage of coder agreement for this index was 85.36.*

Pilot Study Index Two: Wishes.--For this index, 253 responses were recorded (see Table 4.5). All three coders disagreed in their classification on two occasions, so that on at least 251 occasions two coders agreed. Coder 1 agreed with the others in 250 instances, Coder 2 in 248 instances, and Coder 3 in 247 instances. In classifying 253 responses, a total of twelve instances of disagreement between and among the three coders was recorded. Rate of agreement was 94.86 percent.

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*This was computed by dividing the number of times all three coders agreed by the total number of responses and multiplying the quotient by 100.

Table 4.4.--Pilot study Index One: Curiosities--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
246	236	230	240	210	1	30	85.36

Table 4.5.--Pilot study Index Two: Wishes--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
253	250	248	247	240	2	12	94.86

Pilot Study Index Three: Favorite Activities.--There were 251 responses for this item (see Table 4.6). On three occasions all three coders disagreed in their classification, so on at least 248 occasions two coders agreed. Furthermore, Coder 1 agreed with Coders 2 and 3 on 242 occasions, Coder 2 agreed with 1 and 3 on 236 occasions, and Coder 3 agreed with 1 and 2 on 239 occasions. In classifying this index, there were thirty instances of disagreement between and among the three coders. Thus the percentage agreement was 88.04.

Pilot Study Index Four: Aversions.--This index yielded 250 responses (see Table 4.7). There was no occasion on which all three coders disagreed in their classification. Coder 1 agreed with the others 245 times, Coder 2, 237 times, and Coder 3, 247 times. Altogether there were twenty-one cases of disagreement between and among the three coders who classified the 250 responses for this index. The rate of agreement was therefore 91.60 percent.

Pilot Study Index Five: Worries.--Two hundred twenty-four responses were recorded for this index (see Table 4.8). On two occasions all three coders disagreed in their classification, meaning that 222 times at least two coders out of three agreed. On two occasions also, each of the coders disagreed with one other; thus in 220 instances, each coder agreed with at least one other. The percentage agreement for this index was 96.42.

Pilot Study Index Six: Fears.--One hundred eighty-nine responses were recorded for this index (see Table 4.9). On only two occasions, all three coders disagreed in their coding. Two

Table 4.6.--Pilot study Index Three: Favorite Activities--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
251	242	230	239	221	3	30	88.04

Table 4.7.--Pilot study Index Four: Aversions--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
250	245	237	247	229	0	21	91.60

Table 4.8.--Pilot study Index Five: Worries--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
224	220	220	220	216	2	8	96.42

Table 4.9.--Pilot study Index Six: Fears--Agreement between coders.

No. of Responses	No. of Times Each Coder Agreed With the Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagreements	Percentage Agreement
	Coder 1	Coder 2	Coder 3				
189	186	181	186	179	2	10	94.70

coders agreed on at least 187 occasions. Coder 1 agreed with the other two 186 times, Coder 2, 181 times, and Coder 3, 186 times. Total number of disagreements between and among coders in classifying this index was ten and the percentage agreement was 94.70.

Summary of coder agreement.--Rate of agreement between the coders in all six indices is summarized in Table 4.10. The overall percentage of agreement computed from the total number of responses for all indices and the number of times all three coders agreed was 92.07. On the basis of this high rage of agreement (92.07),[10] the investigator decided that the classification procedure was reliable. The questionnaire and the classification procedure were thus considered suitable for use in the final study.

Research Design

The study was designed to examine the effects of three variables on the interests and concerns of elementary school children, which were measured with six indices.

Design Over Subjects

Three factors--age, sex, and location--were observed.

Design Over Measures

Multiple measures were taken from a six-item questionnaire dealing with Curiosities, Wishes, Favorite Activities, Aversions, Worries, and Fears, with three responses per item. An illustration of the design of the study is found on page 101.

Table 4.10.--Pilot study: Summary of coder agreement on all six indices.

Index	No. of Responses	No. of Times Each Coder Agreed With Others			No. of Times All Three Agreed	No. of Times All Three Disagreed	Total No. of Disagree-ments	Percen-tage Agreement
		C1	C2	C3				
Curiosities	246	236	230	240	210	1	30	85.36
Wishes	253	250	248	247	240	2	12	94.86
Favorite Activity	251	242	236	239	221	3	30	88.04
Aversions	250	245	237	247	229	0	21	91.60
Worries	224	220	220	220	222	2	8	96.42
Fears	189	186	181	186	179	2	10	94.70
Totals	1413	1379	1352	1379	1301	10	111	92.07

Design of the Study

VARIABLES			MEASURES					
			Curiosities	Wishes	Favorite Activities	Aversions	Worries	Fears
Location	Age	Sex	a b c	a b c	a b c	a b c	a b c	a b c
Urban	Age 1	Male						
		Female						
	Age 2	Male						
		Female						
Rural	Age 1	Male						
		Female						
	Age 2	Male						
		Female						

Research Questions

The following twenty-four questions, formulated on the basis of the six measuring indices and the three variables to be observed, were designed to serve as focal points for the study. Analysis of data was designed to answer the questions.

1.0 What are elementary school children in Anambra state curious about?

1.1 Do the curiosities of younger elementary school children differ from those of older elementary school children?

1.2 Do the curiosities of elementary school boys differ from those of elementary school girls?

1.3 Do the curiosities of urban elementary school children differ from those of rural elementary school children?

2.0 What are the major wishes of elementary school children in Anambra state?

2.1 Do the wishes of younger elementary school children differ from those of older elementary school children?

2.2 Do the wishes of elementary school boys differ from those of elementary school girls?

2.3 Do the wishes of urban elementary school children differ from those of rural elementary school children?

3.0 What are the favorite activities of elementary school children in Anambra state?

3.1 Do the favorite activities of younger elementary school children differ from those of older elementary school children?

3.2 Do the favorite activities of elementary school boys differ from those of elementary school girls?

3.3 Do the favorite activities of urban elementary school children differ from those of rural elementary school children?

4.0 What are the major aversions of elementary school children in Anambra state?

4.1 Do the aversions of younger elementary school children differ from those of older elementary school children?

4.2 Do the aversions of elementary school boys differ from those of elementary school girls?

4.3 Do the aversions of urban elementary school children differ from those of rural elementary school children?

5.0 What are the major worries of elementary school children in Anambra state?

5.1 Do the worries of younger elementary school children differ from those of older elementary school children?

5.2 Do the worries of elementary school boys differ from those of elementary school girls?

5.3 Do the worries of urban elementary school children differ from those of rural elementary school children?

6.0 What do elementary school children in Anambra state fear?

6.1 Do the fears of younger elementary school children differ from those of older elementary school children?

6.2 Do the fears of elementary school boys differ from those of elementary school girls?

6.3 Do the fears of urban elementary school children differ from those of rural elementary school children?

Method of Data Analysis

Pupil responses were classified into categories by three coders.[11] On the basis of at least two (out of three) coder agreement, the investigator summarized the classification of the responses on a response summary form.

These data from the summary form, together with pupil identification and variable data, were transferred, for each subject, to computer laboratory forms. The data entered on these forms were subsequently key punched. Cases were written, using the statistical package for the Social Sciences format to enable the computer CDC 6500 scope/Hustler System to generate frequency counts of responses that fall into each category for both age sets, both sexes, and both locations.

From the computer printout, the investigator obtained the frequencies for every category within each index, according to age set, sex, and location.

To examine differences in respondent behavior within the age subgroup (i.e., between the two age sets), the frequency of responses in every category within each index was computed for the two cells in the age subgroup.

To examine differences in respondent behavior within the sex subgroup (i.e., between the sexes), the frequency of responses

in every category within each index was computed for the two cells in the sex subgroup.

To examine differences in respondent behavior within the physical location subgroup (i.e., between the urban and rural locations), the frequency of responses in every category within each index was computed for the two cells in the physical location subgroup.

The chi square was computed in order to examine differences in frequency of responses within subgroups for those categories that met the following criteria:

1. Differences in the number of responses between the two (subgroups) cells had to be at least ten. A discrepancy of ten was considered the minimum that would stand a chance of showing any meaningful difference.

2. The sum of the responses in the two (subgroup) cells had to account for at least 5 percent of the total responses recorded for the index in which that category occurs. The consideration here was that any finding based on less than 5 percent of the total index responses would have doubtful importance to the study.

The following chi square formula was used:[12]

$$\chi^2 = \sum_{j=1}^{k} \frac{(O_j - E_j)^2}{E_j}$$

where O_j = observed frequency in the j^{th} cell

E_j = the expected frequency for the j^{th} cell

k = number of cells

df = k - 1

Roscoe noted that chi square tests of goodness of fit "perform essentially the same function as the binomial probability distribution in hypothesis testing, but the chi square is not limited to two categories."[13]

The 1 x 2 cell table is used with this formula because the investigator's primary concern is to examine differences in response frequencies between the two subgroup cells in each category. In other words, subgroup comparisons are based on each category and no attempt is made to compare responses in one category with responses in another category using the chi square. Such comparisons are reflected by percentages. Popham commented,

> It should be noted that whenever chi square is calculated from 1 x 2 or 2 x 2 cell tables (instances in which there is but one degree of freedom) an adjustment known as Yates (1934) correction for continuity must be employed. To use this correction a value of 0.5 is subtracted from the absolute value (irrespective of algebraic sign) of the numerator contribution of each cell. . . . Therefore each cell makes this kind of contribution
> $$\frac{(|\text{Observed frequencies} - \text{Expected frequencies}| - 0.5)^2}{\text{Expected frequencies}}$$
> to the total value of chi square.[14]

Example:

To examine (age) differences in the responses of younger and older children in the Biological Phenomena category of Curiosities (Table 5.1, p. 113), the formula was applied thus:

Since there were equal numbers of subjects in the two age sets the expected frequency of responses in each of the two cells

would be 50 percent of the total number of responses, i.e., $\frac{467}{2}$ = 233.5. The observed frequencies of responses were 245 in the younger children's cell, and 222 in the older children's cell; thus applying Yates' correction factor since there are only two cells and one degree of freedom

$$\chi^2 = \frac{(|O_{younger} - E| - 0.5)^2}{E} + \frac{(|O_{older} - E| - 0.5)^2}{E}$$

$$= \frac{(|245 - 233.5| - 0.5)^2}{233.5} + \frac{(|222 - 233.5| - 0.5)^2}{233.5}$$

$$= .5182 + .5182$$

$$= 1.0364$$

The alpha level: This study is exploratory in nature; the open-ended questions were aimed at eliciting broad-based information on the subjects' interests and concerns. Thus a descriptive analysis of the findings instead of a strictly statistical one seems more suited to the goals of the study. It is for this reason that a large section of the analysis chapter is devoted to a detailed discussion of the findings. Based on the above consideration, the alpha level had been set at .10, allowing a 10 percent error rate; that is, the probability of a given chi square occurring by chance is 10 percent.

Test significance: Each of the six measuring indices in this study was made up of a number of categories on which subgroup comparisons were based. To obtain a realistic criterion for judging the significance of any subgroup comparison, the alpha level was

divided, in the case of each index, by the number of categories corresponding to the number of tests in that index.[15]

Example: For the index, Curiosities, in which there were seven categories, the significance level was obtained thus:

$$\frac{\text{alpha}}{\text{no. of categories}} \quad \text{i.e.,} \quad \frac{.10}{7} = .0143$$

Following the above procedure, significance levels were obtained for the six indices as follows:

Curiosities	.0143
Wishes	.00833
Favorite Activities	.01111
Aversions	.01111
Worries	.00714
Fears	.00714

A computer program, MDCHI, was used to generate critical chi square values with respect to these significance levels; thus:

Indices	P	Critical X^2
Curiosities	.0143	5.9984
Wishes	.00833	6.9824
Favorite Activities	.01111	6.44009
Aversions	.01111	6.44009
Worries	.00714	7.2196
Fears	.00714	7.2196

The above provided the criteria used in the way described below for determining which subgroup comparisons were significant.

All subgroup comparisons under the Curiosities index were based on a probability of less than .0143 and for a finding under that index to be significant, the chi square had to be equal to or greater than 5.9984.

All subgroup comparisons under the Wishes index were based on a probability of less than .00833 and for a finding under that index to be significant, the chi square had to be equal to or greater than 6.9984.

All subgroup comparisons under the Favorite Activities and Aversions indices were based on a probability of less than .01111 and for a finding under these indices to be significant, the chi square had to be equal to or greater than 6.44009.

All subgroup comparisons under the Worries and Fears indices were based on a probability of less than .00714 and for a finding under these indices to be significant the chi square had to be equal to or greater than 7.2196.

Summary

This chapter described the study population and how the sample was selected, the various research instruments used and how the instruments were administered, the pilot study, and the method of data collection. Also described were the method used to validate the questionnaire and establish the reliability of the classification procedure, the research design, and the method of data analysis.

The next chapter, the analysis of data and discussion of findings, has two parts: a first part which presents the data by means of tables, showing frequencies, percentages, and chi square, and a second part which presents the discussion of the findings.

CHAPTER V

ANALYSIS OF THE DATA AND DISCUSSION OF THE FINDINGS

The purpose of this chapter is to present the analysis of data on the study of children's interests and concerns. The research set out to examine the effects of three variables: age, sex, and physical location on children's interests and concerns. Three Interest indices: Curiosities, Wishes, and Favorite Activities, and three Concern indices: Aversions, Worries, and Fears were used to measure the interests and concerns of selected elementary school pupils. Five hundred twenty-eight subjects who comprised the sample for the study were made up of equal numbers of boys and girls, rural and urban pupils, and younger and older children.

The subjects generated 8,647 responses: 4,282 from boys and 4,365 from girls, 4,382 from urban and 4,319 from rural children, and 4,312 from younger and 4,338 from older children. Responses were grouped into categories, the construction of which was described in Chapter Four. Frequencies of responses within each category were tallied according to whether they were made by younger or older children (age variable), boys or girls (sex variable), and rural or urban respondents (physical location variable). Percentages were computed for every category on the basis of the total

number of responses for the index in which the category is located. In order to report the relative frequencies of responses within variable cells (that is, within subgroups), percentages were also computed for every cell on the basis of the variable (i.e., subgroup) total for the category being considered. All frequencies were reported but comments are mostly limited to categories having the highest frequencies of response. The chi square was computed for those categories satisfying the following criteria: (1) between cell differences must be at least ten, (2) the contents of the two cells must sum to at least 5 percent of the index total. Emphasis on results that are meaningful dictated the use of these two criteria.

A matrix showing in complete detail the breakdown of within and between cell responses is included in Appendix C. Analysis in this chapter is not based on this matrix for the following reason. On examination, it was discovered that between cell frequencies were so close that meaningful differences could not be expected. This view is supported by the relative similarity in response behavior evident in the analyses that follow. However, the matrix is useful as reference for tracing suspected trends. It is used for such a purpose on a number of occasions in the discussion of findings.

Data, analyzed on the basis of the research questions which served as the focal points of this study, are presented in Part One of this chapter, in six sections according to the six index measures. Each section shows by means of tables and discussion the frequencies, percentages, and chi square comparisons, the responses of

subjects according to the three variables: age, sex, and physical location. Section I presents data on Curiosities, Section II on Wishes, Section III on Favorite Activities, Section IV on Aversions, Section V on Worries, and Section VI on Fears. A summary of the findings follows Section VI, and Part Two presents the Discussion of Findings.

Part One: Analysis of the Data

Curiosities

Research Question 1.0: What are elementary school children in Anambra state curious about?

Research Question 1.1: Do the curiosities of younger elementary school children differ from those of older elementary school children?

Fourteen hundred sixty-seven responses were recorded for Curiosities. The most frequently mentioned curiosities were in the Biological Phenomena category, which made up 31.9 percent of responses in this index. Curiosity about Physical Phenomena ranked second with 22.9 percent; Supernatural/Religious matters ranked third and accounted for 14.5 percent of the responses.

Table 5.1 presents variable frequencies and percentages by age set for the index, Curiosities.

Response patterns appear quite similar for the two age sets. The percentages show that for the first three categories, Technology & Applied Science, Biological Phenomena, and Physical Phenomena, the younger children gave slightly more responses but in the next four categories, this trend was reversed. A considerable difference was found between the responses of younger and older

Table 5.1.--Curiosities: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 5.99 at .0143 alpha level.

Categories	Responses						χ^2
	Younger Children[a]		Older Children[b]		Total		
	N	%[c]	N	%[c]	N	%[d]	
Technology & Applied Science	107	50.23	106	49.76	213	14.49	
Biological Phenomena	245	52.46	222	47.53	467	31.79	1.0364
Physical Phenomena	173	51.48	163	48.51	336	22.87	0.2410
Human & Animal Behavior	73	42.44	99	58.55	172	11.70	3.6337
Supernatural/Religious	97	41.99	134	58.00	231	15.72	5.6103*
Misfortunes & Accidents	17	48.57	18	51.42	35	2.38	
Miscellaneous	2	16.66	10	83.33	12	.81	
Total	714		752		1466	100.00	

[a]Aged seven to nine.

[b]Aged eleven to thirteen.

[c]These percentages are based on row totals.

[d]Based on column total.

*Just short of significance at $p < .0143$.

children in the Supernatural/Religious matters category where the chi square, 5.6103, was just short of significance (5.99).

Research Question 1.2: Do the curiosities of elementary school boys differ from those of elementary school girls?

Table 5.2 presents variable frequencies and percentages by sex for the index, Curiosities.

The area of greatest curiosity for both sexes was Biological Phenomena, in which the frequency of the responses of boys and girls was very close. In Physical Phenomena, the second greatest area of curiosity, 52 percent of the responses were made by girls while in the Supernatural/Religious category, the third greatest area of curiosity, boys gave 56 percent of the responses.

The response behavior of boys and girls was very similar for all categories. Boys' responses were slightly lower than girls' in four categories: Biological Phenomena, Physical Phenomena, Human & Animal Behavior, and Misfortunes & Accidents. The trend was, however, reversed for Technology & Applied Science and Supernatural/Religious Phenomena. In these two categories, boys gave 52.6 percent and 56.3 percent, respectively, of the responses.

No significant differences were found between the responses of girls and boys.

Research Question 1.3: Do the curiosities of urban elementary school children differ from those of rural elementary school children?

Variable frequencies and percentages by physical location for the index, Curiosities, are presented in Table 5.3.

Table 5.2.--Curiosities: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 5.99 at .0143 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
Technology & Applied Science	112	52.58	101	47.41	213	14.52	0.4694
Biological Phenomena	229	49.03	238	50.96	467	31.85	
Physical Phenomena	161	47.91	175	52.08	336	22.91	0.5029
Human & Animal Behavior	79	45.93	93	54.06	172	11.73	0.9825
Supernatural/Religious	130	56.27	101	43.72	231	15.76	3.3939
Misfortunes & Accidents	16	45.71	19	54.28	35	2.39	
Miscellaneous	2	16.66	10	83.33	12	.82	
Total	729		737		1466	100.00	

[a]Based on row totals.

[b]Based on column total.

Table 5.3.--Curiosities: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 5.99 at .0143 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
Technology & Applied Science	128	60.09	85	39.90	213	14.52	8.2816*
Biological Phenomena	201	43.04	266	56.95	467	31.85	8.7708*
Physical Phenomena	170	50.59	166	49.40	336	22.91	
Human & Animal Behavior	84	48.83	88	51.16	172	11.73	
Supernatural/Religious	129	55.84	102	44.15	231	15.75	2.9264
Misfortunes & Accidents	20	57.14	15	42.85	35	2.38	
Miscellaneous	4	33.33	8	66.66	12	.81	
Total	736		730		1466	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at $p < .0143$.

In the most frequently mentioned area of curiosity, Biological Phenomena, rural children gave nearly 57 percent of the responses while in Physical Phenomena, which ranked second, frequency of responses from both locations was very close. In the third highest area of curiosity, Supernatural/Religious, urban children gave nearly 56 percent of the responses.

Urban children gave 60.1 percent of the responses in the Technology & Applied Science category, 57.1 percent of those in the Accidents & Misfortunes category, and 55.8 percent of those in the Supernatural/Religious category. This trend was reversed for the Biological Phenomena category, where rural children gave nearly 57 percent of the responses and 51.2 percent of those for Human & Animal Behavior.

Significant differences were found between the responses of rural and urban children in two categories: Technology & Applied Science where the chi square was 8.28 and Biological Phenomena with chi square of 8.77.

Wishes

Research Question 2.0: What are the major wishes of elementary school children in Anambra state?

Research Question 2.1: Do the wishes of younger elementary school children differ from those of older elementary school children?

Forty and six-tenths percent of all the wishes expressed by both groups were for Personal Possessions, 16.1 percent were connected with Ambitions for Vocations & Future Career, and 11.5 percent were wishes for School Success.

Table 5.4 presents variable frequencies and percentages for the two age groups for this index, Wishes.

Responses to this item showed variations in the wishes of the two age groups. Of the 634 wishes for Personal Possessions, 61.7 percent were made by the younger age group. In wishes for Travel, 55.1 percent were made by younger children. Only 37 wishes out of 1563 were for Food, and 30 of these or 81 percent were made by younger children. In all the other categories in this index, older children expressed more wishes. Fifty-four and two-tenths percent of the wishes for Success in School, 62.7 percent of those about Ambitions for Vocations & Future Careers, 59.2 percent of wishes for Personal & Family Welfare, 72.7 percent of wishes for Others' Welfare, 75.2 percent of wishes To Be Good, 66.6 percent of wishes that there be No Death, and 65.5 percent of wishes To Live Long were expressed by older children.

Significant differences between the wishes of the two age groups were found in three categories: wishes for Personal Possessions, wishes concerned with Ambitions for Vocations & Future Career, and third, wishes To Be Good.

Research Question 2.2: Do the wishes of elementary school boys differ from those of elementary school girls?

Table 5.5 presents variable frequencies and percentages by sex for the index, Wishes.

Forty and six-tenths percent of the wishes expressed by both sexes were for Personal Possessions, 16.1 percent were concerned

Table 5.4.--Wishes: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 6.98 at .00833 alpha level.

Categories	Responses						χ^2
	Younger Children		Older Children		Total		
	N	%[a]	N	%[a]	N	%[b]	
Personal (including family possessions)	391	61.67	243	38.32	634	40.56	34.08*
Success in School	82	45.81	97	54.18	179	11.45	1.0949
Travel	81	55.10	66	44.89	147	9.40	1.3333
Ambitions for Vocations & Future Career	94	37.30	158	62.64	252	16.12	15.75*
Personal & Family Welfare	40	40.81	58	59.18	98	6.26	2.9489
Others' Welfare	6	27.27	16	72.72	22	1.40	
Food	30	81.08	7	18.91	37	2.36	
Sports, Playing & Entertainment	6	46.15	7	53.84	13	.83	
Miscellaneous	9	34.61	16	61.53	26	1.66	
To Be Good	22	24.71	67	75.38	89	5.69	21.7528*
To Live Long	20	34.48	38	65.51	58	3.71	
No Death	3	33.33	6	66.66	9	.57	
Total	784		779		1563	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at $p < .00833$.

Table 5.5.--Wishes: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 6.98 at .00833 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
Personal (including family material possessions)	331	52.20	303	47.79	634	40.56	1.1498
Success in School	77	43.01	102	56.98	179	11.45	3.2178
Travel	62	12.17	85	57.82	147	9.40	3.2925
Ambitions for Vocations & Future Career	150	59.52	102	40.47	252	16.12	8.7658*
Personal Family Welfare	40	40.81	58	59.18	98	6.26	2.9489
Others' Welfare	14	63.63	8	36.36	22	1.40	
Food	17	45.94	20	54.05	37	2.36	
Sports, Playing & Entertainment	6	46.15	7	53.84	13	.83	
Miscellaneous	14	56.00	11	44.00	25	1.59	
To Be Good	40	44.94	49	55.05	89	5.69	
To Live Long	20	34.48	38	65.51	58	3.71	
No Death	4	44.44	5	55.55	9	.57	
Total	775		778		1563	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at $p < .0143$.

with Ambitions for Vocations & Future Career, 11.45 percent were for Success in School, and 9.4 percent for Travel.

Response patterns were quite similar for both sexes. Boys expressed slightly more wishes for Personal Possessions than girls, 52.5 percent compared to 47.8 percent. Boys also expressed more wishes, nearly 60 percent, concerned with Ambitions for Vocations & Future Career, and nearly 64 percent of those about Others' Welfare. But in wishes To Live Long, No Death, To Be Good, for Food, for Personal & Family Welfare, Travel, and Success in School, girls expressed more wishes than boys. More boys' wishes (56 percent) than girls' were classified under Miscellaneous.

A significant difference between the responses of boys and girls was found in the Ambitions for Vocations & Future Career category, with a chi square of 8.77.

Research Question 2.3: Do the wishes of urban elementary school children differ from those of rural elementary school children?

The most frequently mentioned wishes were for Personal Possessions and in this category, responses of urban and rural children were very similar. The category, Ambitions for Vocations & Future Career ranked second, and in this category an identical number of responses were recorded from the two locations. In the third most frequently expressed wish, for School Success, more than 52 percent of the responses were made by rural children.

Table 5.6 lists variable frequencies and percentages by physical location for the index, Wishes.

Table 5.6.--Wishes: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 6.98 at .00833 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
Personal & Family Possessions	321	50.63	313	49.36	634	40.56	
Success in School	85	47.48	94	52.51	179	11.45	
Travel	82	55.78	65	44.21	147	9.40	1.7414
Ambitions for Vocation & Future Career	126	50.00	126	50.00	252	16.12	
Personal & Family Welfare	40	40.81	58	59.18	98	6.26	2.9489
Others' Welfare	14	63.63	8	36.36	22	1.40	
Food	17	45.94	20	54.05	37	2.36	
Sports, Playing & Entertainment	10	76.92	3	23.07	13	.83	
Miscellaneous	11	44.00	14	56.00	25	1.59	
To Be Good	51	57.30	38	42.69	89	5.69	1.6179
To Live Long	18	31.03	40	68.96	58	3.71	
No Death	7	77.77	2	22.22	9	.57	
Total	782		781		1563	100.00	

[a]Based on row totals.

[b]Based on column total.

Responses in certain categories were quite similar for both rural and urban children, but variation was also evident. Regarding Personal Possessions, children in both locations responded almost identically. But slightly more urban children than rural wished for Travel, 55.8 percent against 44.2 percent. The same pattern was shown in wishes To Be Good, 57.3 percent against 42.7 percent. The pattern was reversed in wishes for School Success and Food. In these two, rural children gave slightly more responses than urban children.

In wishes for Others' Welfare, urban children gave considerably more responses, giving 63.6 percent of the responses. For Sports, Playing & Entertainment, they gave 76.9 percent of the responses for that category. In the wish category To Live Long, rural children gave 70 percent of the responses.

No significant differences were found in the responses of children from the two locations for this index.

Favorite Activities

Research Question 3.0: What are the favorite activities of elementary school children in Anambra state?

Research Question 3.1: Do the favorite activities of younger elementary school children differ from those of older elementary school children?

Table 5.7 presents variable frequencies and percentages by age sets for the index, Favorite Activities.

The overall most favored activities were in the Playing, Sports & Games category, which accounted for 43.6 percent of the responses. Home Duties was the second most popular with 18.7

Table 5.7.--Favorite Activities: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 6.44 at .01111 alpha level.

Categories	Responses						χ^2
	Younger Children		Older Children		Total		
	N	%[a]	N	%[a]	N	%[b]	
Home Duties & Chores	158	57.45	117	42.54	275	18.75	5.8181**
Playing, Sports, Games	322	50.39	317	49.60	639	43.58	
Making Things	11	47.82	12	52.17	23	1.56	
Reading & Studying	112	42.10	154	57.89	266	18.14	6.6198*
Eating	53	60.91	34	39.08	87	5.93	3.7214
Excursions/Exploring	19	45.23	23	54.76	42	2.86	
Attending School	6	66.66	3	33.33	9	.61	
Social Activities/ Entertainment	44	55.69	35	44.30	79	5.38	
Miscellaneous	22	47.82	24	52.17	46	3.13	
Total	747		719		1466	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at p < .01111.

**Just short of significance.

percent while Reading/Studying was third, making up 18.1 percent of the responses.

A slightly greater percentage of responses in the Home Duties and Social Activities/Entertainment categories were made by younger children, while in the Making Things, Excursions, and Reading/Studying categories, more responses were made by older children. Younger children responded more in the Attending School (66.7 percent) and Eating (61 percent) categories than older children.

A significant difference was found in the responses of the two age sets in the Reading/Studying category. Home Duties had a high chi square (5.8181), though this did not reach the level of significance (6.44).

Research Question 3.2: Do the favorite activities of elementary school boys differ from those of elementary school girls?

Table 5.8 presents variable frequencies and percentages by sex for the index, Favorite Activities.

Playing, Sports & Games was the most popular category and slightly more than 51 percent of the responses were given by boys. In Reading & Studying, the next most popular, frequency of response was almost equal for both sexes. Girls gave almost 58 percent of the Home Duties & Chores responses, the third most popular category.

In five categories, Playing, Sports & Games, Making Things, Reading & Studying, Eating, and Excursions, there was close similarity in the response patterns of boys and girls, but with the boys giving slightly more responses than girls in all five. In

Table 5.8.--Favorite Activities: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 6.44 at .01111 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
Home Duties & Chores	116	42.15	159	57.81	275	18.75	6.4442*
Playing, Sports, Games	329	51.48	310	48.51	639	43.58	0.5070
Making Things	13	56.52	10	43.47	23	1.56	
Reading & Studying	135	50.75	131	49.24	266	18.14	
Eating	45	51.72	42	48.27	87	5.93	
Excursions/Exploring	24	57.14	18	42.85	42	2.86	
Attending School	6	66.66	3	33.33	9	.61	
Social Activities/ Entertainment	29	36.70	50	63.29	79	5.38	5.0632
Miscellaneous	25	54.34	21	45.65	46	3.13	
Total	722		744		1466	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at p < .01111.

only two categories, Home Duties and Social Activities, did more girls than boys respond. Sixty-five percent of the responses for Attending School came from boys. A significant difference was found between boys' and girls' responses in the Home Duties & Chores category. The chi square for this category was 6.44.

Research Question 3.3: Do the favorite activities of urban elementary school children differ from those of rural elementary school children?

Table 5.9 lists variable frequencies and percentages by physical location for the index, Favorite Activities.

For children in both locations, Playing, Sports & Games ranked first as favorite activities, receiving more than 54 percent of its responses from rural children. Almost the same number of responses were made by children from the two locations for Home Duties & Chores, the second most popular category. For the third most popular category, Reading/Studying, 55 percent of the responses were made by urban children.

Response patterns were very similar in this index for children from rural and urban locations. But more urban than rural children mentioned Eating as a favorite activity. Also 88.9 percent of the responses mentioning Attending School as a favorite activity were given by urban children. On the other hand, 76.2 percent of the tallies for Excursions/Exploring were from rural children. Slightly more rural than urban children mentioned Playing, Sports & Games as favorite activities.

Table 5.9.--Favorite Activities: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 6.44 at .01111 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
Home Duties & Chores	135	49.09	140	50.90	275	18.75	
Playing, Sports, Games	291	45.53	348	54.46	639	43.58	4.9076
Making Things	12	52.17	11	47.82	23	1.56	
Reading/Studying	147	55.26	119	44.73	266	18.14	2.7406
Eating	55	63.21	32	36.78	87	5.93	5.5632*
Excursions/Exploring	10	23.80	32	76.19	42	2.86	
Attending School	8	88.88	1	11.11	9	.61	
Social Activities/ Entertainment	40	50.63	39	49.36	79	5.38	
Miscellaneous	26	56.52	20	43.47	46	3.13	
Total	724		742		1466	100.00	

[a]Based on row totals.

[b]Based on column total.

*Just short of significance.

No significant differences were found between the responses of urban and rural children, though the chi square (5.56) for category six, Eating, was quite high.

Aversions

Research Question 4.0: What are elementary school pupils in Anambra state most averse to?

Research Question 4.1: Do the aversions of younger elementary school children differ from those of older elementary school children?

Table 5.10 presents variable frequencies and percentages for the index, Aversions, by age set.

The category with the greatest number of responses was Aggression/Violence/Injustice with 42 percent of the responses. Aversion to Dishonesty accounted for 23.7 percent of the responses, while the Conflicts/Punishment category had the third highest total responses and made up 15.7 percent.

The response pattern showed some similarity and some variation for the two age sets. In aversion to Aggression/Violence/Injustice, both groups responded quite similarly, but in aversion to Dishonesty and to Disasters older children gave slightly more responses than younger children. Younger children gave more responses in aversion to Conflicts/Punishment (61.7 percent) and Doing Chores (63.6 percent) than older children. Older children responded more in the Poor School Performance category (61.1 percent) than younger children.

Table 5.10.--Aversions: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 6.44 at .01111 alpha level.

Categories	Responses						χ^2
	Younger Children		Older Children		Total		
	N	%[a]	N	%[a]	N	%[b]	
Aggression/Violence/Injustice	265	48.00	287	51.99	552	42.04	0.7989
Conflicts, Punishment	127	61.65	79	38.34	206	15.68	10.7233*
Dishonesty	146	46.94	165	53.05	311	23.68	1.0418
Disasters	28	46.60	55	53.59	103	7.84	
Doing Chores	14	63.63	8	36.36	22	1.67	
Poor School Performance	7	38.88	11	61.11	18	1.37	
Miscellaneous	34	47.22	38	57.22	72	5.48	
Denial of Necessities	15	60.00	10	40.00	25	1.90	
Conflict Between Parents	0	0.00	4	100.00	4	.30	
Total	656		657		1313	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at p < .01111.

A significant difference was found between the responses of the two age sets in the Conflicts/Punishment category. The chi square result was 10.72

Research Question 4.2: Do the aversions of elementary school boys differ from those of elementary school girls?

The most frequently expressed aversions by both sexes were in the Aggression/Violence/Injustice category. Response patterns for boys and girls were similar in this category. Aversion to Dishonesty was the second highest and once again the two sexes gave almost the same number of responses, but with boys giving slightly more, 51 percent. In the third most frequently mentioned aversion, Conflicts/Punishment, nearly 54 percent of the responses came from girls.

Table 5.11 presents variable frequencies and percentages by sex for the index, Aversions.

Both sexes responded quite similarly in most of the categories. More boys than girls expressed aversion to Doing Chores, 68.2 percent as compared to 31.8 percent; to Denial of Necessities, 60 percent as compared to 40 percent. More girls than boys expressed aversion to Poor School Performance, giving 61 percent of the responses.

It should be noted that this index has the highest percentage of responses classified as Miscellaneous among all the indices.

In none of the categories was a significant difference found between the responses of boys and girls.

Table 5.11.--Aversions: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 6.44 at .01111 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
Aggression/Violence/Injustice	271	49.09	281	50.90	552	42.04	0.1467
Conflicts, Punishment	95	46.11	111	53.88	206	15.68	0.8203
Dishonesty	159	51.12	152	48.87	311	23.68	
Disasters	56	54.36	47	45.63	103	7.84	
Doing Chores	15	68.18	7	31.81	22	1.67	
Poor School Performance	7	38.88	11	61.11	18	1.37	
Miscellaneous	21	29.16	51	70.83	72	5.48	
Denial of Necessities	15	60.00	10	40.00	25	1.90	
Conflict Between Parents	3	75.00	1	25.00	4	.30	
Total	642		671		1313	100.00	

[a]Based on row totals.

[b]Based on column total.

Research Question 4.3: Do the aversions of urban elementary school children differ from those of rural elementary school children?

Variable frequencies and percentages by physical location for the index, Aversions, are presented in Table 5.12.

The most frequently expressed aversions were for happenings related to Aggression/Violence/Injustice. Responses from rural and urban children to this category were about equal. More urban than rural children, however, expressed aversion to Dishonesty, giving nearly 54 percent of the responses, whereas in the Conflict/Punishment category 56 percent of the responses were made by rural children.

Response patterns were on the whole very similar for urban and rural children. However, urban children gave slightly more responses than rural children in aversion to Doing Chores, Poor School Performance, and Dishonesty. The reverse was the case with regard to the categories, Conflict/Punishment and Disasters. In these two categories, rural children gave more responses than urban children.

No significant differences were found in the responses of children from the two locations.

Worries

Research Question 5.0: What are the major worries of elementary school children in Anambra state?

Research Question 5.1: Do the worries of younger elementary school children differ from those of older elementary school children?

Variable frequencies and percentages for Worries by age set are presented in Table 5.13.

Table 5.12.--Aversions: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 6.46 at .01111 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
Aggression/Violence/Injustice	278	50.36	274	49.63	552	42.00	
Conflict, Punishment	91	44.17	115	55.82	206	15.68	2.5679
Dishonesty	167	53.69	144	46.30	311	23.68	1.5562
Disasters	45	43.68	58	56.31	103	7.84	1.3980
Doing Chores	12	54.54	10	45.45	22	1.67	
Poor School Performance	10	55.55	8	44.44	18	1.37	
Miscellaneous	36	50.00	36	50.00	72	5.48	
Denial of Necessities	12	48.00	13	52.00	25	1.90	
Conflict Between Parents	3	75.00	1	25.00	4	.30	
Total	654		659		1313	100.00	

[a]Based on row totals.

[b]Based on column total.

Table 5.13.--Worries: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Younger Children		Older Children		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	97	45.32	117	54.67	214	16.37	1.6869
Economic Anxiety	33	51.56	31	48.43	64	4.89	
Loss/Accidental Damage	40	44.94	49	55.05	89	6.32	
Punishment	124	52.54	112	47.75	239	18.28	0.5127
Family & Social Relationships	14	40.00	21	60.00	35	2.67	
Animals	9	60.00	6	40.00	15	1.14	
Death & Dead People	75	44.37	94	55.67	169	12.93	1.9171
Accidents/Disaster/Violence	16	69.56	7	30.43	23	1.75	
The Supernatural/The Strange	156	50.00	156	50.00	312	23.87	
Illness/Hospital/Doctors	54	53.46	47	46.53	101	7.72	
Dreams	9	60.00	6	40.00	15	1.14	
Law Enforcement Officers	2	50.00	2	50.00	4	.30	
Darkness	6	85.71	1	14.28	7	.53	
Miscellaneous	2	6.69	21	91.30	23	1.75	
Total	637		670		1307	100.00	

[a]Based on row totals.

[b]Based on column total.

Worries about The Supernatural/The Strange had the largest responses, making up 23.9 percent of the responses for this item. Both age groups gave exactly the same number of responses in this category. Worries about Punishment was the next highest and made up 18.28 percent of the responses. More of the younger children (52.5 percent) than older responded to this. Worries about School Work was third and made up 16.4 percent of the responses, with older children responding more to this (54.7 percent) than younger children.

Slightly more (51.56 percent) of younger than older children responded in the Economic Anxiety category. The same was true of worries about Illness/Hospital/Doctors, in which younger children gave 53.5 percent of the responses. Sixty percent of the responses for worries about Animals were made by younger children and nearly 70 percent of responses about Accidents/Disaster/Violence. In addition, 60 percent of responses about Dreams and 85.7 percent of those about Darkness were made by younger children.

Older children responded more (55.1 percent) to worries caused by Loss/Accidental Damage to things than younger children; they also gave more responses (60 percent) in the Family & Social Relationships category and in the Death & Dead People category, where they gave 55.7 percent of the responses.

No significant differences were found in the responses of the two age sets in any of the categories in this index.

Research Question 5.2: Do the worries of elementary school boys differ from those of elementary school girls?

Table 5.14 presents variable frequencies and percentages by sex for the index, Worries.

Similarity rather than differences was evident regarding the worries of boys and girls. The most frequently expressed source of worries for both sexes was The Supernatural/The Strange, in which nearly 55 percent of the responses came from boys. Worries connected with Punishment came next and nearly 54 percent of the responses were made by girls. Worries connected with School Work ranked third with 57 percent of the responses coming from girls.

No significant differences were found between the responses of boys and girls.

Research Question 5.3: Do the worries of urban elementary school children differ from those of rural elementary school children?

Table 5.15 lists variable frequencies and percentages by physical location for the index, Worries.

Worries about The Supernatural/The Strange received the overall largest number of responses, more than 53 percent of these being made by urban children. Next came worries about Punishment, with urban children contributing more than 54 percent. Worries concerning School Work ranked third, with the same number of responses coming from each location.

Similarity in the responses of rural and urban children was evident in many of the categories; worries about School Work showed 50 percent of the responses coming from each location. Slightly

Table 5.14.--Worries: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	92	42.99	122	57.00	214	16.66	3.9299
Economic Anxiety	36	56.25	28	43.75	64	4.89	
Loss/Accidental Damage	39	43.82	50	56.17	89	6.80	1.1235
Punishment	109	46.18	127	53.81	236	18.06	1.2245
Family & Social Relationships	19	54.28	16	45.71	35	2.67	
Animals	7	46.60	8	53.33	15	1.14	
Death & Dead People	92	54.43	77	45.56	169	12.93	1.1597
Accidents/Disaster/Violence	10	43.47	13	56.52	23	1.75	
The Supernatural/The Strange	171	54.80	141	45.19	312	23.87	2.6955
Illness/Hospital/Doctors	48	47.52	53	52.47	101	7.72	
Dreams	9	60.00	6	40.00	15	1.14	
Law Enforcement Officers	2	50.00	2	50.00	4	.30	
Darkness	3	42.85	4	57.14	7	.53	
Miscellaneous	5	21.73	18	78.26	23	1.75	
Total	642		665		1307	100.00	

[a]Based on row totals.

[b]Based on column total.

Table 5.15.--Worries: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	107	50.00	107	50.00	214	16.37	
Economic Anxiety	25	39.05	39	60.93	64	4.89	
Loss/Accidental Damage	46	51.68	43	48.31	89	6.80	
Punishment	129	54.66	107	45.33	236	18.05	1.8686
Family & Social Relationships	15	42.85	20	57.14	35	2.67	
Animals	7	46.66	8	53.33	15	1.14	
Death & Dead People	75	44.37	94	55.62	169	12.93	2.9171
Accidents/Disaster/Violence	16	69.56	7	30.43	23	1.75	
The Supernatural/The Strange	167	53.52	145	46.47	312	23.87	1.4134
Illness/Hospital/Doctors	46	45.54	55	54.45	101	7.72	
Dreams	12	80.00	3	20.00	15	1.14	
Law Enforcement Officers	3	75.00	1	25.00	4	.30	
Darkness	2	28.57	5	71.42	7	.53	
Miscellaneous	20	86.95	3	13.04	23	1.75	
Total	670		637		1307	100.00	

[a]Based on row totals.

[b]Based on column total.

more urban children worried about Loss/Accidental Damage, Punishment, The Supernatural/The Strange. On the other hand, slightly more rural than urban children worried about Family & Social Relationships, Animals, Death & Dead People, and Illness/Hospital/Doctors.

No significant differences were found between the responses of rural and urban children in this index.

Fears

Research Question 6.0: What do elementary school children in Anambra state fear?

Research Question 6.1: Do the fears of younger elementary school children differ from those of older elementary school children?

Table 5.16 presents variable frequencies and percentages by age set for the index, Fears.

The most frequently expressed fear was of Animals, which received 32.3 percent of the total index responses. Fear of The Supernatural/The Strange had 29.2 percent, of Accidents/Violence/Disaster 19.4 percent.

Of the responses for Animals, 60.2 percent were given by younger children and 39.8 percent by the older set. Of the responses for Accidents/Violence/Disaster, 54.5 percent came from younger children and 45.5 percent from older children. Forty-three and five-tenths percent of the responses for The Supernatural/The Strange came from younger children, while older children gave 56.5 percent.

Significant differences were found between between the age sets in two categories: fear of Animals, where the chi square was

Table 5.16.--Fears: Variable frequencies, percentages, and chi square by age set.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Younger Children		Older Children		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	1	100.00	0	0.00	1	.06	
Economic Anxiety	0	0.00	0	0.00	0	0.00	
Loss/Accidental Damage	0	0.00	0	0.00	0	0.00	
Punishment	3	23.08	10	76.92	13	.84	
Family & Social Relationships	1	33.33	2	66.66	3	.19	
Animals	298	60.20	197	39.79	495	32.31	20.2020*
Death & Dead People	57	40.42	84	59.57	141	9.20	4.7943
Accidents/Violence/Disaster	162	54.54	135	45.45	297	19.38	2.2760
The Supernatural/The Strange	195	43.52	253	56.47	448	29.24	7.2522*
Illness/Hospital/Doctors	5	41.67	7	58.33	12	.78	
Dreams	4	25.00	12	75.00	16	1.04	
Law Enforcement Officers	3	42.86	4	57.14	7	.45	
Darkness	25	51.02	24	48.98	49	3.19	
Miscellaneous	17	34.00	33	66.00	50	3.26	
Total	771		761		1532	100.00	

[a]Based on row totals.

[b]Based on column total.

*Significant at $p < .00714$.

20.2, and fear of The Supernatural/The Strange, with a chi square of 7.25.

Research Question 6.2: Do the fears of elementary school boys differ from those of elementary school girls?

Table 5.17 presents variable frequencies and percentages by sex for the index, Fears.

For both boys and girls the most frequently mentioned fear was that of Animals, with boys expressing slightly more, 52.5 percent, of this kind of fear. Fear of The Supernatural/The Strange ranked second, and both sexes responded in equal numbers; fear of Accidents/Disaster/Violence came third and showed slightly more girls, 51.2 percent, responding.

An overall look at the categories suggests that girls gave more responses throughout the index than did boys. For fear of Death & Dead People, Accidents/Disaster/Violence, and Darkness, slightly more responses were recorded from girls than from boys. Boys, however, expressed 66 percent of the fears recorded in the Illness/Hospital/Doctors category and 52.5 percent of those about Animals.

No significant differences were found between the responses of boys and girls to this index.

Research Question 6.3: Do the fears of urban elementary school children differ from those of rural elementary school children?

Variable frequencies and percentages by physical location for the index, Fears, are presented in Table 5.18.

Table 5.17.--Fears: Variable frequencies, percentages, and chi square by sex.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Boys		Girls		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	0	0.00	1	100.00	1	.06	
Economic Anxiety	0	0.00	0	0.00	0	0.00	
Loss/Accidental Damage	0	0.00	0	0.00	0	0.00	
Punishment	4	30.76	9	69.23	13	.84	
Family & Social Relationships	1	33.33	2	66.66	3	.19	
Animals	260	52.52	235	47.47	495	32.31	1.1636
Death & Dead People	64	45.39	77	54.60	141	9.20	1.0212
Accidents/Disaster/Violence	145	48.82	152	51.17	297	19.38	
The Supernatural/The Strange	224	50.00	224	50.00	448	29.24	
Illness/Hospital/Doctors	8	66.66	4	33.33	12	.78	
Dreams	5	31.25	11	68.75	16	1.04	
Law Enforcement Officers	3	42.85	4	57.14	7	.45	
Darkness	24	48.97	25	51.02	49	3.19	
Miscellaneous	34	68.00	16	32.00	50	3.26	
Total	772		760		1532	100.00	

[a]Based on row totals.

[b]Based on column total.

Table 5.18.--Fears: Variable frequencies, percentages, and chi square by physical location.

Critical χ^2 = 7.22 at .00714 alpha level.

Categories	Responses						χ^2
	Urban		Rural		Total		
	N	%[a]	N	%[a]	N	%[b]	
School Work	1	100.00	0	0.00	1	.06	
Economic Anxiety	0	0.00	0	0.00	0	0.00	
Loss/Accidental Damage	0	0.00	0	0.00	0	0.00	
Punishment	7	53.84	6	46.15	13	.84	
Family & Social Relationships	3	100.00	0	0.00	3	.19	
Animals	241	48.68	254	51.31	495	32.31	0.2909
Death & Dead People	67	47.51	74	52.48	141	9.20	
Accidents/Disasters/Violence	143	48.14	154	51.85	297	19.38	0.3367
The Supernatural/The Strange	227	50.66	221	49.33	448	29.24	
Illness/Hospital/Doctors	10	83.33	2	16.66	12	.78	
Dreams	9	56.25	7	43.75	16	1.04	
Law Enforcement Officers	2	28.57	5	71.41	7	.45	
Darkness	25	51.02	24	48.97	49	3.19	
Miscellaneous	27	54.00	23	46.00	50	3.26	
Total	762		770		1532	100.00	

[a]Based on row totals.

[b]Based on column total.

Fear of Animals constituted the highest (32.3) percentage of all fears expressed by the children. More than 51 percent of the Animals responses were made by rural children, whereas for the next highest, fear of The Supernatural/The Strange, nearly the same number of responses was recorded from both locations. Difference in number of responses between the locations was also small in the third most frequently expressed source of fear, Accidents/Disaster/Violence.

Response patterns were similar for urban and rural children. Slightly more urban than rural children feared Punishment, Dreams, and Darkness, while slightly more rural than urban children feared Animals, Death & Dead People, and Accidents/Disasters/Violence.

Differences between the two locations were more noticeable in the Illness/Hospital/Doctors and Law Enforcement Officers categories, where 83.3 percent of the responses for fear of Illness/Hospital/Doctors came from urban children and 71.4 percent of those for fear of Law Enforcement Officers were expressed by rural children.

No significant differences were found, however, between the responses of rural and urban children in this index..

Summary of Findings

Of all the variables, age yielded the largest number of significant differences along the six index measures, while the variable physical location showed significant differences in only one index. Significant differences were measured for the sex variable in two indices. Table 5.19 presents a summary of the findings.

Table 5.19.--Summary of findings: Variable frequencies, percentages, and chi square by age set, sex, and location for all indices.

Index/Categories	Age					Sex					Location					Total	
	Younger		Older		χ^2	Boys		Girls		χ^2	Urban		Rural		χ^2		
	N	%	N	%		N	%	N	%		N	%	N	%		N	%
Curiosities: Critical χ^2 = 5.99 at p < .0143																	
Technology & Applied Science	107	50.3	106	49.8		112	52.6	101	47.4	0.47	128	60.1	85	39.9	8.28*	213	14.5
Biological Phenomena	245	52.5	222	47.5	1.04	229	49.0	238	51.0		201	43.0	226	57.0	8.77*	467	31.9
Physical Phenomena	173	51.5	163	48.5	0.24	161	48.0	175	52.1	0.50	170	50.6	166	49.4		336	22.9
Human & Animal Behavior	73	42.4	99	58.6	3.63	79	46.0	93	54.1	0.98	84	48.8	88	51.2		172	11.9
Supernatural/Religious	97	42.0	134	58.0	5.61**	130	52.3	101	43.7	3.39	129	55.8	102	44.1	2.92	231	15.8
Misfortunes & Accidents	17	48.6	18	51.4		16	45.7	19	54.3		20	57.1	15	42.9		35	2.4
Miscellaneous	2	16.7	10	83.3		2	16.7	10	83.3		4	33.3	8	66.7		12	0.8
Total	714		752			729		737			736		730			1466	100.0
Wishes: Critical χ^2 = 6.98 at p < .00833																	
Personal Possessions	391	61.7	243	38.3	34.08*	331	52.2	303	47.8	1.15	321	50.6	313	49.4		634	40.6
Success in School	82	45.8	97	54.2	1.09	77	43.0	102	57.0	3.22	85	47.5	94	52.5		179	11.5
Travel	81	55.1	66	44.9	1.33	62	12.1	85	57.8	3.29	82	55.8	65	44.2	1.74	147	9.4
Vocations & Future Career	94	37.3	158	62.6	15.75*	150	59.5	102	40.5	8.76*	126	50.0	126	50.0		252	16.1
Personal & Family Welfare	40	40.8	58	59.2	2.95	40	40.8	58	59.2	2.95	40	40.8	58	59.2	2.95	98	6.3
Others' Welfare	6	27.3	16	72.7		14	63.6	8	36.4		14	63.6	8	36.4		22	1.4
Food	30	81.1	7	18.9		17	45.9	20	54.1		17	45.9	20	54.1		37	2.4
Sports, Playing	6	46.2	7	53.8		6	46.1	7	53.8		10	76.9	3	23.1		13	0.8
Miscellaneous	9	34.6	16	61.5		14	56.0	11	44.0		11	44.0	14	56.0		25	1.6
To Be Good	22	24.7	67	75.4	21.75*	40	44.9	49	55.1		51	57.3	38	42.7	1.62	89	5.7
To Live Long	20	34.5	38	65.5		20	34.5	38	65.5		18	31.0	40	69.0		58	3.7
No Death	3	33.3	6	66.7		4	44.4	5	55.6		7	77.8	2	22.2		9	0.6
Total	784		779			775		788			782		781			1563	
Favorite Activities: Critical χ^2 = 6.44 at p < .01111																	
Home Duties & Chores	158	57.5	117	42.5	5.82**	116	42.4	159	57.8	6.41*	135	49.1	140	50.9		275	18.8
Playing, Sports, Games	322	50.4	317	49.6		329	51.5	310	48.5	0.51	291	45.5	348	54.5	4.91	639	43.6
Making Things	11	47.8	12	52.2		13	56.5	10	43.5		12	52.2	11	47.8		23	1.6
Reading & Studying	112	42.1	154	57.9	6.32*	135	50.8	131	49.2		147	55.3	119	44.7	2.74	266	18.1
Eating	53	60.9	34	39.1	3.72	45	51.7	42	48.3		55	63.2	32	36.8	5.56**	87	5.9
Excursions/Exploring	19	45.2	23	54.8		24	57.1	18	42.9		10	23.8	32	76.2		42	2.9
Attending School	6	66.7	3	33.3		6	66.7	3	33.3		8	88.9	1	11.1		9	0.6
Social Activities	44	55.7	35	44.3		29	36.7	50	63.3	5.06	40	50.6	39	49.4		79	5.4
Miscellaneous	22	47.8	24	52.2		25	54.3	21	45.7		26	56.5	20	43.5		46	3.1
Total	747		719			722		744			724		742			1466	

Table 5.19.--Continued.

Index/Categories	Age: Younger N	Age: Younger %	Age: Older N	Age: Older %	Age: χ^2	Sex: Boys N	Sex: Boys %	Sex: Girls N	Sex: Girls %	Sex: χ^2	Location: Urban N	Location: Urban %	Location: Rural N	Location: Rural %	Location: χ^2	Total N	Total %
Aversions: Critical χ^2 = 6.44 at p < .01111																	
Aggression/Violence/Injustice	265	48.0	287	52.0	0.80	271	49.1	281	50.9	0.15	278	50.4	274	49.6		552	42.0
Conflicts, Punishment	127	61.7	79	38.3	10.72*	95	46.1	111	53.9	0.82	91	44.2	115	55.8	2.57	206	15.7
Dishonesty	146	46.9	165	53.1	1.04	159	51.1	152	48.9		167	53.7	144	46.3	1.56	311	23.7
Disasters	48	46.6	55	53.4		56	54.4	47	45.6		45	43.7	58	56.3	1.40	103	7.8
Doing Chores	14	63.6	8	36.4		15	68.2	7	31.8		12	54.5	10	45.5		22	1.7
Poor School Performance	7	38.9	11	61.1		7	38.9	11	61.1		10	55.6	8	44.4		18	1.4
Miscellaneous	34	47.2	38	57.2		21	29.2	51	70.8		36	50.0	36	50.0		72	6.5
Denial of Necessities	15	60.0	10	40.0		15	60.0	10	40.0		12	48.0	13	52.0		25	1.9
Conflicts Between Parents	0	0.0	4	100.0		3	75.0	1	25.0		3	75.0	1	25.0		4	0.3
Total	656		657			642		671			654		659			1313	100.0
Worries: Critical χ^2 = 7.22 at p < .00714																	
School Work	97	45.3	117	54.7	1.69	92	43.0	122	57.0	3.93	107	50.0	107	50.0		214	16.4
Economic Anxiety	33	51.6	31	48.4		36	56.2	28	43.8		25	39.0	39	60.9		64	4.9
Loss/Accidental Damage	40	44.9	49	55.1		39	43.8	50	56.2	1.12	46	51.7	43	48.3		89	6.8
Punishment	124	52.5	112	47.8	0.51	109	46.2	127	53.8	1.22	129	54.7	107	45.3	1.87	236	18.1
Family & Social Relationships	14	40.0	21	60.0		19	54.3	16	45.7		15	42.9	20	57.1		35	2.7
Animals	9	60.0	6	40.0		7	46.6	8	53.3		7	46.7	8	53.3		15	1.1
Death & Dead People	75	44.4	94	55.7	1.92	92	54.4	77	45.6	1.16	75	44.4	94	55.6	1.92	169	12.9
Accidents/Disaster/Violence	16	69.6	7	30.4		10	43.5	13	56.5		16	69.6	7	30.4		23	1.8
The Supernatural/The Strange	156	50.0	156	50.0		171	54.8	141	45.2	2.70	167	53.5	145	46.5	1.41	312	23.9
Illness/Hospital/Doctors	54	53.5	47	46.5		48	47.5	53	52.5		46	45.5	55	54.5		101	7.7
Dreams	9	60.0	6	40.0		9	60.0	6	40.0		12	80.0	3	20.0		15	1.1
Law Enforcement Officers	2	50.0	2	50.0		2	50.0	2	50.0		3	75.0	1	25.0		4	0.3
Darkness	6	85.7	1	14.3		3	42.9	4	57.1		2	28.6	5	71.4		7	0.5
Miscellaneous	2	6.7	21	91.3		5	21.7	18	78.3		20	87.0	3	13.0		23	1.8
Total	637		670			642		665			670		637			1307	100.0
Fears: Critical χ^2 = 7.22 at p < .00714																	
School Work	1	100.0	0	0.0		0	0.0	1	100.0		1	100.0	0	0.0		1	0.1
Economic Anxiety	0	0.0	0	0.0		0	0.0	0	0.0		0	0.0	0	0.0		0	0.0
Loss/Accidental Damage	0	0.0	0	0.0		0	0.0	0	0.0		0	0.0	0	0.0		0	0.0
Punishment	3	23.1	10	76.9		4	30.8	9	69.0		7	53.8	6	46.2		13	0.8
Family & Social Relationships	1	38.3	2	66.7		1	33.3	2	66.7		3	100.0	0	0.0		3	0.2
Animals	298	60.2	197	39.8	20.20*	260	52.5	235	47.5	1.16	241	48.7	254	51.3	0.29	495	32.3
Death & Dead People	67	40.4	84	59.6	4.79	64	45.4	77	54.6	1.02	67	47.5	74	52.5		141	9.2
Accidents/Disasters/Violence	162	54.5	135	45.4	2.28	145	48.8	152	51.2		143	48.1	154	51.9	0.33	297	19.4
The Supernatural/The Strange	195	43.5	253	56.5	7.25*	224	50.0	224	50.0		227	50.7	221	49.3		448	29.2
Illness/Hospital/Doctors	5	41.7	7	58.3		8	66.7	4	33.3		10	83.3	2	16.7		12	0.8
Dreams	4	25.0	12	75.0		5	31.3	11	68.8		9	56.3	7	43.8		16	1.0
Law Enforcement Officers	3	42.9	4	57.1		3	42.9	4	57.1		2	28.6	5	71.4		7	0.5
Darkness	25	51.0	24	49.0		24	49.0	25	51.0		25	51.0	24	49.0		49	3.2
Miscellaneous	17	34.0	33	66.0		34	68.0	16	32.0		27	54.0	23	46.0		50	3.3
Total	771		761			772		760			762		770			1532	100.0

*Denotes significance.

**Just short of significance.

Curiosities

1.0 Biological phenomena was the area of greatest curiosity for all children. Physical Phenomena ranked second, and Supernatural/ Religious matters third.

1.1 No significant differences were found between the responses of younger and older children in this index.

1.2 There were no significant differences between the curiosities of boys and girls. However, percentages suggest that boys were slightly more curious about Supernatural/Religious matters, while girls were slightly more curious about Human & Animal Behavior and Misfortunes/Accidents.

1.3 Urban children were significantly more curious about Technology & Applied Science than rural children, while rural children were significantly more curious about Biological Phenomena than urban children.

Wishes

2.0 Personal Possessions were by far the most popular wishes of all the children, and accounted for more than 40 percent of the total responses for the index. The second most popular wishes were connected with Ambitions for Vocations & Future Careers, and the third most frequent wishes were for Success in School.

2.1 Significantly more of the younger children expressed wishes for Personal Possessions than older children, while significantly more of the older children expressed wishes connected with Ambitions for Vocations & Future Careers. To Be Good ranked

sixth in frequency of wishes and significantly more children from the older age set made this kind of wish.

2.2 Boys expressed significantly more wishes about Ambitions for Vocations & Future Careers than girls.

2.3 No significant differences were found between the wishes of urban and rural children, but percentages showed that more urban children expressed wishes about Others' Welfare and for Sports & Playing Equipment than rural children, while more rural children wished To Live Long and expressed wishes regarding Personal & Family Welfare more than urban children.

Favorite Activities

3.0 The favorite activities with the highest frequencies were in the Playing, Games, Sports category. Ranking second were activities connected with House Duties & Chores and third, Reading/Studying.

3.1 Significantly more older children responded to Reading/Studying and

3.2 significantly more girls responded to doing Home Duties & Chores.

3.3 There were no significant differences between the favorite activities of rural and urban children, but the percentages suggested that more urban children responded to Eating and Social Activities, while more rural children responded to Excursions.

Aversions

4.0 The largest number of responses in this index came in expressions of aversion toward Aggression/Violence/Injustice. Aversion to Dishonesty was second, while aversion to Conflicts with and Punishment by adults was third.

4.1 Significantly more of the younger children were averse to Conflicts with and Punishment by adults. Percentages showed that more younger children disliked Doing Chores and being denied necessities, while more older children disliked doing poorly in school.

4.2 There were no signficant differences between boys' and girls' aversions but the percentages indicated that more boys disliked Doing Chores and being denied necessities, while more girls were averse to doing poorly in school.

4.3 Rural and urban children showed no significant differences in their aversions, and percentages indicated just slight differences.

Worries

5.0 The Supernatural/The Strange constituted the greatest source of worries for all children, followed by worries regarding Punishment. The third most frequently expressed area of worry was School Work.

5.1 Chi square tests showed no significant age, sex, or locational differences. Percentages, however, showed that more older children worried about Family & Social Relationships, and more younger children worried about Animals, Accidents/Disaster/Violence, and Dreams.

5.2 More boys worried about Dreams, while slightly more girls worried about Darkness, Accidents/Disaster/Violence, and Loss/Accidental Damage to things.

5.3 More rural children expressed Economic Anxiety and worries about Darkness, while more urban children worried about Accidents/ Disaster/Violence, Dreams, and Law Enforcement Officers.

Fears

6.0 The greatest source of fear was Animals for all children, followed by The Supernatural/The Strange; fear of Accidents/ Disaster/Violence was the third most frequently expressed.

6.1 Significantly more of the younger children feared Animals, while significantly more of the older children feared The Supernatural/ The Strange. The percentages showed that more of the older children expressed fears about Death & Dead People and about Dreams.

6.2 Percentages showed negligible differences between boys' and girls' fears.

6.3 Negligible differences were also found between the fears of rural and urban children.

Part Two: Discussion of Findings

In this second part of Chapter Five, major findings are discussed, interpreted and where possible, explained in terms of the sociocultural system in Anambra, Nigeria. References are made to previous studies to point out findings similar to or contrasting with those made in this study. As was indicated in the review of literature, the investigator could not find any research done in Nigeria relating to the topic of this study. Thus in this section "flashbacks" to previous research are to those done with American children. It would have been more beneficial to compare the results of this investigation with studies based on Nigerian or African children, but such literature is lacking in the area of this study. The investigator, however, found one study in which Kenyan children had been used as research subjects.[1]

Curiosities

Children and adults alike often use questions to explore their areas of curiosity. Among many families, children are sometimes discouraged from asking questions. Some parents who do not understand the value of answering children's questions might put a ban on questions; others might just ignore them and some others might answer so sarcastically that children would stop asking. By whichever method, many children soon get the message that asking questions is not welcome. Henceforth, such children just cease to ask and either try to find answers to puzzling questions from each other, or they just accept things as they see them. The golden glow of

curiosity might thus have been effectively snuffed out quite early in the lives of such children. When asked, children from such backgrounds might be unwilling to or bashful in expressing their curiosity. It was to allow all children maximum freedom to express themselves that the open-ended questions were used. Against this background, the investigator found the results quite exciting. Results showed that objects and phenomena causing curiosity were varied but they could be broadly grouped into seven categories as shown in Table 5.1.

Curiosity about Biological Phenomena had the highest frequency and responses covered a wide range of subjects. Here are some examples, randomly selected from those classified in this category:

> How did man come to be? Why can birds fly and not man? Why are some snakes poisonous? How do plants "eat" in order to grow? Why don't trees move about like human beings? How are babies born?

One of the most common questions concerned the origin of man. This probably suggests a basic conflict between the biblical story of the creation which these subjects are familiar with and the practical daily references they hear made to childbirth. Indeed, a number of questions in this category concerned how a child enters the mother's "stomach," how it grows, and how it is born. The investigator remembered from the interviews that some such questions were asked by older female children and a check from some of the response sheets seemed to confirm this. When the detailed frequency matrix in Appendix C was consulted, it was discovered that more responses on Biological Phenomena were made by older girls in rural as well as in urban locations.

For the category under discussion, that is Biological Phenomena, slightly more of the older than younger children responded, as did almost the same number of boys and girls, but significantly more rural than urban children responded in this category. The investigator can think of no sociocultural reason why many more rural than urban children should respond in this category. It is, of course, possible that rural children are more nature-conscious and so have wondered more often than their urban brothers and sisters about bees and birds and human beings. Age did not make much difference to responses in this category, suggesting that both age sets have similar needs for information in this area.

The finding just discussed--that the area of greatest curiosity is Biological Phenomena--is similar to Byers'[2] finding. He reported the most frequently expressed curiosity of first graders to be science and nature. Thompson[3] also found nature frequently mentioned in children's questions. Baker[4] found interest in animal life having the highest frequency in his analysis of children's questions.

Questions relating to Physical Phenomena were the second most common in the Curiosities index. They included the following randomly selected samples:

> What is inside the mountains? If I dig deep down, what can I find? Can stars see us? Where does air live? Why is the sun so hot? Where does the sky end?

As in the case of Biological Phenomena, these questions concerned daily experiences which the children found puzzling. The results, Tables 5.1, 5.2, and 5.3, showed that differences within each variable were small, but girls asked more questions in this category than boys,

older children more than younger, and urban more than rural children. On the basis of the smallness of differences, this result suggests a uniform interest in this phenomenon among all the subjects.

Beggs'[5] report that questions about the sun, stars, and the earth were among the most common in a study of children's questions is similar to the finding just discussed, which showed curiosity about Physical Phenomena the second commonest area of curiosity.

The third most frequently expressed curiosity related to Supernatural/Religious matters (Table 5.1). Religion is an important factor in the lives of the Igbo people of Anambra state and this fact showed up repeatedly in the course of this study. Among questions asked in this category were the following, selected at random from the responses classified under the category:

> Who is God? Who created God? Where did God come from? How did God create everything in the world? Where do spirits go during the day? How can some people go to hell and others to heaven?

Belief in the existence of a "controlling power" is basic to Igbo cosmology and Christianity, which is widespread among the Igbos, reinforces this belief. This finding suggests that children are trying to understand adult forms of belief. Crippen[6] also reported that religion was a source of curiosity among Kenyan elementary school children.

Nearly 16 percent of the Curiosities responses in this study were in this category. Many more of the older than the younger age set responded in this category so that the chi square (5.61) is just short of the (5.99) significance level (Table 5.1). In both rural

and urban locations, more boys than girls expressed curiosity in this area but more urban than rural children were curious about these matters (Tables 5.2 and 5.3). The fact that older children were more curious about this than younger ones is not surprising. With their greater experience and growing mental sophistication, they are bound to wonder about certain views and concepts which they had accepted without understanding at an earlier age. There appears to be no ready explanation why more boys than girls should be curious about these phenomena unless one refers to the strong sex-role socialization practices among the Igbos. On that basis, girls would be expected to be more accepting of ideas, suggestions, rules, and regulations than boys. Applied here, girls would not be expected to question such fundamental issues as religious beliefs.

The investigator was surprised that responses in the Technology & Applied Science category made up only 14.5 percent of the Curiosity responses. Samples of randomly selected responses in this category are as follows:

> How are dresses colored differently? How do aeroplanes fly? How do motor cars move? How are clothes manufactured? How are bridges constructed? Who makes nails and other building materials? How are watches made?

Crippen[7] found that applied science was the most frequently mentioned area of curiosity in his study of Kenyan children. Based on her own observation, the investigator thought that the interest and wonder with which some children regarded mechanical gadgets was common enough that the subjects of this study would ask many more questions about such things. But it is likely that in spite of the commonness

of such gadgets, both adults and children are not sufficiently familiar with them to take more than a superficial interest in them. As a matter of fact, a "don't touch" aura is built around possessions such as stereos, watches, and calculators, among some people. Since such articles are imported and not home-manufactured, an in-depth understanding of their basic operational mechanism is often lacking; there is thus always a fear of their getting "spoiled" and becoming useless. Further, because they are imported they are usually quite expensive and an owner tries to get as much use out of the gadget as possible; hence children are generally discouraged from handling mechanical gadgets. Also, in the absence of large-scale industrialization in Anambra state, children's toys are not mechanical. Thus from all considerations, children actually have very little experience with mechanical things--hence their limited interest.

There was very little difference in the number of younger and older children's responses (Table 5.1). One can see that children of both ages need contact with technical and applied science materials equally. Boys showed slightly more curiosity than girls, but urban children were significantly more curious than rural children about such issues (Tables 5.2 and 5.3). The fact that girls showed almost as much interest as boys in this category suggests that later sex-role stereotyping rather than lack of interest or ability is responsible for turning girls off applied science subjects at higher educational levels. The fact that rural children showed significantly less curiosity about this factor is probably based on their more limited experience with such materials.

Human & Animal Behavior, which accounted for nearly 13 percent of the Curiosities responses, should be viewed alongside the children's interest in Biological Phenomena, which has already been discussed. The children's curiosity about human and animal behavior indicates a growing awareness of their social surroundings, suggesting interest in social science. The following randomly selected examples portray the types of responses classified under this category:

> Why do we eat? Why do people poison others? Why do some parents kill their children? Why are some people wicked, others kind? Why do human beings sleep at night? Why do people marry?

More such questions came from older children than from younger ones (Table 5.1), more from girls than from boys (Table 5.2), and just a few more from rural than from urban children (Table 5.3). In none of the variables was a significant difference recorded; there were only small differences, suggesting that interest in human and animal behavior was general. Similar curiosity about human behavior was reported by Crippen.[8]

Wishes

The most frequently wished-for things were Personal Possessions, making up 40.6 percent of the responses in this index (Table 5.4). Randomly selected samples included:

> To have money, to have good school uniform, to have a car when I grow up, to have shoes, to have television in our home, to have balls.

Personal possessions have always dominated children's wishes, as reported by Zeligs[9] and others. More than 60 percent of this type of wish were made by younger children, showing a significant

difference between older and younger children's responses in this category (Table 5.4). This finding is similar to results reported by Boynton,[10] Milgram,[11] and Witty.[12] In this study, slightly more boys than girls made this kind of wish (Table 5.5) and almost the same number of responses were recorded from rural and urban pupils (Table 5.6).

Looking at the findings regarding Personal Possessions from the point of view of child development, the elementary school years are the years when collections or as Stone and Church[13] prefer "aggregations" are so important. At this developmental stage, particularly with younger children, to own things appears so important, giving them the grown-up feeling which they treasure during these years. Much of the school-age child's "property" might look like junk to adults, but to the owner they are more valuable than the adult's gold.

The investigator was interested to find that many of the material things the children wished to have were much the same things that adults are interested in. Wishes for toys and play materials were few and were probably made by children from higher socioeconomic backgrounds.

The second most frequently expressed wishes were connected with Ambitions for Vocations & Future Careers (Table 5.4). Random samples of this kind of wish included:

> To be a teacher, to be a footballer, to have university education, to have a good husband, to become a civil servant, to become an engineer.

The third most common kind of wishes had to do with Success in School (Table 5.4). The results of these two categories should be discussed together because they appear to be related. Randomly selected examples of responses classified under Success in School included:

> God's help to pass examinations, money to buy school books, to be brilliant, to have plenty of books for my schooling, to read my books successfully, to pass all my examinations.

Jersild and Tasch[14] as well as Witty and Kopel[15] reported that wishes for school success were infrequent in their studies. The opposite is the case in this study, partly explainable by the tremendous potential attributed to education as a social lever in Nigeria. Even though elementary and much of subsequent education is now free in Nigeria, no one takes things for granted. Parents and other adults constantly remind children that the most reliable route to obtaining such status-conferring possessions as cars and good homes is by getting a good education which would lead to a good job and to social status.

As would be expected, significantly more of the older children expressed wishes regarding vocations and future careers (Table 5.4). This finding is similar to that related by Zeligs[16] and Milgram.[17] Significantly more boys than girls expressed wishes about vocations and future careers (Table 5.5). The explanation for this might be found in sociocultural sex-role socialization. In Anambra state many professional and leadership positions still appear to be men's preserves, in spite of pressure from women. The stereotypic view still regards men as "natural" leaders, particularly in the professions. One is not surprised that children are already socialized into this pattern of thinking.

It is interesting to note, however, that even though more boys than girls expressed wishes about vocations and future careers, more girls expressed wishes regarding school success (Table 5.5). In her study of children's wishes, Zeligs[18] also reported that girls expressed more wishes for school success than boys. In the United States, the greater diligence and concern shown by girls in school work is well documented; the same may well be true of the girls among these Anambra children.

Wishes To Be Good ranked sixth and accounted for only about 7 percent of the Wishes responses, but significantly more of the older than the younger children expressed this kind of wish (Table 5.4); more girls than boys (Table 5.5) and more urban than rural children (Table 5.6) also expressed this kind of wish. Examples of such wishes randomly selected from the wishes in that category included:

> To live in peace with neighbors, to be a good citizen, to be useful in the community, to be a good Christian, to do the will of God, to obey parents, teachers and older people.

It is not surprising that the majority of this kind of wish was expressed by older children. They should, after all, be more aware of social expectations and among the Igbos, this includes "being good," that is, doing the socially approved thing and generally toeing the social line. From a developmental point of view, this finding attests to the truth of the observation made by Stone and Church[19] that even as the elementary school child turns his back on adults, he continues to take on adult values, at the same time that he resists them. Thus socioculturally and developmentally, these findings are explainable.

The more frequent expression of this kind of wish by girls (Table 5.5) is also explained from a sociocultural and stereotypic viewpoint. From both viewpoints, the female is expected to be more conforming, to value approval, which means being considered "good."

Favorite Activities

The most frequently mentioned favorite activities were in the Playing, Sports, Games category (Table 5.7). Randomly selected responses classified in this category included:

> Jumping, running, playing football, moonlight games, playing with other children, playing basketball, playing ball, playing oga games, relay races, rope skipping, swimming, marching to bands, group dancing.

This finding about the popularity of playing is similar to results reported by Jersild and Tasch,[20] who found outdoor play, games, and sports the favorite activities of the elementary school child. Similar results were also reported by Foster.[21]

There was very little difference between the frequency of responses of older and younger children (Table 5.7), but more rural than urban children made responses in this category (Table 5.9). This is similar to what Nancy Larrick[22] reported: that more rural children mentioned playing as a source of fun than urban children. Slightly more boys than girls responded in this category (Table 5.8). There seems to be no sociocultural explanation for this result except that in Anambra, boys are more likely than girls to have free play time. Girls are more apt to stay indoors doing chores. When the detailed matrix (in Appendix C) was consulted to see if more boys within each variable responded, it was found that there was no

consistency in the responses. For example, among rural children, the matrix showed that more of the older girls responded in this category but among urban children, more of the older boys did.

No significant differences were reported within any of the variables, indicating that generally the children were similar in their views on this category. This finding is not surprising in a climate where, but for the rainy season, the weather is fine throughout the year; outdoor play is bound to be the most popular form of recreation for children.

Performing Home Duties & Chores was the second most favored activity among the subjects (Table 5.7). Nearly 19 percent of the total index responses were made for this category. Among others, the following duties and chores were mentioned in the children's responses:

> Fetching water, running errands for my parents, helping my mother with housework, washing my school uniform, sweeping and cleaning the house, working on the farm, looking after younger brothers and sisters, washing plates, cooking.

This result is similar to Crippen's,[23] who reported that home duties was the second most popular activity among Kenyan elementary school children.

In Anambra, Nigeria, mechanical labor-saving devices are rare in homes; this means that children have to help around the house probably more than they do in the United States. Parents supply necessities to children as part of their regular parental obligation and in return expect cooperation and help with housework and duties around the house. The discharge of these duties is also a demonstration of

loyalty and family solidarity. Children grow up knowing that they are expected to do these duties and they accept them as obligations and not as impositions. During the interviews it was interesting to note that many children replied that if they had free time they would clean the house, fetch water, or help mother. Though one is entitled to wonder if the children were responding in the way they knew would please the adult interviewers, yet these children's concept of free time seemed to be limited to times when there were no house chores to do. It is puzzling to find that many more of the younger children (almost significantly more) indicated that they enjoyed home duties and chores (Table 5.7). Older children traditionally have more duties to perform in the home. Perhaps it was precisely for that reason that more of the younger children "enjoyed" the chores. Since the younger ones would have lighter duties and chores to perform, this could be turned into play much of the time, but such would not be tolerated in older children, who would be expected to be more serious and thorough. The popularity of this category should also be viewed from the perspective that chores, such as fetching water, running errands, being sent to the market, provide ample opportunity for peer interactions. Water fetching either in a stream or from a public tap is more often than not done in the company of peers and most children welcome such opportunity. Often such chores enable the youngster to have more fun that if he stayed at home. Children, especially younger children, do find ways to enjoy these duties.

There was very little difference between the responses of rural and urban children (Table 5.9), but significantly more girls than boys responded in this category (Table 5.8). This has a socio-cultural explanation. As mentioned elsewhere, girls in Anambra have more home duties than boys. Witty reported a similar finding in a study with American children.[24] It is part of Igbo sex-role training to assign more house duties to girls in order to keep them at home, busy, and out of mischief. Besides, this is part of their apprenticeship as future housewives and mothers. Thus, diligence and care in the discharge of household duties are reinforced in the form of greater parental attention, praise, and commendation, all of which are valued by children at this stage. Girls whose parents commend as effective in discharging household duties are confident about their adult roles.

Reading/Studying had more than 18 percent of the responses in the Favorite Activities index and was the third most popular of the Favorite Activities (Table 5.7). Randomly selected sample responses were:

> Reading, being active in class, reading books, reading in class, studies, studying, doing English in class, being helped with my lessons at home.

This finding is similar to Crippen's,[25] who reported that academics was the most frequently mentioned favorite activity of the Kenyan pupils he used in his study. The importance attached to schooling and school-related activities in Anambra has already been referred to. This finding further confirms what was said earlier. It should further be noted that another category in this index, Attending

School, is related to the category under discussion. Though only nine responses were recorded for that category, it is noteworthy that some children found attending school so interesting as to be mentioned as a favorite activity. Reference has already been made to the contrast between this finding and Jersild and Tasch's, where school and school-related activities were rarely mentioned in a positive way.

Older children responded significantly more in the Reading/Studying category than younger ones (Table 5.7). The older children, in Elementary 5 or 6, would be approaching the first in a series of "external" examinations scattered through the Anambra educational system so that Reading/Studying as a favorite activity is not necessarily limited to enjoyment of reading or studying but could also indicate a sense of duty, evidence of being conscientious.

Regarding sex differences, only four responses separated the boys from the girls (Table 5.8), and these were too few to warrant any more than to comment that boys and girls responded in the same way to this category. In several studies such as those by Norvell[26] and Feeley[27] it was found that girls read more than boys. The results of this study do not support these findings, and one can only speculate as to why not. It has been pointed out earlier that girls have more duties around the house than do boys in Anambra society. There are still parents, especially in rural areas, who might think of reading and studying as idle pastimes, and so discourage their daughters from developing interest in leisure-time reading. Some parents probably still believe that reading or too much education is ruinous to feminine character. Such parents would discourage their

daughters from developing interests in reading. It can be seen from Table 5.9 that more urban than rural children indicated Reading/ Studying as a favorite activity. Availability of books, in terms of public libraries and better school equipment, clearly favors the urban child. This finding is in line with Speers,[28] who reported that rural children had fewer choices open to them in terms of what interests to pursue.

Less than 2 percent of the Favorite Activities responses were for Making Things (Table 5.7). This finding deserves a special comment because this result is disturbing in a system where mechanization is still very limited. Handcrafts, including the making of bags, ropes, brooms, baskets, pots, and many other household items have always been a pride of the Igbo people. In a conscious effort to perpetuate this artistic tendency, schools from quite early in their history set aside a "handwork" period each Friday during which children explored making different crafts. However, two factors have worked against this recently. One is large-scale population drift from rural to urban areas which has made it very difficult to obtain handwork material cheaply in urban areas; the other, and to the investigator, more serious factor, is a piteous loss of perspective by the educational authorities. Since the 1970's, many schools in Anambra state have been content to accept as "handwork" finished products purchased from the market and brought to the school by children. School authorities probably do not realize that this default on their part has some serious implications, one being the suggestion, so early in the lives of children, that the creation of beauty by their

own hands is not important. In addition, children are denied the opportunity to learn and practice useful motor skills through manipulating different materials. They are denied the experience of the exhilarating pride and satisfaction which come from looking on one's own finished work. The neglect of so important an aspect of the child's development could have such unfortunate repercussions in future that the child's personality development, including his attitude to work, might be jeopardized.

The findings from the three interest indices discussed so far are on the whole similar to results found in the literature reviewed in Chapter Three. There is, however, one important difference: the absence in the children's responses of an indication of interest in the television. Of the nearly 4500 responses given in the three interest indices discussed so far, less than fifteen mentioned the television as a source of interest. This is in contrast to the great interest that children in the United States have in television. Witty[29] reported that since the 1960's watching television has been rated highest among children's favorite pursuits. Bailyn[30] and Miller[31] also reported that sixth graders spent a greater part of their time watching television than in any other activity. As mentioned earlier in this study, television sets are quite common in Anambra urban homes but are rarely found in rural homes. The reasons for this are many. One is the prohibitive cost of television sets, another is that the taste for television viewing is only just developing among the people, and a third reason is that programs are unavailable in some areas and where available are yet

very limited, lacking the variety and sophistication available in United States television. Elsewhere in this study the investigator has predicted that in fifteen years, if this study were repeated, the results would show evidence of the effects of television as an interest arouser. This suspicion is strengthened by the steps now being taken in Nigeria to establish many more television stations and to expand and diversify programs. Already the popularity of a number of particular TV programs among children and youth suggests that it will be only a matter of time before such programs become the focus of children's interest. The present anxiety of parents and teachers in the United States over the effects of television on children ought to serve as a warning to countries like Nigeria where the television is not yet an important social factor. The experience of the United States with the television suggests that though the TV can be an excellent educative medium, programs have to be carefully planned and presented in order to avoid abuses caused by such factors as over-commercialization.

Aversions

Of all the categories in this index, aversion to Aggression/Violence/Injustice received the largest number of responses, accounting for over 42 percent (Table 5.10). Randomly selected responses classified in this category are:

> Being punished for what I didn't do, false accusation, bullying by older children, maltreatment by seniors, telling lies against me, fighting, abusive words, seeing people being beaten, killing people, insulting my parents, teacher being partial to some people.

Aversion to unfair blame and punishment as found in this result is similar to that obtained by Zeligs,[32] who reported that expressed aversions of children included spankings, scolding, being blamed for what they didn't do. Crippen[33] also found aggression the area of greatest aversion among the children he studied.

This finding, in this study, is particularly interesting in view of the fact that peer group activities are at their peak during the developmental stage of the children used in this study. Since children spend much of their time together, they also quarrel and disagree frequently, but apparently their own ingroup disagreements are not the sources of concern since such disagreements are soon resolved within the group. Indeed, the tone of the responses here indicated a resentment against older children and adults. Among the Igbos, a good deal of deference is paid to age and "seniority" and in return the older person is expected to take care of the younger one. But this unwritten law is not always observed, especially among children who are within close age ranges. Some older adults are also mean to children and the findings shown in this result appear to be partly a protest against "might" being considered "right."

This result could also be interpreted from the point of view of the social situation in Anambra and Nigeria today. Nigeria emerged from a traumatic civil war seven years ago and though many of the children in this study were just being born at that time, some were already four years old when the war ended. But whether actually aware of the war or not, these children were likely to be well informed about the meaning of war. They must have been told or

have heard others being told about the brutality, destruction, violence, and injustice that went with the war. Almost certainly the study sample contained children whose families suffered bereavement of one kind or another during the war. Thus this finding could reflect some of the experiences of the children themselves.

Fifty-two percent of the responses in the Aggression/Violence/Injustice category (Table 5.10) were made by older children, probably reflecting their slightly greater social awareness. Boys' and girls' responses showed very little difference (Table 5.11); 49.1 percent were made by boys and 50.9 percent by girls. Between urban and rural children there was also virtually no difference--urban children made 50.4 percent as compared to 49.6 percent of the responses made by rural children (Table 5.12).

Aversion to Dishonesty, accounting for almost 24 percent of the responses, was the second most frequently mentioned. Random samples of responses classified under this category included:

> Taking my things without my permission, to tell lies, stealing, being greedy, cheating, gossiping.

Witryol[34] reported that aversion to dishonesty was strong among the children in grades seven through nine whom he studied.

One can see a similarity and some overlapping between responses in this category and those in the preceding one. Moral judgment appeared to be involved. Hurlock said, "Before [the child] can behave in a moral way, he must learn what the group to which he belongs believes to be right or wrong."[35] Fifty-three percent of the Dishonesty responses in this study were made by older children (Table 5.10),

again suggesting greater facility by the older child in expressing moral disapproval. Nearly 54 percent of the responses were made by urban children (Table 5.12) and 51 percent by boys (Table 5.11). Within none of the variables was a large difference found.

The third most frequently mentioned aversion was to Conflicts with and Punishment by Adults, accounting for nearly 16 percent (Table 5.10). This is similar to findings reported by Zeligs,[36] that making parents unhappy was one of the most disliked situations mentioned by sixth graders. Some examples of responses classified in this category were:

> Scolding by my mother, when my mother beats me, being punished by a teacher, being beaten by my older sister, disturbing my dad while he is resting, being disrespectful or disobeying one's seniors.

Relationship with adults has always been of immense importance in the development of children. When the relationship is unsatisfactory, development often suffers but when it is healthy, development usually thrives. It might be that older people generally, and older relatives particularly, play a more dominant role in the lives of children in Anambra than is the case in the United States.

Significantly more of the responses in this category came from younger children (Table 5.10). Developmentally the seven to nine year old is yet learning to belong to the peer group. He constantly needs to have reassurance, to be recharged from home in order to know that it is all right for him to belong to the group. Thus a good relationship at the home base with adults seems very important at this stage. The older children, eleven to thirteen year olds in

this study, are more confidently settled in the peer group. Stone and Church's[37] observation that middle-years children turn their backs on adults and cluster into peer groups would more truly apply to the eleven to thirteen year olds who, though still relying on adults, are able to operate away from adults for longer periods.

More responses, 53.9 percent, were from girls than boys (Table 5.11). This could be explained by the more sensitive inclination of the female, more sensitive to the quality of personal relationships, especially with adults. Among the Igbos, sex-role socialization teaches the girl always to be sensitive to the feelings of others, and to be respectful to adults. More rural than urban children expressed this aversion (Table 5.12). The investigator can think of no explanation for this.

Attention is called to the Miscellaneous category in this index. Of all the indices, Aversion had the largest percentage of responses falling into its Miscellaneous category. The investigator interpreted this as showing that the aversions of the subjects were not as homogenous as their curiosities, wishes, favorite activities, or worries. It could also be that the categories in this index were not sufficiently broad based. However, this does not appear to be the case because the investigator found a great deal of variation among the responses classified under Miscellaneous in this category. As an example, a random selection of responses classified under Miscellaneous contained the following:

> Eating yams, going late to school or duty, seeing ghosts, being woken up too early, parents who are strict.

Worries and Fears

Together, worries and fears constitute some aspects of anxiety. The same categories were used to classify responses in the Worries and Fears indices, because responses were very similar and in several categories they were found to overlap considerably. Studies were cited in the review of literature to show that younger children's apprehension is often in the form of fears, but that as they grow older, worry becomes an important emotional factor. Aware of the possible difficulties inherent in distinguishing between worries and fears, especially for the younger child, during the interviews the investigator stressed the importance of this distinction to the interviewers. Ideally the indices, Worries and Fears, in this study should be the components of one index, such as Anxiety, but since they were measured separately, they are reported separately in this study. It would be beneficial, however, to examine the findings from the two indices side by side. Looking at the results (Tables 5.13 and 5.16), it appears that the categories, The Supernatural/The Strange and Death & Dead People constituted sources of worry as well as sources of fear. These two categories are discussed across the Worries and Fears indices in order to spotlight the overlapping.

The category The Supernatural/The Strange seems to constitute a good example of where fear and worry merge into one another. In the Worries index (Table 5.13), this category received the highest number of responses, nearly 24 percent of the responses for that index. In the Fears index (Table 5.16), it ranked second, receiving more than 29 percent of the Fears responses. One can thus see that the

phenomena portrayed in that category constitute a source of considerable anxiety to the subjects of this study. This is similar to results reported by Jersild and Tasch,[38] in which 20 percent of their subjects named supernatural events and beings among things that frightened them most. Maurer[39] also found supernatural beings among the second most feared objects reported by his subjects, while Pratt[40] reported that K-4 children included the supernatural as a dominant source of fear. Randomly selected samples of responses classified here were:

> Things which at night look like ghosts, ghosts, evil spirits, masquerades, those who have no hands or legs, juju, fairies, mermaids, God's anger, strange noise at night, apparitions, angels, witches, a person bandaged all over, fear of God.

Social and cultural beliefs lie partly at the root of this kind of apprehension. The masquerade, fear of which was probably the most frequently indicated in responses to this category, is an Igbo cultural phenomenon. Theories of its origin and the deep and complex symbolism which it signifies among different Igbo communities are a source of continuing debate among social scientists. This investigator does not feel qualified to join in the debate. However, the masquerade--in its simplest form, a man wearing a facial and body mask--appears on special cultural occasions. Among some Igbo communities the physiognomy of the mask and the colors of its raiment often portray the mood of the occasion. Dull and angry colors might suggest solemnity and even danger, while the brightly arrayed masquerade is usually youthful and mischievous. In a solemn mood the masquerade is believed to be loaded with supernatural powers, including

that of slaying its victim by a mere look or the wave of the whip which is part of its regular accoutrement.

In recent years, the masquerade, like many features of Igbo culture, has become contaminated by Western culture. These days, neither its dignity, solemnity, nor its deep cultural symbolism is maintained, as children indiscriminantly turn themselves into masquerades in cities and villages alike. Children's masquerades have no cultural symbolism, of course; they merely entertain crowds by dancing and playing mischievous pranks during Christian and national festivals. However, they still carry the whip, still wear frightening faces, and according to these findings constitute a source of apprehension.

Anxiety caused by the cultural phenomenon described above is often enhanced by a readiness to believe in the power of witchcraft or in such supernatural powers as are ascribed to masquerades, and an inclination to believe in any rumor for that matter. An example of how rumors could assume epidemic proportions can be illustrated by stories that were circulating at the time the investigator was collecting these data. These stories were about bands of kidnappers who were said to snatch children off the streets. Indeed, many responses classified under Disaster/Violence in the Worries and Fears indices mentioned kidnapping as a source of apprehension.

Under the Worries index the same number of responses was given by younger and older children in The Supernatural/The Strange category (Table 5.13) and under the Fears index, significantly more of the older children responded in this category (Table 5.16). This

probably portrays the older children's greater social awareness and their search for an understanding of these matters. Under Worries, 54.8 percent of The Supernatural/The Strange responses were made by boys (Table 5.14), but under Fears the same number of responses was recorded for both sexes (Table 5.17). The investigator cannot think of a reason why more boys than girls should be anxious about this phenomenon. If anything, the opposite would be expected on the basis of sociocultural expectations of the male. Under both Worries and Fears, slightly more urban than rural children expressed this kind of anxiety; under Worries 53.5 percent (Table 5.15) and under Fears 50.6 percent of the responses came from urban children (Table 5.18). Since the rural child might be more familiar with such things as the masquerade, this finding appears reasonable.

Another category which showed some overlapping between Fears and Worries is Death & Dead People. It was the fourth greatest source of worries and accounted for 12.9 percent of the responses (Table 5.13). Under Fears, it also ranked fourth and made up 9.2 percent of the responses (Table 5.16). This finding is similar to Crippen's report[41] that in his study about one-fifth of the anxiety responses had to do with death. Random samples of responses categorized here included the following:

> Death, death of people, dead people, death of father during the war, a sudden death, dying, death of a relative, if I should die, in case of father's death.

Death, to Anambra children, is not shrouded in the same mystery that it is in the United States. This is not saying that children actually understand the meaning of death, but they do see more of what actually

goes on, since funerals are usually held in the home. Apprehension about death might include anxiety about pain, loneliness, lying still, the strangeness of no longer seeing a person who used to be around. Contemporary religious beliefs, Christian as well as traditional, might be a factor in anxiety about death. The dead person's spirit, believed by so many religious sects to be about in the world, is usually feared. Here, in fact, fear of the dead merges with fear of the supernatural, fear of darkness, and fear of graveyards.

In the Worries index, 55.6 percent of the Death & Dead People responses were made by older children (Table 5.13). In the Fears index, a greater percentage (59.6) of the responses in the Death & Dead People category also came from older children (Table 5.16). The greater concern shown by older children in this category might be due to the fact that they, more than younger children, have had more experience of and exposure to death situations, and have experienced the pain of losing a loved one. Under Worries, 54.4 percent of the Death & Dead People responses came from boys (Table 5.14), while under Fears, boys gave 45.5 percent of responses in that category (Table 5.17). Under both Worries and Fears, rural children responded more to the Death & Dead People category, giving 55.6 percent of the responses under Worries (Table 5.15) and 52.5 percent under Fears (Table 5.18). This result might be due to the fact that rural life style provides more opportunity for the child to experience funerals, the loneliness, and perhaps the scary feelings that could accompany a death.

The rest of the results do not show as much overlapping between Fears and Worries as was the case in the two categories discussed above. The rest of the findings are discussed as they occur within the Worries index, and then within the Fears index.

Worries

The category with the highest frequency, The Supernatural/ The Strange, has already been discussed. Worries about Punishment ranked second and accounted for 18.1 percent of the Worries responses (Table 5.13). Fifty-one and one-half percent of the responses were made by younger children (Table 5.13); 53.8 percent were made by girls (Table 5.14) and 54.7 percent were made by urban children (Table 5.15). A random sample of responses classified in this category included:

> Teacher's punishment when I can't answer his question, scolding by my parents when I lose the key, when I damage valuable things, being reported to the teacher, threats of punishment by my mother.

The third greatest source of worry according to these results was from School Work. This category accounted for 16.4 percent of the Worries index responses (Table 5.13). A similar result to this finding was reported by Angelino.[42] Worries about school were also reported by Pintner[43] and Zeligs.[44] Random samples of responses included the following:

> About exams, to pass my examinations, to fail exams, information about exams, how to progress in school, if I fail the subjects in the class, examinations worry me, whenever it is time for geography tests, examinations, when I fail to do homework, tests in Modern Mathematics.

The fact that more than 16 percent of the Worries responses were concerned with school work and examination is another evidence of the

importance attached to schooling and passing examinations in Anambra and in Nigeria as a whole. These responses were not recorded at the period of a major examination, and yet anxiety about examinations is clearly obvious from the above samples. As would be expected, older children showed more anxiety about this than younger ones. They made 54.7 percent of the responses (Table 5.13), but ordinarily one would have expected more difference than this. Considering the sex variable, 57 percent of the responses were made by girls (Table 5.14). This is only a small difference. However, studies in the United States seem to suggest that girls do better in school and worry more about school work[45] than boys. Such studies have not been done in Nigeria, and the findings from this study were not conclusive because the difference between boys' and girls' responses was so small that it is probably unimportant. An identical number of responses was recorded from urban and rural children (Table 5.15). It might be imagined that urban children would worry more than rural children about school work in view of the greater social pressure characteristic of urban life style, but let it be borne in mind that rural children from quite early come to realize that good education, reflected in good school work, is their only hope of escape from the disadvantages of rural life. Living in the rural area is regarded as a disadvantage in Nigeria, and children generally look upon schooling as an avenue towards obtaining jobs in the city. Thus education in this situation is not regarded only as a powerful social lever, but as a means of escape from a humiliating, toil-ridden life style. Under these circumstances, the value of schooling may well become

misrepresented and education could be regarded as a talisman rather than the functional tool for improved living which it should be.

Worries caused by illness, loss, or damage to things by accident were among other concerns expressed by the children. The investigator had a special interest in observing the responses on Dreams and (Fear of) Law Enforcement Officers as sources of apprehension. The interest in dreams was based on the investigator's feeling that since superstition is common among some sections of the population, belief in dreams as omens and as forecasts of future happenings might be quite prevalent. The results did not support this belief. Dreams accounted for 1 percent of the Fears responses (Table 5.16). On this basis, one can conclude that among these children dreams did not constitute an important source of concern.

The investigator's interest in Law Enforcement Officers was based on the fact that Nigeria has been under military rule for more than ten years and occasionally civilian/military disturbances occur. Further, the recent civil war in Nigeria has led to the conspicuous presence of soldiers, sometimes armed, on streets and public places. Not every citizen can distinguish between a soldier and a policeman and to some they might both signify force. However, the finding as shown in the responses recorded in the (Fear of) Law Enforcement Officers category does not support the view that the presence of law officers is a source of anxiety to the children studied. Less than half of 1 percent of the responses for Worries (Table 5.13) and also for Fears (Table 5.16) were recorded for this category.

Fears

Table 5.16 indicates that by far the greatest cause of fear was related to Animals. Nearly a third of the responses for the Fears index were for fear of animals. Animals have always figured prominently in studies of children's fears. Jersild[46] reported that more than a quarter of the subjects in his study mentioned animals as the greatest source of fear. Witty's[47] study with grades one and two children showed animals to be the greatest source of fear. Maurer[48] also reported similar results. Examples of fears classified here included the following:

> Snakes, cats, goats, elephants, lions, dogs, cows, wild animals, frog, lizard, tiger, chimpanzee, scorpions, dogs that bite, monkeys, tortoises, gorilla, pigs, mad dogs, barking of a dog, pythons, wildcat, harmful insects.

C. W. Valentine[49] pointed out the similarity between the curiosity and fear children have of animals. This study seems to show a similar link between curiosity and fear because referring back to the Curiosities index, two categories, Biological Phenomena and Human & Animal Behavior, had to do with animals. The highest frequency of responses in the Curiosities index was made for the Biological Phenomena category and in this index, Fears, the highest frequency was for the Animals category. In each case younger children recorded more responses than older children. These findings are similar to results reported in previous research on children's fears which were cited in the literature review.

In this study, one can see from the response samples above that the variety of animals feared is considerable, including some,

like goats, with which most subjects should be familiar. It is not always the animal per se that causes fear but perhaps the way it looks or moves (e.g., the tortoise), its limbs, or the way it cries (e.g., the frog). It is also likely that one unhappy encounter with an otherwise harmless animal might lead the child to develop a permanent dislike of that particular creature. Some children tend to tease animals and an animal like a dog or cat would react with a scratch or a bite and this becomes the basis for fearing all such animals. A cultural factor is that in Anambra, house pets, though common, do not assume the same high, "one of the family" status they tend to do in the United States. Furthermore, some people tend to presume that animals are generally unfriendly. Children who grow up with this attitude might expect a bite from a dog or a scratch from a cat just by virtue of their being animals. Quite often, too, children who have this kind of prejudice are likely to be the animal teasers who might throw things at animals and thus get even more frightened by a retaliation from the animal.

A large number of responses in this category mentioned fear of snakes. In Anambra the expression "snakes that bite" might sound redundant because most snakes seem to bite. Thus to express fear of snakes is to express fear of being bitten. In such circumstances, snakes are regarded as dangerous and Anambra children would be quite surprised to see some American children playing with snakes or bringing them to school! The concept of the friendly snake is probably as foreign to some of them as that of snow!

While interviewing some of the children, the investigator was struck by the number of children who mentioned fear of such rare animals as lions, tigers, and elephants, so she asked several children if they had actually seen or come into contact with these animals.* The answer was always, "No, but we have been told they are big and dangerous." One rural child volunteered the information that she had seen a tiger and some urban children said they had seem them in zoos or on television. Watson's comments in relation to Jersild's findings on children's fears appear to apply here. Watson noted that many fears of children between ages five and twelve were unrealistic. He said that remote dangers such as fear of wolves, even tigers, also loomed large.[50]

In line with previous research results, significantly more of the younger children in this study expressed fear of animals (Table 5.16). This is similar to findings by Maurer,[51] Witty,[52] and Jersild,[53] among other investigators. Slightly more boys than girls expressed this kind of fear (Table 5.17). The investigator can not find any explanation for this; indeed, the stereotypic concept of the brave and daring male should have led to the opposite result. Slightly more rural than urban children expressed this fear

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*This investigator is always amused by the stereotypic view of Africa held by many American children as well as adults, of roaring jungles where tigers, leopards, elephants, and hippopotamuses roam in happy harmony with humans! The truth of the matter is that except in safari areas, many Africans never see anything wilder than snakes unless they were hunters or went to the zoos. The wildest thing which the present author, who grew up in a typical village setting in Nigeria, ever saw as a child was a dead fox. Small animals and insects such as scorpions, spiders, ants, millipeds, and snakes are common but not tigers and elephants.

(Table 5.18). This is probably because rural children are more exposed to harmful animals such as snakes than are urban children, even though rural children also have more experience with friendly animals. However, the differences were quite small.

Nearly 20 percent of the Fears responses were for Disaster/ Violence (Table 5.16). There is plenty of background for this anxiety. As already explained, Nigeria emerged from a three-year civil war seven years ago, the aftermath of which is still evident in various forms. Besides observable evidence, stories, constant adult references, and songs based on civil war themes provide ample reminders to children of the tragedy that was so recent. Nigeria is still under military rule and the presence of soldiers on streets, among other factors, is a constant reminder of the recent past. The scream of sirens heralding the approach of some military dignitary, military parades on national day anniversaries, and the series of coups and counter coups that have taken place in Nigeria in the last ten years all contribute to a feeling of unease. Many families from which the subjects for this study came may have experienced loss of various kinds as a result of the war; thus children may have first-hand experience of these phenomena.

Another factor that can be used to explain this finding is the high rate of automobile accidents in Anambra and Nigeria. With greatly increased numbers of motorcars on roads which were not built to carry such heavy traffic, and given the high speed at which people drive, fatal motor accidents are quite frequent. Indeed, a school child from one of the sample schools for this study was killed as he

tried to cross the highway during the week of this study. Examples of fears caused by the phenomenon under discussion are provided by the following random samples of responses classified in this category:

> Gunshot, war, rumors of war, armed robbers, those that kill people, kidnappers, motor accidents, kidnappers and murderers, motor vehicles, kidnappers of children, gunfire, coups.

Many of the responses expressed fear of kidnappers, probably as a result of strong rumors circulating at the time of this study, that child kidnappers were about in the communities. More of the younger children expressed this fear (Table 5.16)--probably because they lack an understanding of social processes and are more easily frightened. Among boys and girls (Table 5.16) and also between rural and urban children (Table 5.18) there was very little difference. On the whole, there was very little difference, within the subgroups.

Some of the studies referred to in the review of literature showed that younger children have more fears than worries, while older children worried more, often about social relationships and the future. As noted earlier, the distinction between fears and worries is not always clear cut. Yet those categories in this study such as Animals, Accidents/Violence, which can be regarded as dealing more with fears than worries, showed many more responses from younger children. In the Fears index, nearly 60 percent of the Animals responses and nearly 55 percent of the Accidents/Violence responses were made by younger children (Table 5.16). On the other hand, reference to the Worries index shows that School Work, Family/Social Relationships could be said to deal more with pure worries than fears (Table 5.13). For School Work nearly 55 percent and for Family/

Social Relationships[54] 60 percent of the responses were made by older children (Table 5.13). On these bases one can conclude that the trends identified in reviewed literature--that younger children have more fears, while older children have more worries--are also present in this study.

A Conclusion

As already noted in the summary of the findings of this study, age was the variable yielding the greatest number of significant differences in the findings. Many of the studies discussed in the review of literature on children's interests most frequently reported age differences; occasionally reported sex differences and only a few differences based on physical location were reported. One might argue that many more studies on children's interests have been done with the express purpose of examining the effect of the age variable. That raises the question: why age? This investigator suspects, and this study provides one more example, that age has been consistently found the most powerful variable influencing children's interests. Differences resulting from the sex variable in this study were small, and from the physical location variable even smaller.

Summary

In the first part of this chapter, data were analyzed on the bases of the research questions posed; findings were reported by means of discussion and tables showing frequencies, percentages and chi square results for each of the six indices. A summary of the findings was compiled and illustrated on a table. The second part

of the chapter presented a discussion of the findings, which included references to previous research, and the contributions to the findings of this study of the special sociocultural background of the location in which the study was done. The final chapter presents the summary and conclusion.

CHAPTER VI

SUMMARY AND CONCLUSION

This chapter, the summary and conclusion of this study of children's interests and concerns, is presented in three sections: The Summary, the Implications of the Findings, and the Conclusions.

Summary

The Purpose and Need for the Study

The purpose of this study was to identify and analyze the interests and concerns of elementary school pupils in Anambra state, Nigeria. A knowledge of children's interests and concerns is important to the educational administrator for an imaginative planning of the elementary curriculum, and to the classroom teacher for planning day-to-day activities. This study will add to the sparse Nigerian literature on child development, while its results will provide much needed material for teacher education.

The Background

The background of the study included a description of the political and social conditions in Nigeria and the educational system in Anambra state, where the study was done.

Nigeria, located on the west coast of Africa, is rich in petroleum and has the largest population, about 70 million, among

African countries. It has been under military rule since 1966 and in 1976 became a federation of nineteen states as part of its post-civil war (1967-70) reconstruction program. Arrangements for a return to civilian rule are far advanced and include elections into local councils, the preparation of a draft constitution, and elections into the Constituent Assembly, a body to debate the draft constitution.

A year ago, 1976, the Universal Primary Education plan was started insuring free education to all primary school age children. Other plans are afoot to make education free beyond the elementary level. The six-year elementary schooling is followed by a five-year secondary and then three- to five-year higher education (university) programs. Technical and professional courses are available in poly-technics and colleges of technology, while graduate courses in various fields are available in some of the older universities.

Anambra state, one of Nigeria's nineteen states and the home of some Igbo communities, was the base of this study. It was one of the civil war theatres but has largely recovered from the physical and other damages it suffered as a result. Rural Anambra citizens are farmers, while urban occupations include civil service jobs, business, trading, nursing, teaching, medical and law practice.

Education in Anambra, as in Nigeria as a whole, is organized on a three-tier system beginning with the elementary school. The bulk of teachers for the elementary school are professionally prepared in training colleges called Grade II Teachers Colleges. The curriculum of the elementary school is largely based on the official guidelines, the Syllabus, issued by the State Ministry of Education.

The Syllabus is addressed to the teacher in the form of suggestions and advice regarding subject matter areas, teaching strategies, teaching aids, and evaluative procedures. The investigator identified four issues which she considered crucial to elementary education in Anambra state: the recognition accorded to the child's language relative to that accorded to English, the language of the school; the disparate conception of the teaching/learning process; the chronic question to relevance; and the fundamental importance of good professional preparation of elementary teachers.

Literature Review

A review of the literature and research related to the topic of this study was made under the following subheadings: the Nature of Interests, Variables that Affect Interests, Interests and the Learning Process, Interest Indices, and Concern Indices. No study related to this research, based on Nigerian children, could be found. Thus the reviewed literature dealt with studies based on American children.

The literature suggested that interest permeates all other personality components such as attitudes and values, and uniquely depicts the personality of the individual. Skill might encourage the development of an interest but among factors that affect interest development are values, age, sex, and social class. In origin, interest is linked to, but different from, basic human needs. It is also different from a drive and a preference. Interests were defined as objects, relations, skills, goals, and activities that actively engage one's selective attention.

Watching the television, identified as the dominant interest of American elementary school children, is influenced, as are reading interests, by age and sex. Younger children prefer situation comedies and cartoons among television programs, while older children enjoy family situation comedies more. In reading prior to the age of eight, children enjoy fairy tales, fantasy, nature, and animal stories. But from about the age of nine, at which time sex becomes an important factor in reading interests, boys prefer travel, war, adventure, and mystery stories, while girls continue to like animal stories and westerns up to adolescence, at which time love stories begin to dominate girls' reading interests.

Among techniques used in studying children's interests reported in the review was the identification of their curiosities, wishes, and favorite activities. Children's curiosities were found to cover a wide range of topics, but with animals and plants reported as arousing the curiosity of younger children more often. Phenomena concerning personal and social relationships made older children, especially near puberty, more curious than anything else. Children's wishes, especially at a younger age, were dominated by personal possessions but wishes of this kind decreased with age while older children's wishes dealt more with the future, school success, and social relationships. With regard to favorite activities, apart from watching television and reading, the literature showed that children were also interested in games, helping with duties at home, and making things.

Children's concerns were studied by identifying their aversions, worries, and fears. Among the aversions frequently reported were spankings, being unjustly blamed or punished, and making parents unhappy. Older children were reported as having more aversions to disturbance of personal/social relationships than younger children. Fear of animals was reported as the dominant form of apprehension for younger children, whereas in older children worries, especially about school work, social relationships, and the future were reported as important.

Methodology and Design

The study was designed to examine the effects of three variables: age, sex, and physical location on the interests and concerns of elementary school children.

The study subjects consisted of 528 elementary school pupils selected from twelve schools in Anambra state, Nigeria. The sample contained equal numbers of younger and older children, boys and girls, and rural and urban pupils.

The major research instrument was a six-item open-ended questionnaire containing three interest indices and three concern indices. The interest indices were Curiosities, Wishes, and Favorite Activities while the concern indices were Aversions, Worries, and Fears. The questionnaire was administered by means of structured personal interview to the children. Prior to the final study a pilot study was conducted as a means of validating the instrument and establishing its reliability. Expert validation of the instrument was obtained

in discussions with teachers and professional educators. The pilot study also generated data necessary for constructing categories which were required for coding the final study. One major research question and three others to reflect the age, sex, and physical location variables (four questions altogether) were formulated for EACH of the SIX indices. Thus the following twenty-four research questions were formulated to serve as focal points for the study:

1.1 What are elementary school children in Anambra state curious about?

1.1 Do the curiosities of younger elementary school children differ from those of older elementary school children?

1.2 Do the curiosities of elementary school boys differ from those of elementary school girls?

1.3 Do the curiosities of urban elementary school children differ from those of rural elementary school children?

2.0 What are the major wishes of elementary school children in Anambra state?

2.1 Do the wishes of younger elementary school children differ from those of older elementary school children?

2.2 Do the wishes of elementary school boys differ from those of elementary school girls?

2.3 Do the wishes of urban elementary school children differ from those of rural elementary school children?

3.0 What are the favorite activities of elementary school children in Anambra state?

3.1 Do the favorite activities of younger elementary school children differ from those of older elementary school children?

3.2 Do the favorite activities of elementary school boys differ from those of elementary school girls?

3.3 Do the favorite activities of urban elementary school children differ from those of rural elementary school children?

4.0 What are the major aversions of elementary school children in Anambra state?

4.1 Do the aversions of younger elementary school children differ from those of older elementary school children?

4.2 Do the aversions of elementary school boys differ from those of elementary school girls?

4.3 Do the aversions of urban elementary school children differ from those of rural elementary school children?

5.0 What are the major worries of elementary school children in Anambra state?

5.1 Do the worries of younger elementary school children differ from those of older elementary school children?

5.2 Do the worries of elementary school boys differ from those of elementary school girls?

5.3 Do the worries of urban elementary school children differ from those of rural elementary school children?

6.0 What do elementary school children in Anambra state fear?

6.1 Do the fears of younger elementary school children differ from those of older elementary school children?

6.2 Do the fears of elementary school boys differ from those of elementary school girls?

6.3 Do the fears of urban elementary school children differ from those of rural elementary school children?

The final study generated 8,467 responses which were classified into categories, then tallied into frequencies according to age, sex, and physical location. These were then analyzed on the bases of the research questions and the chi square applied to examine subgroup or variable differences. Data were presented on tables showing frequencies, percentages, and chi square test results.

Analysis of the Data and the Findings

Data were analyzed by discussion, in reference to tables presenting variable frequencies, percentages, and chi square results. The research questions which served as focal points of the study were used as bases for analysis.

It was found that of all the variables, age yielded the largest number of significant differences along the six index measures. Other major findings were as follows:

Curiosities

1.0 Biological phenomena was the area of greatest curiosity for all children. Physical phenomena ranked second, and supernatural/religious matters third.

1.1 Older children were significantly more curious about supernatural/religious matters than younger children.

1.2 There were no significant differences between the curiosities of boys and girls. However, percentages suggest that boys were slightly more curious about supernatural/religious matters, while girls were slightly more curious about human and animal behavior and misfortunes/accidents.

1.3 Urban children were significantly more curious about technology and applied science than rural children, while rural children were significantly more curious about biological phenomena than urban children.

Wishes

2.0 Personal possessions were by far the most popular wishes of all the children, and accounted for more than 40 percent of the total responses for the index. The second most popular wishes were connected with ambitions for vocations and future careers, and the third most frequently expressed wishes were for success in school.

2.1 Significantly more of the younger children expressed wishes for personal possessions than older children, while significantly more of the older children expressed wishes connected with vocations and future careers. "To be good" ranked sixth in popularity and significantly more children from the older age set made this kind of wish.

2.2 Boys expressed significantly more wishes about vocations and future careers than did girls.

2.3 No significant differences were found between the wishes of urban and rural children, but percentages show that more urban

children expressed wishes about others' welfare, for sports and playing equipment than rural children, while more rural children wished "to live long" and expressed more wishes regarding personal and family welfare than urban children.

Favorite Activities

3.0 The favorite activities with the highest frequencies were in the playing, sports category. Ranking second were activities connected with house duties and chores and third, reading/studying.

3.1 Significantly more of the older children responded to reading/studying as a favorite activity.

3.2 Significantly more girls responded to home duties and chores as a favorite activity.

3.3 There were no significant differences between the favorite activities of rural and urban children but the percentages suggest that more urban children responded to eating and social activities while more rural children responded to excursions as a favorite activity.

Aversions

4.0 The largest number of responses in this index were expressions of aversion toward violence and injustice. Aversion to dishonesty was second, while aversion to conflicts with and punishment by adults was third.

4.1 Significantly more of the younger children were averse to conflicts with and punishment by adults. Percentages show that more of the younger children disliked doing chores and being

denied necessities such as food and play time while more of the older children disliked doing poorly in school.

4.2 There were no significant differences between boys' and girls' aversions but the percentages show that more boys disliked doing chores and being denied necessities, while more girls were averse to doing poorly in school.

4.3 No significant differences were found between rural and urban children in their aversions, and percentages indicate just slight differences.

Worries

5.0 The supernatural and the strange constituted the greatest source of worries for all children, followed by worries about punishment. The third greatest source of worries was school work.

5.1 No significant age, sex, or locational differences were found. Percentages, however, show that more of the older children worried about family and social relationships and more of the younger children worried about animals and accidents/disasters.

5.2 More boys worried about dreams, while slightly more girls worried about darkness, accidents/disasters, and loss or accidental damage.

5.3 More rural children expressed economic anxiety and worries about darkness, while more urban children worried about accidents/disasters.

Fears

6.0 The greatest source of fear was animals for all children, followed by the supernatural and the strange; fear of accidents/disasters was the third most frequently expressed.

6.1 Significantly more of the younger children expressed fear of animals, while significantly more of the older children expressed fear of the supernatural and the strange. The percentages show that more of the older children expressed fears about death and dead people and about dreams.

6.2 No significant differences were found between boys' and girls' fears.

6.3 No significant differences were found between the fears of rural and urban children.

Implications of the Findings

Curriculum changes are ordinarily difficult to bring about, but in a centralized educational system such changes would seem to be even more difficult. Such is the system in Anambra and Nigeria. Alice Miel once said that

> It has been the problem of those who would help to bring about curriculum change to persuade people to give up their pile-dwelling on dry-ground. This clinging to what was once a good arrangement long after it has ceased to serve any useful purpose whatever is the commonest form of crystallization. Crystallization has been described as a good beginning turned in upon itself.[1]

The situation in Nigeria is further compounded by the examination-oriented goals of the schools; thus in any effort to suggest improvements for the educational system in Nigeria, these basic difficulties

must be borne in mind. Indeed this investigator believes that nothing short of a fundamental reorganization of the educational system and a national reorientation of thinking about the goals of education would suffice to enable Nigeria to realize its full potential as a country. But this is a long-term goal whereas the implications of this study should provide the practitioner with immediate tools to carry on.

This research was done with the hope that its results would be useful to, among others: the elementary school curriculum planner, the teacher educator, and the classroom teacher. Following is a discussion of the implications of the findings for these educational personnel.

For the Curriculum Planner

1. Many of the findings in this study suggest the need for a broad-based curriculum in which flexibility in the use of time and content enables the teacher to draw from many disciplines. Children's curiosities showed such a broad spread, ranging from issues in plant and animal biology, natural science, to religion and technology. These areas of curiosity should be used as motivators. This implies a curriculum committed to the integrated approach in which the use of various strategies in teaching and learning is possible. Since subject matter cannot be treated in great detail at the elementary school level, the curriculum should provide for the use of actual or vicarious experiences to motivate learning; for example, a trip to an animal farm to observe animals and their ways would probably be more beneficial to the children than many hours spent by the teacher "telling"

children about such animals. This particular point should be stressed to the curriculum planner because so often the classroom teacher's hands are tied by the syllabus and scheme of work put out by the curriculum planner, which specify material "to be covered." In such a situation, pupils and teachers become victims of the examination-oriented system, which dictates that learning goals be geared towards examinations. The case being made here is that the syllabus and other curriculum materials prepared by the curriculum planner make specific provisions to enable the teacher to enrich learning for the children.

2. Many of the children in this study expressed wishes about vocations and future careers. Though it has been said that the vocational interests of elementary school children are unrealistic, such interests can be very useful in motivating learning.[2] In these days of constant change, knowledge of children's vocational interests should be used to lay a foundation of healthy work attitude, and at the same time provide experiences designed to furnish children with basic vocational information.

At present, in Anambra and Nigeria, where industrialization is minimal, the problem of attitude toward work is already causing anxiety. The elementary school seems the logical place to start laying the foundation of a wholesome attitude to work. In this regard, Nigeria can gain from the experiences of countries like the United States; it can borrow, for adaptation to its peculiar needs, ideas and philosophies such as those that underlie career education. Devoting early attention to work as a vital part of the adult role

also implies attention to career and guidance counseling, all of which should be of importance to the curriculum planner.

3. The findings of this study regarding the favorite activities of elementary school pupils in Anambra as compared to those of American children (revealed in the literature) are profoundly important to the curriculum planner. While American children spend the greater part of their out-of-school hours viewing television, the children in this study enjoyed outdoor playing, doing household chores, reading, and studying. Professional educators know that playing, sports, and games provide valuable opportunities for different kinds of skill development. Unfortunately, financial and other constraints sometimes prevent the making of proper provisions for them in the curriculum. Teacher training colleges in Anambra have traditionally had strong physical education/sports programs; thus many elementary teachers already possess the necessary skills when they come to the classroom, but circumstances in many elementary schools do not encourage or challenge them to use the skills they have. And yet in order to harness the innate love of play and games which children have, as shown by the findings of this study, the curriculum planner has to emphasize that area. This emphasis in the planned curriculum will then challenge school authorities at the local level to seek out, to devise, and to use local talent in such things as making equipment, constructing playgrounds, procuring coaches and supervisors. One can think of secondary school students and prospective elementary teachers as possible resource persons in these roles.

If education is conceived as a social instrument to improve living in every facet, it should be actively employed to improve life in the home. This study showed that the children liked participating in household duties and surely their enjoyment of this aspect of growing up and the quality of their participation can be improved by their school experiences. This would bring two advantages: improved knowledge and appreciation of the daily processes of housekeeping, and a confident anticipation of adult roles in the home. Though Home Economics is a listed subject in the Elementary School Syllabus of Anambra state, it is rarely taught for a variety of reasons, including lack of staff, equipment, and low priority. This investigator strongly suspects that low priority more than the other factors has kept this important subject area confined to the books instead of out in the classrooms among eager pupils. Equipment and staff do not have to be just right before a beginning can be made. Local persons, housewives, extension staff from ministries and universities can be used as resource persons, while a great deal of equipment can be devised from inexpensive materials. Bigger retail shops and supermarkets, if tactfully approached, could often be persuaded to donate some useful items such as flour, sugar, and other materials. Models which will probably inspire the children for the rest of their lives could be created, if an occasional group of children could be given the rare privilege of touring the kitchen of a University Home Economics Department.

The literature review revealed that one of the favorite activities of American children is television viewing. Indications

are that within the next twenty years, television viewing will become an important pastime for Nigerian children. Sitting on the shoulder of giants, Nigeria can take advantage of the experiences of countries like the United States, where the effect of television on children is now so pervasive that it has become a source of great anxiety to teachers and parents. As interest in television grows in Nigeria, as facilities are expanded and programs increase, utmost caution is called for. Television programs should be planned to orchestrate with the broad national goals for public entertainment, public enlightenment, and general education. No part of the television program should be allowed to dominate or overshadow other parts unless such parts are recognized as disproportionately important in overall national development. Particular care should be taken, perhaps by means of legislation, to keep the confining tentacles of commercialism out of public television. This is the time for those who appreciate the harm that can be done to start organizing pressure groups in order to educate the public on the dangers inherent in unregulated television programming. The foremost government departments concerned with educational policy, the Ministries of Education, can give leadership in this direction, with support from the Universities, teachers' professional organizations, parent groups, and others. Thus by concerted action, the public can ensure that television, which has great potential for education, is enabled to realize this potential for the mutual benefit of all citizens.

4. Among the concerns expressed by the children in this study was a strong aversion to aggression, violence, and injustice;

to dishonesty; and to conflict with and punishment by adults. It was suggested earlier that the children's expressed aversions toward injustice and violence might be linked to the experiences of Nigeria's recent civil war and the military administration under which the country is governed. Tremendous achievements have been made in the short space of seven years toward "reconstruction, rehabilitation and reconciliation" as the slogan went, but the findings of this study seem to suggest that more should be done to involve schools and children in the healing process. A "healing" unit in Social Studies might include as dispassionate a discussion of the causes and results of the civil war as possible, with emphasis placed heavily on looking forward to the future rather than looking back to the past. Such a unit would be ideally suitable for a global discussion of the implications of such concepts as conflict, war, and peace; importance of cooperation and tolerance; the effects of war on the most vulnerable on both sides. Indeed, such a unit enriched with simulation games, slides, and pictures and presented by imaginative teachers would advance an understanding of the concepts of aggression, violence, and injustice in many ways.

In the light of these findings also, Social Studies units dealing with methods of social regulation, control, and order should devote considerable time to dealing with concepts like dishonesty, punishment, and discipline; and the relative roles of adults and of children within the society.

5. The findings of this study regarding children's worries further strengthen the already mentioned implications and the need for

the use of an integrated approach in elementary school teaching in Anambra. As an example, the biological fact of death is part of science, while the social and emotional results belong to social studies and perhaps to health; further, beliefs about death might be in the area of religion. Obviously, a suitably rich unit on death has to draw from all these areas and only an integrated curriculum can offer such richness. Worries and fears about supernatural happenings should alert curriculum makers to the need for an indepth unit on beliefs about supernaturalism, especially at the upper elementary level. Some such beliefs might be called superstition, but that is all the more reason why they should be brought into the open to be discussed and examined. Besides, since these findings indicate that such beliefs constitute a source of concern to pupils, the implication is that they affect the pupils' learning. This fact alone constitutes sufficient reason for devoting sections of the curriculum to studying them. After all, self-understanding is a basic step to satisfactory learning.

6. This study revealed that the fears of the children studied were dominated, particularly in the case of younger children, by animals. In many ways fear is a useful emotion, since it assists us in self-preservation, but fear becomes harmful when it needlessly restricts us from a full life. It is conceivable that if animals were presented to children as fellow creatures with humans and as occupants of the earth in which all have their important places in the cycle of nature, this might affect their views on animals. From this point of view, even animals like snakes which could be harmful

would be seen as harming humans mostly as an act of self-preservation. The findings of this study suggest that the curriculum planner should incorporate the study of animals in the curriculum in such a way as to highlight the positive contributions which even harmful animals can make to the overall environment in which both humans and lower animals have to coexist. Books, pictures, and other positively oriented material about animals could be used to achieve this objective.

For the Classroom Teacher and Teacher Educator

1. Since teachers tend to teach the way they were taught, it is important for teacher educators to be especially careful in their own classroom practices. The concept of the integrated approach, which is implied in many of the findings of this study, is new to many elementary school teachers in Anambra state. This means that those teachers already in the field as well as those still undergoing training have to be initiated into the concept--the one by in-service workshops, the other by teacher educator classroom practice. University Departments of Education faculty who are not always directly involved in regular elementary teacher training are relatively more involved in giving in-service courses and workshops. Such persons can run demonstration courses concerning the use of the integrated approach in teaching.

The classroom teacher who is to use the integrated approach needs to have, not just a firm grasp of basic subject matter areas as taught in the elementary school, but needs to be well informed,

open minded, and fond of reading materials of various kinds outside textbooks, such as newspapers, magazines, and journals. He should possess the skills necessary for finding information quickly and efficiently and for utilizing the skills in his teaching once the information is obtained. The children's questions which revealed their curiosities suggest that elementary teachers need more than ever to use local resources which are abundant and which the children themselves would be able and willing to bring to school. Such things would include birds' nests and eggs, seeds to plant and observe in the classroom, stories about local beliefs and lores. Teachers in rural areas might require more emphasis, for example, in selecting stories and reading material on experiences that involve technical and applied science areas in order to make up for their pupils' limited experiences with such material. A trip to a local factory or even just a guided tour of a motor mechanics workshop would be beneficial. The teacher can use this knowledge of children's curiosity in selecting reading material. Boys might be more interested in stories or books dealing with the supernatural, while girls might prefer books concerned with human and animal behavior.

2. Since modeling is an important method of learning and teaching, the teacher educator and the elementary teacher should remember that in their roles they are modeling their professions to many more people than they are directly teaching. Based on the children's interest in vocations and future careers, the example or model created by a respected and well-liked teacher would be potent in laying a firm foundation for an adult work role. Reading material,

stories, pictures, and charts can be selected on the bases of the children's vocational and career interests.

Since children, especially younger children, value personal possessions so much, the teacher should realize how tremendously significant little presents can be. Also, when children bring things to school, these are treasures to the children and the teacher should remember this.

The many wishes expressed by these children for school success should alert the teacher to the importance attached by the children to success and recognition in school. He should therefore be particularly sensitive to this fact.

3. The reasons for failing to provide adequately for play and sports activities in elementary schools include lack of money, staff, and time, among others. The strong programs which the Teacher's Colleges offer in physical education and sports suggest that teacher educators realize the basic importance of this area in children's overall development. But the fact that when teachers graduate from training colleges and go into the classroom, they fail to uphold the tradition they learned in colleges, suggests that teacher educators should probably reexamine their own practices. The perennial complaint about the shortage of everything, from equipment to time, is legitimate, but since this shortage is bound to continue for a long time, avenues for finding short-term solutions should be explored. The following questions might assist teacher educators and classroom teachers in reexamining their own practices. During training, do prospective teachers, by the experiences they go through, come to

realize how tremendously important games and sports are in personality development? During this period, do prospective teachers have opportunity to learn how to devise and construct simple, inexpensive materials for use during sports and games? Do they fully participate and enjoy this aspect of their teacher training curriculum so much that they develop a high level of enthusiasm and are they determined to find avenues to imbue their own pupils later with the same enthusiasm?

The aim should be that when the teacher trainee becomes the classroom teacher, he can in spite of the ever-present shortages affect his pupils with his own interest and enthusiasm for games and sports. Such a teacher must be prepared to uphold and defend his practices among colleagues who might be threatened by his success in a situation where many are only too ready to fold their arms and blame the "authorities."

The children's interest in reading and studying, as shown especially by older children, should be utilized by the teacher. Books and stories on various topics, if available within the classroom, would be the best method of encouraging such interest.

Regarding the effect of mass media and television in particular, the teacher educator has a unique opportunity. He can utilize the knowledge of the ill effects of unregulated television programs on children in other lands to show prospective teachers the importance of regulation and care in program production and selection. If this is done, teachers can then come to the classroom already equipped to assist parents and children in using the TV as a tool

for desirable learning. The classroom teacher can also lend his voice to pressure groups working for regulated television programming.

4. Late as it might seem, the findings of this study suggest that the teacher educator can still make valuable contributions towards healing the bruises of the civil war. Since the pupils are very likely to be influenced by the teacher's references to the civil war, it is important that those references are carefully considered. The teacher educator can prepare manuals and handouts for use during in-service seminars and regular teacher-training classroom lectures to help serving and prospective teachers understand the effects of the civil war on themselves and the children they teach. Strategies which teacher educators and classroom teachers could use might include debates, role playing, simulation games, playlets, and the fielding of local speakers. It is remarkable that this recent and important, though unhappy, chapter in Nigeria's national history has not been constructively examined by teachers and children, but the findings of this study make such examination urgently necessary.

5. The findings about the worries of the pupils studied suggest that the classroom teacher and teacher educator have not devoted sufficient time and understanding to discussions of indigenous beliefs and their effects on pupils. Openness rather than a pretense that those beliefs do not exist or that they are not important should be the most valuable approach; only thus can the pupils be helped to align their own beliefs. A synthesizing of indigenous beliefs or a comparison of them with other religious beliefs would help to emphasize similarities as well as contrasts with other forms of belief.

Since religion is important in the lives of the people of Anambra state, trips, excursions, and visits to religious spots--Christian and Traditional alike--would afford the pupils concrete proof that their beliefs and those of their families are important and legitimate aspects of broader existence.

Class discipline should reflect the need for order to maximize learning. It should not be allowed to become a source of worry for children.

6. The excitement and love which animals generate in children is touching to behold, and yet ironically these same creatures constitute a source of fear for many children around the world as the literature and this study reveal. The teacher can build on this basic love of animals by presenting animal life and habits in an exciting form. The rich life of animals can be explored using an integrated approach so that physical form, food, habits, reproduction, uses to man and nature, among other areas, can be examined. Trips to zoos, farms, and animal laboratories would add to the richness of the excitement. Classroom pets would provide experience in observing what and how the animal eats as well as opportunity for close observation of the animal's physical form and its reactions.

In concluding the discussion of the implications of the findings of this study for the elementary school, it can be said that the major value of the findings lies in sensitizing teachers and curriculum planners alike to particular areas of children's interests. Thus the syllabus, textbooks, audio-vidual, and other teaching aids can be prepared with this background. Within the classroom selection

of stories, library books, the giving of homework, and even discipline can be more sensitively performed with a knowledge of children's interests and concerns.

Implications for Further Research

The concept of the curriculum includes the needs of the child as well as expectations of the society from the child. Often the expectations of society appear to loom disproportionately larger than the needs of the child in the curriculum. Across the years this phenomenon has been a source of concern to educators. Pestallozi urged that teaching be geared to the child's developmental pattern; the progressives decried the tedium and dullness imposed by the "sit still" curriculum; today the open classroom, the ungraded classes, self-paced learning provide examples of continued efforts to tackle this concern. By these means, society appears to be saying to the child, "though we want you to learn those things that would enable you to become a contributing member, we would have you learn them in accordance with your natural inclinations and developmental needs."

A study of children's interests and concerns reveals those "centers of interest" around which people concerned with children's education must explore in their search for a balanced curriculum and healthy classroom practice, hence the following:

1. This study was exploratory--examining the broad interests and concerns of elementary school children in one state in Nigeria. Its findings provide a stepping stone to further research in this area, during which particular aspects of interests such as curiosities or wishes could be singled out for specific research.

2. Children's favorite activities identified in the study include reading and recreational activities. Though mention of the television as an interest arouser was rare during the study, children's learning modalities are so central to education that specific research on reading and media interests might yield results that would be profitable for curriculum development. Such research would also provide material for comparison with studies in other cultures.

3. Concerns revealed in this study include worries connected with the supernatural and the strange, punishment, school work, fear of animals, and death and dead people. Specific research on each of these would be profitable in providing information for reducing such concerns in children. Studies of traditional beliefs in relation to Christianity might also be beneficial.

4. Using the categories developed for this study, a differently designed research could be conducted; for example, subjects could be required to rate or rank the categories.

5. A cross-national comparative research such as Nigerian and American children's interests, especially in the area of media interests, might yield results useful for comparative childhood education and utilization of learning modalities.

6. A replication of this study some years from now, perhaps when the impact of television has become more marked, might provide useful comparative data.

7. The results of this study suggest that some of the effects of the Nigerian civil war were still being felt. A study

specifically designed to investigate the effects of this phenomenon on children might be beneficial.

Conclusion

Earlier in this dissertation, the investigator identified four issues which she considered crucial to elementary education in Anambra state, Nigeria. These were: the importance accorded the child's own language in relation to that accorded English, the language of education; the problem of what components constitute the most relevant learning in the elementary school; the conception of teaching and learning as disparate activities rather than as interactive; and the quality of teacher education vis-à-vis the expectations of elementary schooling.

It is exceedingly difficult to decide which one of these factors is the most important. Perhaps such a decision is unnecessary, but since the writer is in teacher education, it is justifiable that her concluding statement to this study should be on teacher education. The view that a carefully organized and carefully delivered teacher education program is a basic necessity before schooling can achieve its goals has probably been expressed before. However, this writer suggests, probably for the first time in Nigeria, that of all national priorities in the field of education, the preparation of the elementary school teacher should be among the top ones. The literature is full of research findings which emphasize the importance of the child's early school years and the necessity for a sound foundation. These alone constitute sufficient reason to

order elementary teacher preparation carefully. But other compelling reasons also exist in the case of Nigeria.

In many communities throughout the world, teachers probably rank next to parents as models for children's behavior. But in a setting, as is the case among some communities in Nigeria where "teacher" is frequently equated to "the person who knows best," the status of the teacher and his potential as a model are even more enhanced. This role becomes critical in situations in which, because parents are not literate, children are forced to focus entirely on teachers to model this educationally vital role. As such, the teacher's influence extends well beyond the usual concept of a teacher's role. Do not teachers who are likely to meet such challenges require much more careful preparation than would ordinarily be the case? It is doubtful if the weight and meaning of this added responsibility have ever been realized, far less provided for in teacher training. The reason for this may not be unconnected with the status of the elementary school.

It is ironic that elementary education, coming at the base of the educational hierarchy, thus supporting all of subsequent education, has traditionally been accorded low status throughout the history of education. Many countries have realized the folly of this practice but in Nigeria the position of the elementary school is still a lowly one. Its teachers require the least education; its equipment, when available, is the most scanty; and its buildings are the shabbiest. Even the famous UPE (Universal Free Primary Education) year, 1976, brought little visible change in these conditions.

And yet this investigator is convinced that for elementary education to discharge its important role of providing terminal education for large numbers of Nigeria's citizens as well as laying a firm foundation for those proceeding to further education, its status has to be raised. In its wake, this will also raise the status of its teachers, who in the long run play a decisive role in determining the quality of elementary education. And from all considerations quality is immensely important in childhood. Walter de la Mare expressed this sentiment very sensitively when he said: "I know well that only the rarest kind of best in anything can be good enough for the young."[3] Teacher educators are among the best qualified to become standard bearers in the movement to raise the status of the elementary school and subsequently that of its teachers. The euphoria of the UPE and the willingness of government to provide funds for elementary education, at this time, make this the right time for such a move.

FOOTNOTES

Footnotes--CHAPTER I

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[21]Cohen, The Learning Child, p. xvii.

[22]Taba, Curriculum Improvement, p. 88.

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[30]Ibid., p. 3.

[31]Ibid., p. 7.

[32]Ibid., p. 86.

Footnotes--CHAPTER II

[1]This figure was given by Mr. E. O. Sanu, the Ambassador of Nigeria to the United States, at a lecture, "Nigeria Today," given at Michigan State University, April 14, 1977.

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[3]Many more children are now likely to be able to go beyond the elementary school level since according to a Federal Government announcement education at almost all levels will be free in Nigeria from 1977/78.

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[6]Uchendu, The Igbos, p. 27.

[7]Ibid., p. 33.

[8]Ibid.

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[10]As already mentioned, the government appears to be at the point of making all education free.

[11]A major examination is taken at the end of each step to allow procedure to the next academic stage. The First School Leaving Certificate examination (FSLC) comes at the end of the elementary system, the West African School Certificate (WASC) at the end of the secondary system, and thereafter an entrance examination for admission to the University. Other examinations exist for professional certificates, such as for teacher certification.

[12]Uchendu, The Igbos, p. 36.

[13]One of the schools in which the author did the pilot study for this dissertation is used for three sessions each day.

[14]"Stream" here should not suggest ability grouping. It simply means a classroom full of children.

[15]Data shown on this table were obtained from the State School Management Board, Enugu, on March 17, 1977.

[16]This is the ultimate goal, but as of now many Grade II teachers never had secondary schooling. Before it was phased out, there was a Grade III certificate, beyond which two years of training led to the Grade II.

[17]Data shown on this table were obtained from the State School Management Board, Enugu, on March 17, 1977.

[18]When the National Curriculum Conference met in 1969, Nigeria was in the throes of a civil war.

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[23]Ibid.

[24]Personal interview with top Ministry of Education official who was in charge of curriculum at the time the syllabus was prepared, Enugu, Ministry of Education, 23 March 1977.

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[32]John Hanson, Imagination and Hallucination in African Education (East Lansing: Institute for International Studies, College of Education in Cooperation with African Studies Center, Michigan State University, 1972), p. 30.

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Footnotes--CHAPTER III

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[160]Rose Zeligs, "Children's Worries," Sociology and Social Research 24 (1939): 22-32.

[161]Pintner and Lev, "Worries of School Children."

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Footnotes--CHAPTER IV

[1]Caution should be exercised in using the concept of high and low socioeconomic level in this context. In Anambra state all schools are state schools and there is no official distinction between one school and another. Any parent has the right to send his child to any school. But in practice, in the urban areas, children from high socioeconomic families tend to be found in certain schools more than in others. However, these schools are by no means exclusive to them.

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[3]The translation procedures described here were developed by the author, based on a synthesis of ideas gathered from reading various translation procedures used by various researchers.

[4]Interviewer training is described later in this chapter.

[5]The Grade II Teachers Colleges, as described in Chapter Two, are the major institutions for training elementary school teachers.

[6]Prior to an interview, the names of selected pupils together with their assigned numbers were written on pieces of paper and put in a box. The box was placed on the teacher's table on the morning of the interview.

[7]English is the commonly written form in the school setting.

[8]There were one or two exceptions to this rule, which are discussed in the chapter on Findings.

[9]This same team of three classified the final study.

[10]Attention is called to the fact that this high percentage is computed from the rate of agreement of all three coders.

[11]Two trained college students and the investigator.

[12]John T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences (New York: Holt, Rinehart & Winston, Inc., 1969), p. 192. See also George Snedecor, Statistical Methods, 5th ed. (Ames, Iowa: Iowa State University Press, 1955), pp. 18-19.

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[15]This is to avoid piling up the error rate. If, for example, each of the tests for the seven Curiosities categories was done at the .01 alpha level, the error for the index would total up, whereas if the alpha level were divided by seven before the tests, the total error rate for all seven tests would be near the original alpha level (i.e., .01).

Footnotes--CHAPTER V

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[5]Bernice Beggs, "Curiosity, The Basis of Knowledge," Kadelpian Review 10 (November 1939): 25-29.

[6]Crippen, "Interests and Concerns," p. 19.

[7]Ibid.

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[14]Arthur T. Jersild and Ruth Tasch, Children's Interests and What They Say to the Schools (New York: Bureau of Publications, Teachers College, Columbia University, 1949).

[15]Paul Witty and David Kopel, "The Dreams and Wishes of Elementary School Children," Journal of Educational Psychology 30 (1939): 199-205.

[16]Zeligs, "Children's Wishes."

[17]Milgram and Riedal, "Developmental Factors."

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[54]It should be noted that the responses in this category make up just about 3 percent of the index total.

Footnotes--Chapter VI

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APPENDICES

APPENDIX A

THE RESEARCH INSTRUMENTS

APPENDIX A

THE RESEARCH INSTRUMENTS

The Questionnaire

I would like to ask you a few questions. Please listen very carefully to my questions, then answer as honestly as you can.

1. People of all ages are curious about life and about things that happen around them. We are curious about things we want to know more about. What are some things you are curious about and would like to know more about?* What three things are you most curious about?**
2. Would you agree that most people you know sometimes wish for things they would like to have or for certain things to happen?* Sometimes you might wish for something special or for something special to happen and sometimes your wishes might involve certain people or places. If you were given three wishes right now that would come true, what would you wish?**
3. Think of some things that you have done or some things that you do sometimes at school, at home or anywhere that you really enjoy.* If you could do some of these things today, which three would you choose to do?**
4. Many times things happen that make us angry or disturbed. Sometimes certain people say or do things that you do not like.

---

*Pause.

**Pause and then record when the child starts to talk.

Other times you may be told to do something you do not like to do and sometimes things happen that disturb you. Think of some things that you really do not like or do not like to see happen.* Tell me three of them.**

5. Would you agree that probably every one worries about, or is afraid that certain things might happen?* Tell me three of the things that you worry about.**
6. Many human beings fear something or some things.* Are there things that make you afraid? Tell me three of them.**

---

*Pause.

**Pause and then record when the child starts to talk.

The Questionnaire: Central Igbo Version

Usoro Ajụjụ

Ọdi ajụjụ ole na ole m chọrọ ịju gi. Biko gee nti nkeoma ka iwe ghota, we zakwa otu inwere ike.

1. Madu nile ma nwata ma okenye nenwe ịgba gharii maka ịhe dị iche iche ha na-ahụ, mọbu nemegasi n'ụwa. Ụfọdụ na-ajụ sị: Gịnị wetara chi ojiji no chi ofufo? Kedu ebe ọkụ si bịa? Gịnị mere ndi ụfọdụ ji eto ogologo ndi ufọdụ adị mkpụmkpụ? Onye kere Chineke? I nenwe ihe ịgba gharịị mọbụ ajụjụ di otua?* Gwam atọ nime ha.**
2. Oge ufọdụ ọna-adi anyi ka ya burụ na ayị nwere ihe ụfọdu anyi nenweghi. Ndi ụfọdu na-acho inwe uwe, mọbụ moto, mọbụ bicycle. Ọna agụ ndi ụfọdụ ịga Lagos mọbụ Ala Bekee, ndi ụfọdụ na-achọ ife n'ugbọ elu mọbụ imuta akwukwọ nke ukwu.* Ọburu na ọdi ka agesi me ka ihe ọbụla ichọrọ me. Gwam ihe atọ ịgachokaricha ka inwe mọbụ ka ha me.**
3. Onye ọbula nenwe ihe na-adi ya mma karicha. Ndi ụfọdu neri nri ọdi ha ka ya agwula agwụ, ndi ụfọdụ igwu egwu na-atokaricha ha, ndi ufọdụ na-agụ akwukwo ha anaghị amakwa ihẹ neme gburugburu ha.* Gwam ihe atọ ọna-atọkarịcha gị ime.**
4. Madu dum ma nwata ma okenye nwere ihe newe ha iwe oge ụfọdụ. Iga ozi newe ụfọdụ iwe, ndi ụfọdụ ọna-adi ha ka ha nwụọ ma ebo

---

*Pause.

**Pause and then record when the child starts to talk.

ha ihe ha na-emeghị, ndi ụfọdụ kpọrọ ikwu okwu asi asi karicha.* Gwam ihe ato newekaricha gi iwe n'ụwaa.**

5. Onye ọbula nenwe ihe neche ya uche m'ọbu na-alọ ya ume mmiri. Ndi ụfọdụ ida akwụkwọ mobu mba onyenkuzi mọbụ nna ha neweta ume ịlọ mmiri. Odi ihe neme ka ume mmiri lọọ gi?* Swam ato nime ha.**

6. Ọtụtụ madu natu ihe di iche iche egwu. Ụfọdụ natu mmọnwu egwu, ụfọdụ pussu, ndi ọzọ na-agbara nkita ọsọ, ndi mmuọ na-atu ndi ọzọ egwu, ụfọdụ n'agbara ndi ori mọbụ ndi n'egbu madu ọsọ.* Gwam ihe ato na atụ gi egwu.**

---

*Pause.

**Pause and then record when the child starts to talk.

Pupil Response Form

Interviewer _____ School _____

Elementary _____ Boy _____ Girl _____ Date _____ Age _____

1. Curiosities
   a. _____
   b. _____
   c. _____

2. Wishes
   a. _____
   b. _____
   c. _____

3. Favorite Activities
   a. _____
   b. _____
   c. _____

4. Aversions
   a. _____
   b. _____
   c. _____

5. Worries
   a. _____
   b. _____
   c. _____

6. Fears
   a. _____
   b. _____
   c. _____

Code Form

Index_____ Coder_____

No. Name No. Name

Pupil No.	a	b	c	Pupil No.	a	b	c
1				16			
2				17			
3				18			
4				19			
5				20			
6				21			
7				22			
8				23			
9				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15				30			

APPENDIX B

THE TABLE OF CATEGORIES

APPENDIX B

THE TABLE OF CATEGORIES: CHILDREN'S INTERESTS AND CONCERNS

Randomly selected examples of responses classified under each category are listed after a brief description.

Index One: Curiosities

1. Technology & Applied Science: Responses classified under this category dealt with such things as why and how cars run, how and why storied buildings don't fall. Further examples are:

> How aeroplanes are built, how doctors cure sickness, how homes are made, how electricity works, how houses are built, how cars move, how radio is built, how aeroplanes fly, how roads are tarred, how glass is made, how sick persons are operated upon, how to pilot a ship, how boats are built, how cars are mended, who makes the clothes we wear, who introduced matches, how gramophone records produce what people say.

2. Biological Phenomena: Responses in this category were concerned with human, plant, and animal life.

> How I come to exist, what causes dwarfs? cause of death, how women are pregnant, why plant roots near the river do not stay inside the ground, how babies stay in the womb, how fish breathe inside water, how plants produce seeds. Why are some people tall, others short? Why trees bear fruit, why women bear children but men don't, how little seeds produce big trees, how women deliver their children. Why do people die? How do birds fly? What makes trees grow? Where does grass come from?

3. Physical Phenomena: Responses classified in this category dealt with such issues as:

> How the sky is formed, how fire was invented, how heaven and earth were made, how rivers and hills came to be, what causes darkness, what causes eclipse of the sun, why rivers never dry up. What causes sand to form? How did the world

> come about? What holds the moon in the sky? Why can everybody see the same moon? What makes the sun shine? How are stars made? Where does the sky begin, will it fall? How did water originate? What is under the earth?

4. Human & Animal Behavior: Responses classified here dealt with interest in why animals, especially human beings, behave the way they do.

> Why do people cry when others die? Why some people think of doing bad things, why some people disobey their parents. Why do some people explore mountains and rivers? Why do animals cry in a different way from people? Why some children go to school, others don't. How do small animals know where they live? How do small babies know where the mother's breast is? Why do some children always cry? Why do some people kill their neighbors? Why do people steal? Why do people and animals have young ones? Why do we read a lot of books? Why do people fight, quarrel, cheat, steal? Why do goats eat grass and men don't?

5. Supernatural/Religious Matters: Responses classified here included questions about God, heaven, and the next world.

> How God created things. Who created God? Why did God create so many people and things? Who made God? How God exists, how God made things. Is God tall or short? Is he a human being or a juju? Why don't dead people come back? Who created Jesus Christ? How did God create the world? Why do we not see God while He sees us? How God loves all the people in the world. What will happen when the world ends? What are ghosts?

6. Misfortunes & Accidents: Responses classified here dealt with such concerns as:

> Why can some people speak, while others can't? What causes blindness? Why are people killed in motor accidents? Why do people fall from trees? Why are some people born lame, others have broken limbs? Why are there so many motor accidents?

7. Miscellaneous: Each item has a miscellaneous category number because in spite of attempts to represent as many categories of interest as possible, it was only realistic to delimit categories.

The investigator decided a category could only be set up when there were at least ten responses classifiable under it.

> Why I am always tired, why man has senses, why there is hunger.

Index Two: Wishes

1. Personal (and family) Material Possessions: Examples of responses classified here included:

> Car, upstairs, plenty of money, a new dress, many new books, bicycle, eyeglasses, many shoes, beautiful clothes, wrist watch, handbag, motorcycle, earrings, head tie, shirts, television set, textbooks, all the story books in the world, dogs, trousers, a big farm, long dresses, pet animals, money, storied buildings, aeroplanes.

2. Success in School: Responses in this category included:

> To pass my examinations, to be intelligent and successful, have books required in school, never to fail in any examination, to study hard, to be the first to answer the teacher's question, study hard in order to pass, to read, wishing to come first in class always, getting all the sums correct, always being able to answer the teacher's questions.

3. Travel (local & overseas): This cateogry included responses on wishing to visit far-away places such as America or London and places in Nigeria, such as Onitsha and Lagos; to be driven around in cars by parents and relatives. Examples were:

> To go to Enugu, to visit the USA, to go to London, to go to Fernando PO, to fly in an airplane, to go to Onitsha, to go to Ibadan, to visit Ghana, to go to Jos, to go overseas, to visit northern Nigeria, to see overseas countries, to visit hometown, Awka, to visit many places.

4. Ambitions for Vocations & Future Career: Responses classified under this dealt with wishing to become:

> Lawyers, doctors, professors or going to University, being a wealthy businessman, etc., to work in an office as a clerk, to become a well-known agriculturalist, to become a

teacher, to marry a beautiful girl, to get a good job, to be well educated, to marry a rich man, to become a doctor and help the sick, to become a rich businessman, to have many children.

5. Personal & Family Welfare: This category included responses on wishes for:

Ability to help parents, younger or older siblings, good health, popularity, etc., to have a good home, to live a healthy life, to be successful and intelligent, to have wisdom, good health and spirit, to have children who will look after me, God to keep parents alive, mother to have twin babies, to be a brilliant person, to be able to help brothers and sisters, to get married and have children, that the brother recovers.

6. Others' (including own community's) Welfare: Responses here included those dealing with wishes for:

Prosperity, peace and friendliness among all the people of the village, town, country and the world, to have peace throughout the world, to help the poor, to help in community work, that there should be no fighting.

7. Food: Wishes classified here included those wishing for:

Special foods and delicacies, to have meals on time, to eat three times daily, drinking sweet wine every day.

8. Sports, Playing & Entertainment: Responses here dealt with wishes for:

Games, sports & sporting equipment, merriment, celebrations, parties, social gatherings and the like, to have a television set, to go to a concert, to be merry always, to hear the sounds of music, to watch birds flying, paint box, to listen to folk stories.

9. Miscellaneous: An example of responses classified under this were:

That God have mercy on His people, for rain to fall at least once every week, sun to shine, to pray always.

10. To Be Good: Under this category were included wishes to be:

> Good, to obey God, parents, and the teacher, to live in peace with neighbors, to go to heaven, to have good manners, to be obedient to parents, to have a forgiving spirit, to have love for my neighbors, to have a good name, to serve God, to be of good behavior, to go to God, to be obedient, truthful and loyal, to live in peace with neighbors, to visit poor people, to be a good person, to be a good Christian.

11. To Live Long: Wishes for healthy long life for parents and members of the extended family.

> To have a long life, to live longer.

12. No Death: Wishes included:

> That no one should die, that death be unknown in the world, to have everlasting life, let there be no death, I wish nobody should die, let not people die.

Index Three: Favorite Activities

1. Home Duties & Chores: Classified here were responses dealing with working around the house, helping parents in their work, running errands, etc.:

> Fetching water, cooking, to help my mother, collecting firewood, helping mother at home, cleaning the house, washing and ironing clothes, working on the farm, tidying the compound, running errands for my parents, helping my parents in their work, sweeping, caring for my small sister, gardening.

2. Playing, Sports & Games: All responses on playing and sports, whether running, jumping soccer, were classified here:

> Playing, running, playing koso game, making masquerades, group dancing, volleyball, boxing, netball game, watching television, playing football, oga game, group games, moonlight games, dancing, skipping, jumping over ropes, tennis, throwing the ball, relay races, throwing the javelin, playing cards, playing draught, riding bicycle, swimming, listening to records.

3. Making Things: Responses which dealt with making things as hobbies or crafts or handwork were put here.

Cleaning handwork material, making baskets, making brooms, knitting, sewing, painting, drawing, collecting stamps, taking photographs, making ropes.

4. Reading & Studying: This category included responses on:

Novels and articles for pleasure or as homework, doing homework, reading, studying my lessons, writing, private studies, doing arithmetic, doing mathematics, homework, doing English lessons, reading stories, reading comics, doing assignments.

5. Eating:

Eating a special food, fruit, sweets, eating sweets, eating rice, eating salad.

6. Excursions, Exploring & Traveling: Responses classified under this included:

Chasing birds and little animals, collecting fruits, taking walks, climbing trees, going on walks in the woods, plucking fruits from fruit trees, shooting the catapult, looking for birds' nests, going in the car, sightseeing, touring some factories.

7. Attending School: The hours spent in school doing a variety of activities constituted some respondents' favorite activities:

Going to school, being in school.

8. Social Activities & Entertainment: Responses classified here included:

Group dancing, singing, plays, going to church, group story telling, group dancing at Christmas time, attending church services, going to the cinema, attending parties.

9. Miscellaneous:

Praying, sleeping, learning to drive.

Index Four: Aversions

1. Aggression/Violence/Injustice: This category included

> Conflict with other children, unfair punishment, aggressive behavior--verbal and physical, rough play, injustice as in being unjustly accused, bullying of younger or weaker children by those who are older or stronger, false accusation, throwing stones, fighting, damaging any of my things, I don't want people to insult me, quarrelling and fighting, to be suspected of doing what I didn't do, using abusive words, if I am beaten for nothing, seniors beating their juniors, insulting my parents, being forced to play when I don't want to, gossiping, I hate to fight, disturbance while in class, court cases.

2. Conflict with and Punishment by Adults: Classified here were all responses dealing with:

> Physical punishment, being scolded, showing disrespect to older people and those in authority, fighting an older person, beating by my mother, being reported to my parents when I fight in school, punishment, parents being angry with me, threats of punishment by my mother, not being praised by my mother when I work hard, quarrelling with my parents.

3. Dishonesty: Responses classified under this dealt with:

> Telling lies, being greedy, stealing, gossiping, cheating, people doing what they are not supposed to do, being lazy at work, when somebody denies a fact.

4. Disasters: These included responses on:

> People dying, to kill a person, illness, accidents, going to the hospital, having an injection, seeing a motor accident, when somebody dies, being wounded while playing, accidents, armed robbery, people bleeding, people knocked down by a car, having an operation.

5. Doing Chores: Many children expressed aversion to "heavy work" and other chores such as:

> Asking me to go on an errand, washing the floor at home, being sent to the market in the evening.

6. Poor School Performance: Responses dealing with doing poorly academically or socially in school:

When I fail an examination, when I have no friends in school, when I can't answer the teacher's questions.

7. Miscellaneous: Examples included aversion to:

Losing a game, forgetfulness, parental strictness, being disturbed, to have hatred for somebody, reckless driving, disobedience, rain everyday, when a boy asks me to be his friend, noise making, playing without stopping.

8. Denial of Necessities: Responses dealing with being denied food and/or playtime or refusing to provide necessities for school were classified here, such as:

When there is no food when I get home from school, when I am not allowed to go out and play, when my parents don't buy me school uniform, not having any books, when I am hungry, not being allowed to do things which others are doing.

9. Conflict Between Parents:

Seeing my parents fighting, when parents quarrel, when my father beats my mother.

Indices Five & Six: Worries and Fears

1. School Work: Responses classified here related to anxiety about the quality of school work, school reports, etc.:

About examinations, failure in exams, being asked to recite multiplication table, how to pass examination, weekly tests, to pass entrance to secondary school, examination at end of year, if I will go to elementary two, when going for an examination, how to tell my father if I fail an examination.

2. Economic Anxiety: Responses in this category dealt with worries as to whether parents can afford to keep them in school to complete their schooling, to provide school and social necessities:

How to get what to feed on, if I don't eat before going to school, if my parents cannot train me, if parents send me to live with another person, if I cannot go to college, if I am not given money to take entrance examination, if parents don't send me to University, if my school fees are not paid, how to be wealthy.

3. Loss/Accidental Damage to Material Things:

> If I broke anything at home, if I lose something valuable, when I damage a valuable thing in the house, breaking a pot belonging to my mother.

4. Punishment: Physical and nonphysical.

> Teacher's punishment, if I don't do my duties, lateness to school, threats of punishment by my father.

5. Family & Social Relationship: Responses classified here included those expressing anxiety as a result of unsatisfactory intrafamily and other social relationships.

> When I fail to carry out instructions from my parents, if I don't do what my mother says, when my parents are in dispute (i.e., arguing), fighting between parents.

6. Animals: Fear of and anxiety caused by animals were classified here. When respondents are explicit about their fears, e.g., fear of dogs that bite, or the tiger because they kill people, this is classified under 7--Disaster. Responses classified here included:

> Snakes, lions, scorpion, cat, dog, cows, monkey, elephant, python, tiger, the barking of a dog, wild pigs, running dog, the cry of an owl, ants.

7. Death & Dead People:

> Death, my brother's death, dead person, to hear that someone I know died, being poisoned, dead body, if my brother should die, corpse, father who was killed during the war.

8. Accidents/Natural Disaster/Violence: Many responses classified under this category were about anxiety from natural phenomena such as thunder, lightning, heavy rain, trees falling on people; others were also afraid of being killed in an accident or by armed thieves:

> Motor accidents, kidnappers, thieves, falling from a tree, high wind which might blow down big trees, killing of somebody, sight of accidents, falling into a deep well, lightning, safety of brothers and sisters, plot to overthrow government, news of war over the radio, noise of thunder, gunshot, fighting, murder, coups.

9. The Supernatural/The Strange: A large number of subjects expressed fear of ghosts, spirits, masquerades. These were classified here:

> Spirits, masquerades, unknown noise from the bush, spirit of a dead person, fear of a lunatic, hearing a terrible cry, ghosts, sudden noise, I fear juju.

10. Illness/Hospital/Doctors: Many respondents expressed fear about illness. Others feared hospitals, doctors, nurses, and having an operation (i.e., surgery).

> When my mother is sick, sickness, seeing a person fainting, when I am sick, injury while playing.

11. Dreams:

> Dead person in my dream.

12. Law Officers and those in uniform: Responses classified under this were those expressing fear of the policemen, soldiers, and even fire officers.

> Policemen with guns, soldiers.

13. Darkness: Responses put into this category included:

> sleeping alone at night, going outside after dark, darkness, staying alone after dark, walking alone at midnight, to be out in the night.

14. Miscellaneous

> If my parents don't buy Christmas dress, older children beating me in school, end of the world, big forests, motor bicycle.

APPENDIX C

THE COMPLETE MATRIX OF VARIABLE FREQUENCIES

Table C.1.--The complete matrix of variable frequencies by physical location, age set, and sex for all categories in all indices.

Index/Categories	URBAN				RURAL			
	Younger		Older		Younger		Older	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Curiosities								
Technology & Applied Science	33	38	31	26	19	17	29	20
Biological Phenomena	45	59	48	49	78	63	58	67
Physical Phenomena	50	35	37	48	37	51	37	41
Human & Animal Behavior	15	23	24	22	16	19	24	29
Supernatural/Religious Matters	34	25	39	31	22	16	35	29
Misfortunes & Accidents	4	4	6	6	3	6	3	3
Miscellaneous	0	1	1	2	0	1	1	6
Total	181	185	186	184	175	173	187	195
Wishes								
Personal Possessions	109	86	60	66	100	96	62	55
Success in School	16	26	15	28	23	17	23	31
Travel	16	25	19	22	12	28	15	10
Ambitions for Vocations & Future Career	28	18	49	31	39	18	43	35
Personal/Family Welfare	4	14	13	9	8	14	15	21
Others' Welfare	1	2	7	4	3	0	3	2
Food	7	10	0	0	6	7	4	3
Sports/Playing & Entertainment	3	1	2	4	1	1	9	1
Miscellaneous	5	1	2	3	1	2	6	5
To Be Good	2	9	19	21	6	5	13	14
To Live Long	3	4	5	6	5	8	7	20
No Death	1	2	2	2	0	0	1	1
Total	195	198	193	196	195	196	192	198
Favorite Activities								
Home Duties & Chores	35	40	20	40	36	47	25	32
Playing, Sports & Games	72	73	84	62	92	85	81	90
Making Things	3	3	5	1	1	4	4	2
Reading/Studying	38	29	39	41	22	23	36	38
Eating	23	14	6	12	77	9	9	7
Excursions, Exploring & Traveling	1	3	1	5	9	6	13	4
Attending School	2	3	3	0	1	0	0	0
Social Activities & Entertainment	9	13	2	16	10	12	8	9
Miscellaneous	8	4	8	6	4	6	5	5
Total	191	182	168	183	182	193	181	187

Table C.1.--Continued.

Index/Curiosities	URBAN				RURAL			
	Younger		Older		Younger		Older	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Aversions								
Aggression/Violence/Injustice	67	60	66	85	67	71	71	65
Conflict/Punishment	28	33	15	15	30	36	22	27
Dishonesty	41	38	46	42	33	34	39	38
Disasters	14	11	15	5	7	16	20	5
Doing Chores	2	4	4	2	8	0	1	1
Poor School Performance	1	3	3	3	1	2	2	3
Miscellaneous	35	29	34	38	36	34	26	40
Denial of Necessities	3	4	3	2	6	2	3	2
Conflict Between Parents	0	0	2	1	0	0	1	0
Total	191	182	188	193	188	195	185	191
Worries								
School Work	24	21	23	39	24	28	21	34
Economic Anxiety	9	5	5	6	13	6	9	11
Loss/Accidental Damage to Material Things	13	8	9	16	6	13	11	13
Punishment	35	39	32	23	19	31	23	34
Family & Social Relationships	4	0	8	3	6	4	1	9
Animals	2	2	0	3	2	3	3	0
Death & Dead People	16	15	21	23	25	19	30	20
Accidents/Disaster/Violence	3	10	2	1	2	1	3	1
The Supernatural/The Strange	42	41	46	38	42	31	41	31
Illness/Hospital/Doctors	11	15	9	11	14	14	14	13
Dreams	2	4	5	1	2	1	0	0
Law Enforcement Officers	1	1	1	0	0	0	0	1
Darkness	0	1	1	0	2	3	0	0
Miscellaneous	14	12	17	16	11	14	22	17
Total	176	174	179	180	168	168	178	184
Fears								
School Work	0	1	0	0	0	0	0	0
Economic Anxiety	0	0	0	0	0	0	0	0
Loss/Accidental Damage to Material Things	0	0	0	0	0	0	0	0
Punishment	0	1	4	2	0	2	0	4
Family & Social Relationships	0	1	1	1	0	0	0	0
Animals	77	72	51	41	74	75	58	47
Death & Dead People	17	13	14	23	12	15	21	26
Accidents/Disaster/Violence	37	36	34	36	43	46	31	34
The Supernatural/The Strange	51	50	64	62	48	46	61	66
Illness/Hospital/Doctors	2	2	5	1	0	1	1	0
Dreams	1	2	2	4	1	0	1	5
Law Enforcement Officers	1	0	0	1	1	1	1	2
Darkness	7	9	5	4	0	7	6	5
Miscellaneous	3	6	13	5	8	0	10	5
Total	196	193	193	180	193	193	190	194

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