Project Focus on Optimum Development of Children (F.O.O.D.) was initiated in June, 1971, as a demonstration project with child health and development as a key purpose for pupils based in two poverty area schools in Durham, North Carolina; the project this year has served 1300 children. It has provided consultation to teachers and liaison work with parents and community agencies. The six objectives of the project are as follows: (1) to demonstrate and document the development of an interdisciplinary team located in a public school setting whose efforts are directed toward the objectives of this project; (2) to demonstrate and document methods to increase parent participation in the school's nutritional, educational, and child development program; (3) to demonstrate and document methods to increase positive changes in children in the area of nutritional intake and attitudes, learning, and self-concept; (4) to demonstrate and document increased utilization of existing community resources in a public school setting; (5) to train professionals and paraprofessionals to create an awareness of the impact of nutrition, mental and physical health, and the learning processes in the public school setting; and, (6) to demonstrate and document improvements in the awareness of teachers toward the unique educational, emotional, and nutritional needs of these children. (Author/JM)
Project F.O.O.D. - Focus on Optimal Development of Children

A Superintendent's View

Lew W. Hannen, Superintendent
Durham City Schools
Durham, North Carolina

Project F.O.O.D. was initiated in June, 1971, as a demonstration project with child health and development as a key purpose for pupils based in two poverty area schools in Durham, North Carolina. This year it has served 1300 pupils by identifying and treating problems in the areas of health, nutrition, mental health and learning disabilities. It has provided consultation to teachers and liaison work with parents and community agencies.

Since the project is part of the Durham City School system, I would like to give you some background about our city, our schools and the particular setting in which the project is based. Durham is a city of 95,400 people, about 38 per cent black and 62 per cent white, located in the Piedmont section of North Carolina. Two school systems serve the city and county; each one has about 12 to 13,000 students. Commerce, tobacco, and farming are the chief business interests of the area; its people have been industrious, hard working pioneer stock. Two universities and a technical institute serve the city and the larger community beyond. Due to
rapid growth of industry, of the Research Triangle Park and the increased mobility of its people, Durham is a part of the Raleigh, Chapel Hill, Durham area.

This area is a complex of transportation, schools, universities, shopping centers, industrial research unlike any other area of the state or sister states. The area is one of great contrasts. One may see a horsedrawn wagon along the airport road, seemingly under the wingtip of a mighty 747 jet. The largest black owned business in the world has its home office near farms which were worked by slave labor about 100 years ago. Great wealth and poverty as well as great contrasts between the old and the new exist side by side.

In one part of our city existed an area, indicated by a state study, as having an unusual index of human problems. Children and families had suffered from economic depression, no jobs, lack of training, poor health, poor nutrition, disease, discouragement, loss of self esteem, failure, and death of "soul".

Children from this area generally attended two schools, Pearson and Burton, grades 1 through 6. Our schools had attempted to meet the needs of these children in many ways. The principals were experienced men; teachers were dedicated to their jobs. Food services provided at least one nutritious, attractive meal a day. The County Department of Health sent nurses into the school and some agencies provided some social
services to families. But in school, children appeared listless, inattentive, restless and they were absent or tardy frequently. Our schools were not equipped to make a significant difference in their total development.

Through the initiative of the Durham City Director of Food Services, a proposal named F.O.O.D., Focus on Optimal Development, was developed to assist these children and their parents better their condition and develop hope for a healthier and better life. The proposal was funded for a year with indication that the grant may extend for a three year period.

The six objectives of the project are as follows:

1) To demonstrate and document the development of an interdisciplinary team located in a public school setting whose efforts are directed toward the objectives of this project.

2) To demonstrate and document methods to increase parent participation in the school's nutritional, educational, and child development program.

3) To demonstrate and document positive changes in children in the area of nutritional intake and attitudes, learning and self-concept.

4) To demonstrate and document increased utilization of existing community resources in a public school setting.

5) To train professional and paraprofessionals to create an awareness of the impact of nutrition, mental and physical health and the learning process in the public school setting.

6) To demonstrate and document improvements in the awareness of teachers toward the unique educational, emotional, and nutritional needs of these children.
The project is underway with a Director, Mrs. Annabelle Selph; a coordinator, Mrs. Ruth Baker, a staff of 4 professionals, 6 aides, some office help, some consultant services. It has an Advisory Council, Chaired by a black minister, Rev. Melcher, who also serves families in that community.

Through the project certain accomplishments have already been made. Here are some examples:

1. -54 children per week are getting health and thorough physical examinations.
2. -32 children per week are getting dental care and treatment.
3. -Parents have gone for treatment with their children.
4. -1111 children have received health assessments by contract agreement.
5. -For follow-up, 171 children have had XG's and chest X-rays, 91 children have visual difficulties, 42 children have been helped with overweight, 81 children were determined as positive sickles.
6. -Over 404 children have had dental treatment.
7. -50 children have been given special help for learning disabilities.
8. -317,800 meals (lunches and breakfasts) have been served to children this year.
9. -School attendance in each school has increased 4% over last year.
10. - Faculties of the two schools are working in three committees: nutrition, physical health, and mental health. Each faculty member is becoming more expert in one of these areas.

11. - Over 26 community or state agencies are providing some services to the project through contract or volunteer work. About 50 specialists are involved.

12. - Interns, graduate students, undergraduate students in training programs for nutrition, health and counseling, (a total of 21 from three universities) have participated in the project.

13. - Local and state professional and citizen groups have requested eight informative programs about the project.

At this point, we can look back over the first year of the project and feel satisfaction in the expansion of services for children, the initiation of other services to the child and his family, and the improvement of the educational program in the schools these children attend.

For next year we are anticipating additional contributions. The F.O.O.D. staff has met with junior high school staffs to enlist their interest and support as the F.O.O.D. children progress upwards. The Project staff have initiated procedures to work with programs such as Title I, etc., who send children into the first grade of the project schools. So the
project is extending itself downwards and upwards educationally. It also hopes to expand its program, depending on budget, to some companion elementary schools. A request for approximately $167,000 has been filed for the project continuation next year.

As a superintendent of the school system responsible for the project, I agree with one of our project principals, "It has done miracles for our children." In many ways, it has done miracles for our staff. The project has been distinguished for the degree it has sought and obtained cooperation of many for the sake of the child. The project staff has impressed others with their spirit of dedication and their joy in their work. I am proud to be associated with them and their good work.
FOCUS ON OPTIMAL DEVELOPMENT: THE TOTAL CHILD

Talk by Mrs. Annabelle D. Selph
Director of School Food Services
Durham City Schools and
Project Director of Project F.C.C.D.
at the American School Food Service Association Convention
Seattle, Washington, August 3, 1972

INTRODUCTION

We are glad to be a part of your program, Mrs. Woodson, and I hope what we have to share will be of some help to you in attendance. I have been inspired by several people every time I have attended a School Food Service Convention. That has been every year since 1952. I will have to give credit to our Superintendent. (He was unable to be here because of an emergency). I have had the pleasure of working with him in one way or another since 1957. He not only permits, but encourages all members of his staff to attend professional meetings.

I will start by giving you some background information that led to the funding of Project F.C.C.D. which is one of eight demonstration projects in Health and Nutrition Services and is the only project under the supervision of School Food Services. The National Nutrition Survey that began in 1968 in ten states was the basis for the White House Conference on Food, Nutrition and Health in 1969. An early report of this survey of 12,000 people in four states showed that:

1) 5% had symptoms associated with malnutrition
2) 17% showed low protein levels
3) 16 cases of rickets were uncovered
4) A large number of people had deficiencies in vitamins A and C and Iodine.

We carried out our own nutrition survey in North Carolina, since we were not one of the selected ten states in the National Survey. The findings in the North Carolina survey repeated the pattern of the National Survey. The same deficiencies were prevalent in both. Project F.C.C.D. is a result of the White House Conference on Food, Nutrition and Health whose recommendations included that a comprehensive and sequential program of nutrition education be included as an integral part of the curriculum of every school in the United States and its territories.

* This demonstration project is being performed pursuant to a grant with the U. S. Office of Education under P.L. 89-10 Title IV. I am expressing my professional judgment. My points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.
THE EVENTS THAT PRECEDED THE GRANT

1. On October 21, 1970, we received a copy of the guidelines from Mr. Ralph Luten for a demonstration project in school health and nutrition services for children from low-income families. Evidently, he was one of a few, if not the only supervisor, who sent these guidelines to School Food Service personnel. I want to thank Mr. Luten for helping us out in Mr. Harnen's absence and to personally thank him for his leadership in School Food Service in North Carolina.

2. A ten-page preliminary proposal was drafted and mailed in November, 1970.

3. In January, 1971, our superintendent was notified that we had been selected to submit a final proposal.

4. I was asked to attend a workshop along with representatives from twelve other school districts in Washington, on writing a final education proposal.

5. In February, 1971, two United States Office of Education staff members came to Durham for an on-site visit of the two schools. The representatives were aware of our having a unit on table manners that was implemented in 1961 in all Durham Elementary schools, and our having a road map of goals for aiding the teachers in teaching Nutrition Education in Grades K-12 that were adopted at a principals' meeting in February, 1965.

HOW THE MULTIDISCIPLINARY TEAM HAS BEEN DEVELOPED

The global objection is to demonstrate and document the development of an interdisciplinary team in a school setting.

There have been three steps in the development of this team:

At first, each individual concerned himself with what he perceived to be his own area of responsibility. Thus, the nutrition worker "did Nutrition", the mental health worker did "Mental Health" et cetera. At this point, each staff member felt his "own domain" if someone else was dealing in his "own domain".

Secondly, each team member through team meetings and case conferences began to understand and appreciate the work done by his co-workers, and began to assist in other fields.

Finally, the team actually began to function as a unit, with maximum cooperation and communication. It is now able to put forth a concerned, united effort. While every worker has as his focus his particular area of expertise, he is knowledgeable about the other areas and is able to be of assistance wherever needed.

Currently the Multidisciplinary Team of Project P.S.C.D. consists of, in addition to (myself), Mr. Baker, the Coordinator; an Assistant Coordinator, who is also a learning disabilities consultant; a Health Educator; a Nutrition Educator; and six Para-professional Aides. The Aides are parents of children in the project schools.

I. HEALTH EDUCATION

The Project Team is contributing to the In-Service Training of Aides, Teachers, and the professional staff through staff meetings, a Joint Advisory Council, child case conferences, and counseling with individual teachers. These methods provide an input of materials and ideas for classroom instruction to enable teachers to stimulate the motivation of children to learn and to emphasize principles of maintaining and increasing health. According to Dr. S. M. Glueckovich, in a talk presented at the National Nutrition Education Conference in Washington in November, 1971, "health is viewed as a quality of life in all of its dimensions physical, mental, and social." We are viewing health in the same manner in this project.

A. I'm going to skip over how the nutritionist is functioning. Mr. Baker, who preceded me on the program today, gave you a detailed report on this component.

B. HEALTH EDUCATOR

The task of health education is enormous. In spite of the magnitude of this job, we feel very pleased with our achievements. I shall just mention some of the major activities being implemented.

In its broadest sense, the Health Educator is responsible for coordinating all of the health services in the schools. To give you an idea of some of the health problems, we have shared with you in the handout a copy of the physical assessment of nine children. Six of the nine had positive findings.

SOME OF THE SERVICES THE HEALTH EDUCATOR HAS PERFORMED IN THE SCHOOLS ARE:

a. Providing supplementary materials and resource persons to enrich the school health program.

b. Holding conferences with teachers, relative to health education in the curriculum.

c. Furnishing current curriculum materials to teachers.
d. Demonstrating to classes "the importance of good health habits".

e. Conducting classes in sex education.

f. Arranging and providing consultative services to the schools from the University of North Carolina School of Dentistry.

g. Following-up reports of children having health problems.

h. Furnishing a "sick room".

i. Placing a first-aid kit in each classroom.

j. Planning and scheduling dental screening and physical assessment for 2,903 children.

k. Organizing and scheduling follow-up physical and dental appointments.

l. Supervising paraprofessionals in planning and implementing a program on "how to prevent health problems".

C. MENTAL HEALTH CONSULTANT

The need for good nutrition cannot be overemphasized, but as you well know, an adequate diet does not solve all of the problems which face deprived families. Therefore, we feel that the mental health component of our project plays a significant role. The program is developmental and is divided into three phases.

PHASE I included individual and group conferences and in-service training for teachers and teacher aides in order to:

a. Identify children with learning and/or behavior problems.

b. To set up techniques for diagnosing the problem.

c. To implement remediation.

Some of the referred cases were quite severe and required further consultations and evaluations with social workers, psychologists and psychiatrists. Parents and teachers were also involved. By no means do I intend to imply that every parent whose child was referred for further evaluation followed through. Unfortunately, there were several children whose parents feel "a belt is the cure for all ills". The mental health consultant and our paraprofessionals have worked diligently, but have been unsuccessful in these cases. It is difficult to change behavior.

Our plans are to become more involved in Phases II and III during this next school year.
PHASE II will involve more intensive in-service training for teachers and parents in:

a. Analyzing
b. Identifying
c. Diagnosing

PHASE III is that of prevention.

Our plans are to hold more in-depth conferences and workshops for parents, teachers and teacher aides on teaching strategies to employ in working with young children.

LEARNING DISABILITIES

More than fifty children were referred to our consultant in learning disabilities. According to his report, there was only a very small number of those referred who were "true" cases of learning disability. The overwhelming majority were in dual language, just behind their peers. These children simply had "learning problems".

Having determined that the problem was, the consultant recognized the plight of the teacher - she simply did not know how to plan and implement a "remediation" program for these youngsters. The consultant prescribed a program for each child tested.

A second approach used was that of setting up a resource corner in the library. The school librarian was delighted to become involved. She secured the audiovisual aids from a local school supply out demonstration books. A small number of black program cards were given to us and some were borrowed from the Special Education Instruction Materials Center, located in Raleigh, North Carolina, our State Capitol. Several children were selected to take part in this arrangement and special programs were developed for them. Emphasis has been placed on the teacher's role in developing self image.

PARAPROFESSIONALS

The most significant contributors to our program have been the paraprofessionals. Their knowledge of the people, the school community and their ability to relate to the children as well as the parents has been invaluable. In addition to being the major liaison agents between the project staff, the school and the child's family, the aides have functioned beautifully in the following activities:

1. They devised their own schedule as it related to the classroom, and determined the grade level in which they felt most comfortable. It might add here that this arrangement has been most effective. It has enabled each aide to establish rapport with the teacher and child. They have been able to relate pertinent information about the children to the teacher.
are active participants in child case conferences in that not only are they asked to share information about a child, but they also share information about other relatives in the home, such as aunts, uncles, grandparents, as the case may be. Families share far more information with the aides than with the professionals.

3. They have assisted families in (1) understanding just what Project P.F.C.D. is in a language which the families understand (2) making appointments at Lincoln or Duke Clinics (3) transporting families to these clinics as well as to meetings of our project.

Even though the educational range of the aides is grade eight through twelve, we have been most pleased with their growth, flexibility, and dedication to the project.

Some of them are applying some of the things they are learning about good nutrition and health. One aide has learned that obesity affects not only the things one can do well, but health and longevity. Consequently, she has been dictating and is encouraging the other aides to join her. All six are obese. They also do:

4. Remedial tutoring.
5. Relieving kindergarten teachers at breakfast time.
6. Assisting the health and nutrition educators with demonstrations.

Our plans are to use suggestions from the aides as to what areas they feel the most need for training and thereby conduct more intensive in-service education programs.

We also plan for them to observe and work with the paraprofessionals at the Learning Institute of North Carolina's Child Development Center in Greensboro, North Carolina. This Center has developed its parents to the extent that they are conducting workshops in Florida, Georgia, South Carolina and Tennessee. They will be involved in the North Carolina Kindergarten Association workshop alongside such internationally known personalities as Burton White of Harvard, Ella Jenkins of Chicago, Illinois, and Mary Moffitt of Queens College in New York. We feel this will do much for them to see and interact with people like themselves.

II. PARLANT INVOLVEMENT

The parent involvement component has been difficult to obtain. However, we feel that involvement is essential if this project is to lead to cast off lifelong attitudes about school and lifelong practices concerning other aspects of family life.
We are trying to use innovative creative techniques to achieve a breakthrough with these families. We have a series of stages that we refer to as Level 1, 2, and 3.

**Level 1** has been the assessment stage. Here we have sent the para-professionals into all homes to get consent forms for children to receive physical assessments. At the same time the aides have tried to introduce the program, establish rapport, find out about family interest, habits, attitudes, and special problems of the families. Some of the information has been obtained by small group meetings in the homes and at the schools. Every time an aide makes a home visit a report is made of the findings, etc. The form used is in your hand-out.

**Level 2** involves establishing goals for each family after diagnosing the family's life style and problems. We are helping the parents to meet the needs of their children by utilizing community resources. Parents are encouraged by the school, teachers and project staff.

**Level 3** the parents are ready to participate in home demonstrations of food, supervised marketing, health education, interest clubs, improvement of child care techniques, etc. We are involving the parents with the operation and evaluation of the program. We plan to increase specific responsibilities as they are ready to assume more. Only a few parents are ready for the third stage.

**III. IN-SERVICE TRAINING IS CRUCIAL**

1. The staff tries to furnish consultants in each area of the project.
   - Nutrition
   - Health
   - Mental Health
   - Learning Disabilities

2. Regular weekly meetings with the professionals and paraprofessionals.

3. Attend workshops with teachers in the project schools.

4. Attend meetings in each area of concern.

**C. AIDS**

1. Each staff member works with the aides on a regular basis.

2. The aides attend workshops for other school aides.

3. Attend workshops at Social Services, and the Health Department.

**IV. JOINT ADVISORY COUNCIL**

This council meets monthly. It consists of five service providers (agencies already existing in the community), five professional people and ten parents. Their duties include such things as:
1. To assist the schools in identifying the health and educational needs of economically disadvantaged children.

2. To assist in developing a program to meet the most pressing identified needs of educationally deprived children.

3. To communicate and distribute information about the school program to target area and communities.

4. To act as a sounding and listening board through which neighborhood residents can bring their concerns and problems to the attention of the school administrators and propose changes in the school program.

5. To assist in providing parents with an opportunity to organize their involvement and interests in order to develop talents and hidden potential of parents.

6. To establish better communication and relationships between parents and school personnel.

7. To find ways of involving parents as planners of policies and curriculum.

PROFESSIONAL COMMITTEE

In addition to the Council there is a Professional Committee that is composed of professionals in the area of Education, Physical and Mental Health, Nutrition and Learning Disabilities. The staff members report on what they are doing and give the results or findings. These professionals offer suggestions.

This Committee meets monthly with the staff. We have been overwhelmed at the amount of interest and the willingness of people to give their time for this project.

PARENT COMMITTEE

The other committee is a Parent Committee. Several committees are beginning to emerge. The groups are structured by interest areas such as knitting, crocheting, menu planning, nutrition, food demonstrations, etc. It has taken a year to lay the foundation for these committees.

V. COORDINATION OF ORGANIZATION AND AGENCIES

The project has made parents more aware of agencies to reach target children. Agency personnel have spent more time at these schools and they are more knowledgeable of the needs and problems of disadvantaged children.
Eighteen organizations and agencies are working with the project. Several agencies have three or four departments involved, such as:

University of North Carolina

1. Special Education
2. Institute of Nutrition
3. School of Public Health
   a. Health Section
   b. Nutrition Section
4. School of Social Work

Duke University

1. Medical School
   a. Developmental Clinic
   b. Dietetic Department
   c. Child Guidance Clinic

2. Education Department

Some other organizations and agencies are:

Durham Community Mental Health Center, Junior Women's Club, State Board of Health, County Health Department, North Carolina University, County Department of Social Services, Child School (for emotionally disturbed children), Lincoln Community Health Center, Dairy Council, State Department of Public Instruction, Four Divisions, School Food Services, Home Economics, Special Education and Health Education, Operation Breakthrough, and Women In-Action. Women In-Action is a tax-exempt organization that was formed in Durham in September, 1969, in which women from all segments of the Durham population organized to work on community problems. The purpose of the organization is to encourage and support all just efforts to prevent violence and to remedy and/or work to remove the causes which breed it. These leaders have helped start other such organizations.

VI EVALUATION

In an effort to find out exactly how parents and students alike felt about Project F.O.O.D. with the assistance of our professional staff and aides, we devised and distributed questionnaires to all the parents. Eighty-two percent of the parents responded to the questionnaire.

Nine-hundred and nineteen pupils in grades 2-6 were asked three questions to be answered "Yes", "Uncertain", or "No".

---
1. Do you eat more food this year than you did last year?

Results:

Yes 51, or 497
Uncertain 36, or 329
No 10, or 92

2. Do you get along better with your classmates and teachers this year than you did last year?

Results:

Yes 49, or 452
Uncertain 36, or 309
No 17, or 158

3. Are you generally happier this year than you were last year?

Results:

Yes 56, or 510
Uncertain 32, or 292
No 12, or 117

VII SUMMARY

By way of summary, I would like to give you some anticipated products as output from Project F.O.C.D. Please note that I said anticipated. Money to develop materials is difficult to get in grants like this one. This program has really kept all of us very busy, but we have intentions of doing the following:

1. A pamphlet (100 pages or less) on how an interdisciplinary team functions in a school setting to bring about changes in health and learning that affect the lives of children, parents, and others in the community.

2. A child study guide, including information on mental health, nutritional needs and learning disabilities that will help a counselor, teacher, and other personnel in the Junior High Schools to follow through with an elementary child.

3. A pamphlet on in-service training for school staff members (teachers, aides, others) relative to health and learning objectives.

4. A booklet on how school-based food service personnel can make significant changes in the health of low-income parents and their children.

5. A pamphlet on how the Health Team can work with low-income parents to bring about a positive change in the lives of their children.
6. Development of a booklet regarding good mental health practices with low-income children for teachers, parents and other helpful personnel.

7. A series of pamphlets containing specific remedial suggestions for teachers regarding the ten sub-tests on the Illinois Test of Psycho-linguistic Abilities.

8. A guide for informal diagnosis of learning problems, so that the teacher may be able to discover and correct some of the more simple difficulties herself.

9. An innovative program of the Audio Flashcard Reader Cards to help the teacher develop various language programs using blank cards (similar to Language Master Cards). Project P.E.C.O.D. has used Language Masters in each of the two schools.

10. A guide to selecting, training and supervising of school paraprofessionals working with low-income parents.

11. Individualized instructional materials of selective topics relative to the project program so that individual pupils may work on their own. (Examples: Learning Laps, Games, etc.)

12. Suggestions for working with low-income parents related to school learning and child behavior. We have a social worker that is working on In-Service Training with our paraprofessional aides this summer.

13. Audio Visual aids for use of other school and community groups to sensitive them to needs and approaches identified by the project. We have about 300 colored slides that have been made thus far.

14. Packaged presentations for use with local, state, regional, and professional groups to influence them in meeting health, nutritional, and learning needs of children. Our staff has given numerous programs already to state, local, and regional professional and business groups.

15. A school system plan for spread (horizontally and vertically) through senior high schools. We have met with the principals of all our junior high schools in Burbank about information that will be helpful about the 6th grade children going into the 7th grades. The project staff will attend Faculty Meetings in other schools as consultants on health problems with children.

16. A design for longitudinal follow-up of project children for a period of six years to estimate the changes related to the P.E.C.O.D. Project input, and to report findings. A form has been prepared by the project staff that is a part of each child’s cumulative folder. All the information about each child is put on this form. However the child reports for school next year the information becomes part of his record. We have attached a copy of this form to your hand-out.

According to Merrill S. Reed “Learning is recognized as progressing in stages, laying foundation upon foundation. By not responding to early stimulation, the child gradually becomes unable to benefit from “normal” experiences at a later period. He fails to learn, not because
the genetic potential or neurological structures are absent, but because he lacks the experimental foundation. Improved nutrition alone will not correct this deficit. Neither will improved educational opportunities by themselves. Both must be provided in a coordinated program to "develop the child's potential". Or... would one... read... next.

We would like to have any of you come to visit this project in Durham, North Carolina, at your convenience. If it isn't convenient to visit us, we have a form with our address for you to send for any material or information you may want.
LIST OF REFERENCE


Lewin's Attitudinal Test, a preliminary report on a study directed by Kurt Lewin, Institute of Child Behavior and Development, University of Iowa, 1968.


The Nutrition Component of
Project F.O.O.D.
By
Ruth P. Baker

I. INTRODUCTION:

We are very pleased to be on the program today and I am especially glad that it fell my lot to tell you about the nutrition component in Project F.O.O.D. first, because I am very "sold" on nutrition. I still believe in drinking milk and eating green vegetables. The second reason I'm glad to tell you about the nutrition component is because I think you are interested in nutrition, otherwise you wouldn't be working in School Food Service.

II. WHY MEALS ARE SO IMPORTANT:

Our children in Burton and Pearson Schools, as Mr. Hannen and Mrs. Selph have told you are "special" children because they have so many special problems. It would be pointless and useless to try to teach them "what" to eat when many of them have no choice because they don't have anything to eat sometimes. Therefore, the first step is to feed them. They are getting breakfast and lunch free. Most of them qualify for free lunches and the project pays for 10¢ on the breakfast. It really is wonderful to have every child eating with no tickets or money to handle. The atmosphere is much better. Children in low income neighborhoods, like ours, need the security of knowing that they will be fed. They come from homes where there are in most cases only one parent, the mother and she usually has a job to go to early in the morning.
She may not take the time to fix breakfast for them, they are used to eating leftovers from the night before. Where there are two parents and numerous children it may be more like a battle ground. One principal said "They come from a battle at home and breakfast gives them a chance to calm down before going to class".

III

What is served for breakfast?

There are so many children there for breakfast that the cafeteria cannot accommodate them all in the short time allotted for breakfast, so half of the children eat in the cafeteria and get a hot breakfast and the other half eat in the classroom and have a cold breakfast. This is rotated so that everyone has his turn for hot breakfast. The hot breakfast served consists of usually fruit, a protein food and hot rolls and milk. The cold breakfast is fortified with a pint of milk and is equal to: 2 strips of bacon, 1 egg, 4 ounces of orange juice, 1 teaspoon butter and 1 piece of toast. It is a sweet bun and comes in chocolate with cream filling or plain yellow cake with vanilla or strawberry filling. Some of the kindergarten children and first grade children prefer the bun as it is easy to handle. There were almost no tardies in the two schools and attendance is better. We think their self-concept has improved, because they know food is there for them and everybody is treated alike, in that all get a free meal. Some mothers fix breakfast at home and say the children want to go to school and eat, so I think they enjoy breakfast. Long waiting lines to eat is conducive to fights and misbehavior, their waiting span is short and the boiling point low. We think it is better to serve meals quickly for low income children.
The pediatrician who gave the physical assessments was surprised that the hemoglobin count was as high as it is. We think the type A breakfast and lunches, and the summer feeding program at the recreation centers are responsible. Home made bread containing bulgur, or rolled oats, or rolled wheat are used all of the time and the protein foods are served at every meal. Raisins and prunes are used as often as possible—all of these foods are high in iron content. Only two or three students in both schools were considered seriously anemic. The North Carolina Survey on nutrition made in 1971 showed 7.5 of the families surveyed to have diets inadequate in iron. We are also proud that only two pupils in both schools preferred to bring their lunch from home.

One of our objectives is "To demonstrate and document positive changes in the areas of nutritional intake and attitudes, learning and self-concept."

It has been pointed out that we are using an integrated approach in teaching nutrition to children and parents. We find that children who have problems, do not usually have one problem, they have multiple problems. For example, some of the obese children were found to have emotional problems. They over eat because they are worried and the fatter they get, the worse their self-concept becomes. To correct this requires cooperation between the mental health educator, the nutritionist, the teacher, the cafeteria manager and the parents. The teacher and the cafeteria manager can discourage large helpings of fattening foods, swapping foods and seconds on bread, etc.
The children are weighed three times a year and their height is taken. Their growth progress is charted on the Stewart Charts. Thirteen Dietetic Interns from Duke University Medical School spent a week each working with the nutritionist. They assisted the aides in gridding the charts and converting the information to cards to be computerized. The nutritionist from the North Carolina State Board of Health was a resource person. We hope to get some interesting hard data in the results.

At the beginning of the year the teachers were given three curriculum guides for teaching nutrition. Concepts for each grade level and activities to provide the necessary learning experiences to understand these concepts. Next fall we hope they can select the most effective ways to teach nutrition and we can develop our own curriculum guides. Teacher training does not require any nutrition, but there was a teacher's nutrition committee that met twice a month with the nutritionist.

LEWIN'S ATTITUDINAL SURVEY:

In October of 1971 a test called Lewin's Attitudinal Survey was given all fourth, fifth and sixth grades. The Nutrition Educator was assisted by the dietetic interns from Duke University Medical School. Some of you may be familiar with this test, but for those who are not, this test contains questions like these:
List foods eaten every day by your family.
List foods you are praised for eating.
List foods you are scolded for eating.
Who would you scold?

— and there is a tricky question like this: Jim and Bob spent the weekend with a friend. Bob said, "I had a great time because the food was just swell. Each meal was wonderful!" Jim said, "Oh I had awful meals. The food was terrible." Name the foods you think Bob was served and name the foods served.
at the house Jim visited. The results of the test showed:
1. The mother has the determining influence on the food habits of the family. She does the praising and the scolding.
2. When they were asked "why they selected certain foods, they gave health reasons such as "It is good for you."
3. The choice of carbonated beverages, desserts and hot dogs the reason given for the choice was "It tastes good."
4. Dietary records showed some knowledge of nutritionally valuable foods, but these foods were not listed as personally desirable.
5. Vegetables and fruit were not frequently listed.
These answers showed us what needed to be emphasized in teaching vegetables and fruit. This was a need pointed up by the North Carolina Nutrition Survey also. This test will be repeated next October in the same grades.

TEACHING ACTIVITIES:

We realize that we learn best by doing; next best by seeing and least well by hearing. With this in mind, various learning activities were planned for each grade level. There are concepts to be taught in the primary grades and others to be taught in the grammar grades. Here are some of the experiences provided for grades K through 2, initiated by the nutrition educator.

The kindergarten class cooked and ate breakfast at school one morning. They made up a pancake mix and cooked pancakes. They made a syrup for the pancakes by using brown sugar, water, maple flavoring and butter. From this experience they learned several concepts: "that food is good; that food is something to be enjoyed with friends and family; and that food is sometimes changed by cooking to make it taste better. We don't always eat food exactly as it is bought in the store."
The first grade students dried seeds from cherry tomatoes, planted them and
watched them grow. This was one of the nicest projects done because of
the feeling of continuity gained. From the plants you get the fruit and
from the fruit you get the seeds to plant more plants. It is a very sat-
sisfying secure feeling in this changing world. They learned that even plants
need food, just as children, pet dogs, cats, guppies and every living thing
grow and needs food, but not the same things. Another food concept learned
here is that not all food comes from the store, some people plant and grow
enough food to sell to the store for other people to buy. Coloring books on
food and food models were used in the lower grades as well as other grades.

The second grade activities included baking cookies in class. We have
small ovens bought for this kind of lessons. For arithmetic class, they
enlarged the recipe, in English class they wrote paragraphs about it, for
art class they made posters of children eating cookies and drinking milk for
a nutritious snack. This is a way to correlate nutrition with other subjects.
A concept here is that growing children have a continuous need for food. When
we get tired we can refuel with a snack of energy yielding foods. There is a
place in the diet for snacks. Another class made a store out of a big re-
frigerator box. The children bought food models with pennies. They bought
meals that had to contain foods from each of the four food groups. The store
keeper had to know how much each child owed and the customer had to know how
much to pay. The class made a check on both of them for arithmetic and to
see who bought the best balanced meal. The lessons here were obvious. One
class did a project on foods grown in North Carolina. Samples were brought
to class. They tasted them raw, felt them, smelled them and talked about how
they were served in the cafeteria. A discussion on textures was held and
which way they liked them best. The number of good foods available around
us and easy to get was emphasized. Some things they had never tasted before.
This could be used in state history, geography, cultural and ethnic influences,
occupations, costing, transportation and even "soul food."

The third grades studied dairy products. They had a tasting party and
sampled different varieties of cheese. The day they made butter in class with
a small churn from the dairy council was the climax.

A fourth grade did a unit on milk drinks and made four kinds in the cafe-
teria one afternoon. The discussion was on the use of these drinks for snacks,
for sick people and for overweight and underweight children. Understanding
that teeth and bones grow and need food to grow on like other parts of the body
was one of the desired concepts to be gained from this experience.

The fourth and fifth grades were given a demonstration on vegetable art
by one of the cafeteria supervisors. They made attractive centerpieces, favors
and decorations from fruits and vegetables. They named them Tommy Tomato,
Lily Lemon, Cabbage Head, et cetera. Marshmallows and other colorful
things were used as well as colored paper for hats and clothes. They thought
of many ideas themselves and other classes learned from these few classes.
Needless to say, the next time these foods were served in the cafeteria they
ate them very well.

A plate waste survey was done on several classes. They were served
turnips in the cafeteria one day with no knowledge that what was left by
these classes was collected separately and weighed. Later on these classes
were given a tasting party on turnips and rutabagas. They discussed the turn-
ips and how they grow, that they are edible roots, etc. At a later date
turnips were served again, this time in the class that had the tasting there
was so little turnips left on the plates we thought a mistake had been made. There was only \( \frac{1}{2} \) of an ounce left. We think children will eat food they know about and have had the opportunity to study about and taste. Raw roots like these were used in the libraries for the children to nibble on while they read books. Carrots were cut into strips and wrapped in individual servings in cellophane. Information about carrots were placed near by. A sheet of paper with a drawing of a carrot, that it contains vitamin A and is easy to grow locally (just a few sentences) the sheet could be taken home. Huge sunflower heads full of seeds were put in one time with books about them. Another time a big pineapple was put on display with various kinds of canned pineapple. A soybean plant and samples of these were used another time. Children became interested in what was going to be put in these interest corners the next time. Orange slices wrapped in cellophane was a popular item, but the librarian was worried about her carpet and asked us not to put juicy food in there. Raw peanuts was a good item to use—many children don't know where peanut butter comes from and black children do not eat it as much as white children. That has been my experience.

The sixth grade made a booklet on breadmaking. They visited the cafeteria and learned how the bread is made. They combined this with spelling, English and arithmetic. They also learned that chemical changes take place in the process of cooking that make the raw ingredients which do not taste good, more palatable for our use.

The sixth grade also kept dietary records for three days to see if their diet met the basic needs. They learned that needs for food vary according to sex, size, age and activities. Several obese members in this class learned
that they were overeating for their needs and that a diet was in order. The
most obese child in the two schools was a sixth grader who was found to have
such emotional problems that the mental health educator was able to place him
in the School for disturbed children. He was so fat he was not expected to
live to be twenty. At this school they were able to put him in a controlled
situation-on a diet and counsel him at the same time. The social worker from
the Welfare Department and mental health educator worked with the mother. He
could not stay in this school but ninety days and was then placed in a home
for boys until he gets straightened out. Excessive sugars and starches in the
diet, which are cheaper than meat cause many indigent children to be over-
weight.

Each year in the Durham City Schools the sixth grades have a project on
good manners. One teacher found a recipe for African punch and her class pre-
pared this punch for a tea. They sent out R.S.V.P. invitations, planned the
table arrangements and learned how to give a tea or how to serve punch for an
informal party. You can see from the slides how everyone enjoyed this project.
In May all sixth grades have a project on table manners and a dinner and put
into practice the acceptable manners they have learned. The fifth grades
serve the meal, which is quite an honor. They must plan a balanced meal,
which is prepared in the cafeterias, they invite guests, have welcoming
speeches, dress in Sunday dresses and coats for the boys. It is a memorable
occasion. They select classic music to play on the record player during the
meal and the meal is served in courses. After this grand experience, they
feel ready to meet the challenge of going to the seventh grade in another
school.
We think our multidisciplinary approach to teaching nutrition is the best way to teach nutrition because we must work with the whole child. Nutrition problems, health problems and learning problems are so closely related we must treat them all. To treat one area without treating the others causes some children to experience failure day after day. They fall through the cracks and are deemed to be failures all their lives. We are attempting to provide experiences that will help children to select the best habits for good health. We hope these experiences will have some carry over into the homes. We encourage the parents to take the initiative and accept their responsibilities of providing good environments for better physical and mental health.

In conclusion, I'd like to leave this thought with you from Dr. Bruno Bettelheim, a noted psychologist, who was speaking for The Children's Foundation, he said, "Eating experiences condition our entire attitude to the world, and again not so much because of how nutritious is the food we are given, but with what feelings and attitudes it is given." Around eating attitudes are learned, or not learned, which are the preconditions for all academic achievement, such as the ability to control oneself, to wait, to work now for future rewards.

It behooves all of us concerned with feeding children at home or at school to learn this important lesson.

May I invite all of you to visit Project F.C.C.D. if you are ever in Durham, North Carolina.