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ABSTRACT

The report of the 1970 convention of the Council for Exceptional Children includes a workshop on the need for teacher training in the behavioral and learning disability areas. The workshop proceedings discuss innovations in teacher training by James T. Tompkins and George T. Donahue, a prescriptive teaching system by Laurence J. Peter and Keith H. Sharpe, and a crisis model of teacher training by Nicholas Long. Topics also concern the future of training administrators by Daniel D. Sage, the movement of nonprofessional personnel to teaching positions by Marlys M. Mitchell, and the training of professionals and paraprofessionals in early intervention with atypical infants by Mary Ann Newcomb. (JM)

PREPARATION OF PERSONNEL

Papers Presented at the

48th Annual International Convention

The Council for Exceptional Children

Chicago, Illinois

April 19-25, 1970

Compiled by

The Council for Exceptional Children

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INNOVATION IN TEACHER TRAINING

James R. Tompkins
Bureau of Education for the Handicapped
U. S. Office of Education
U. S. Department of Health, Education and Welfare
Washington, D. C.

The Bureau of Education for the Handicapped's Division of Training Programs has created a unique funding device to plan and try new models of training. The new administrative approach is identified as the Special Projects Grants. These grants provide the tools whereby the educational personnel in colleges and universities can be assisted in developing, implementing, and testing new approaches for the preparation of personnel to meet projected manpower needs in the education of handicapped children. Funds are made available to support Special Projects programs under Public Law 85-926, as amended, to develop new approaches and to carry them out on an experimental basis. Further information can be obtained by writing to the Division of Training Programs, Bureau of Education for the Handicapped. For the purposes of introducing the participants, I would like to describe some emerging trends in teacher training for teachers of emotionally disturbed children illustrated by programs the Division of Training Programs is supporting.

1) Development of an evaluation and training model that has built into it the specification of general training objectives, trainee characteristics; the measurement of the attainment of specific behavioral objectives and the necessary training interventions of the needed skills and attitudes.

2) Training off college and university campuses in settings where students have extensive contact with emotionally disturbed children in classes, master teachers of emotionally disturbed children, college and university supervisory staff and where an attempt is made to integrate theory and practice by a concept of total immersion of the college instruction into field placement.

3) Content of training programs emphasize learning theory, learning disabilities, a diagnostic - prescriptive teaching approach, and remediation of behavior deficits.

4) More attention by some training programs is being paid to the ecological components of the community. This approach stresses the involvement of

the program graduates in changing the child's total life space. This may include the child's family, peer group, school, teachers, church, recreational activities and other parts of the social system which directly affect his life.

5) Introduction of modular training sequences which provide trainees with skills specific to performances in public schools.

These trends will be discussed and challenged by the participants in today's workshop, "A Shourt Course on Innovation in Teacher Training."

The presentation will be made by:

Dr. Laurence Peter. Dr. Peter is from the University of Southern California and is noted for his work regarding diagnostic - prescriptive teaching.

Dr. George Donohue. Dr. Donohue is Vice-President, E. F. Shelley and Co., Inc., and is noted for his work in preparing para-professionals in the education of disturbed children.

Dr. Nicholas Long. Dr. Long is from American University and Hillcrest Children's Center and is noted for his work in the preparation of crisis teachers for disturbed children.

Mr. Dave Wineman. Mr. Wineman is full professor from Wayne State University and is noted for his work in the development of intervention strategies, especially the Life Space Interview in the management and treatment of disturbed children.

Dr. Eli Rubin. Dr. Rubin is the Director, Northeastern Wayne County Child Guidance Clinic in Detroit. He is noted for his work in remediation of learning and behavioral disorders of children.

(Editor's Note: Papers not available from Mr. Wineman or Dr. Rubin.)

Prescriptive Teaching System: A Program for Teacher Education

Laurence J. Peter and Keith H. Sharpe

University of Southern California
Los Angeles, California

At the Evelyn Frieden Center for Prescriptive Teaching at the University of Southern California, beginning teachers were successful in teaching individual children with disabilities ranging from mild behavior problems to severe learning disabilities and childhood psychosis. Desirable results were obtained in both regular and special classrooms utilizing the Prescriptive Teaching System. The system is therefore recommended for both regular and special class teachers.

The Prescriptive Teaching System is an organization of definable and observable components of the process of instruction to achieve a predetermined or prescribed objective.

The systematic analysis of teaching began with a study of effective teacher-student interactions. This was undertaken to determine the specific effective components which could be utilized in teaching children who were not making satisfactory progress in regular class placements.

It was observed that children who were failing academically or in social adjustment frequently succeeded in one subject or situation and responded more favorably to one teacher than to others. It was decided to investigate the successful interactions the children were having with their social and physical environment in order to determine if a basis for successful teaching could be established. It was observed that effective teaching was much less a mystique than was usually assumed and that significant commonality of behavior existed

among teachers when they were being effective. Teaching is complex but it is not infinitely complex and is therefore not beyond scientific study. Much of the teacher behavior was not esoteric and could be studied objectively. One of the keys to the analysis of the complex performance of teachers was to devise a structure of elements into which any component could be classified. In this way the continuous flow of teacher behaviors were segmented into manageable parts which could be understood individually and in their relationshop to the total process. The structure which emerged became the conceptual model of the Prescriptive Teaching System. The effective teacher-child interactions were utilized in the development of the conceptual model so that the model became the structure of the behaviors of a master teacher.

The behavioral analysis of teacher-child interaction and the more recent systems analysis revealed some of the needs in teacher education. Many teachers, some with extensive experience, had never learned to fully utilize their potential effectiveness when interacting with a child. It was not uncommon, for example, to observe a teacher competent in general classroom management, being ineffective in dealing with certain children. In teacher education the first experience in practice teaching was in teaching a class. Student teachers who had not learned to be effective in teaching one child were expected to be effective in teaching a class of children.

If all children were identical in all learning characteristics it would be theoretically possible to learn to be an effective teacher under these conditions. Because such a class does not exist, it was decided that the Prescriptive Teaching System should start with teaching one child before teaching groups of children.

Traditional teacher preparation programs were based upon a false assumption that experience with normal children was an appropriate prerequisite for teaching children with problems. The analysis of behavior shows that problem solving ability is developed through problem solving. If you want to produce problem solvers, have them behave as problem solvers. The astronauts for example, learned to solve some of the problems of weightlessness through simulation on earth before they experienced it in space. They learned to solve the problem through learning to solve the problem. There is no reason in logic nor in fact to assume that there is something inherent in teaching efficient learners which prepares one to teach inefficient learners. The opposite appears to be the case. There is a tendency to insist that what works for the majority is right for the minority. This results in insistence that either the child would learn if he worked harder or that the problem is within the learner. The former results in repititions of ineffective methods and the latter results in the child being diagnosed and classified as handicapped.

A request for help for a child who was failing academically or was developing inappropriate social behavior, set into motion a variety of procedures which resulted in the child receiving some kinds of diagnostic services. As a result the child was said to be underachieveing because he lacked intelligence, emotional stability, perceptual development or motivation. The diagnosis usually placed the child outside the realm of the teacher's capability. The teacher could not improve the child's I.Q., his socio-economic background, his home environment or his mental health. In some cases the child could be removed for special treatment or be placed in a special class. None of these procedures resulted in the teacher learning how to teach the child. Another approach was to add additional school counselors,

school psychologists, social workers and other consultants. This escalation of personnel seldom achieved the desired outcome because it focused on the problem and rarely on the solution. The solution would have been a precise process of instruction which would assure the child's success.

A further approach was to increase the teachers' education. To prepare the teacher to work with inner city children the assumption was made that the teacher should have increased knowledge of the difference in the social values of the middle class establishment and of the subcultural poverty areas. Therefore, the teacher was encouraged to take courses in sociology, cultural anthropology, ethnology and in some cases even African history. Obviously this failed because there was no evidence that the sociologist, the cultural anthropologist, the ethnologist, or the African historian knew how to teach the inner city child.

Similarly teachers of the emotionally disturbed or behaviorally disordered child were urged to take courses in mental health, abnormal psychology and to study various forms of counseling and therapy. The evidence was also lacking that experts in these fields knew how to teach the disturbed child. All of these approaches result in escalation of teacher education courses, escalation of non-teaching consultants and escalation of the number of special classes.

Education needs concerned, well intentioned, dedicated teachers, but it also needs systematic solutions to the problems of instruction if it is to become a dynamic enterprise in a world of accelerating change.

Most teachers have to manage classrooms, teach children in groups and provide individual instruction. Effective classroom teaching is more complex than individual instruction because it includes individual instruction, group instruction, and classroom management. The analysis

[illegible] indicated that teachers should first learn how to instruct one child before learning how to instruct a group. Every component of the system of individual instruction is also a component of group instruction.

To learn any complex task well it is desirable to have the task analyzed so that each component can be learned separately.

If the teachers first experiences require the complex or terminal behaviors, the probability is that the complex skill will not be learned very well. This is obvious in learning any trade or profession yet in learning to teach, traditional practice requires that the student-teacher's first experience is in teaching a class. In most programs the beginning teaching task is essentially the same as the terminal objective. As a result of the systems analysis the Prescriptive Teaching System divides teachers preparation into three phases: (1) individual instruction (2) classroom instruction and (3) inter-disciplinary communication.

At the Evelyn Frieden Center for Prescriptive Teaching the services of L. Turner, an industrial engineer, were obtained and a systems analysis was undertaken. The systems analysis produced flow charts and record forms which identified and recorded each component in the process of instruction. It resulted in a program that facilitated the acquisition of the skills and abilities of a master prescriptive teacher. As a result of the system analysis it is now possible for large numbers of teachers to learn the Prescriptive Teaching System.

The Prescriptive Teaching Sequence is comprized of a series of systematically related courses and practica which serves as a focal point for the integration of the graduate curriculum of the Department of Special Education and The School of Education at the University of Southern California. Thus, the specific skills acquired in the

Prescriptive Teaching Sequence are systematically augmented with the University experience to provide well-balanced professionals who have demonstrated their effectiveness in applying their skills with emotionally disturbed and behaviorally disordered students.

Professionals trained in the Prescriptive Teaching Program are prepared to work with children identified as autistic and schizophrenic as well as the whole spectrum of seriously disturbed children. Referrals to the Evelyn Frieden Center, one of the primary practicum facilities operated by this program, have been classified as emotionally disturbed, under-achievers, maladjusted, autistic, schizophrenic, hyperactive, culturally disadvantaged and behaviorally disordered.

The professional skills and individualized abilities of the Prescriptive teacher form the underpinning of this program. These include the diagnostic skills of establishing objective baselines and baserates of behavior; accurately identifying the critical behaviors, and ascertaining the educational relevance of information provided by psychological, medical and social diagnosis. Effective Prescriptive Teaching behavior also includes the ability to write menaingful terminal and enroute instructional objectives, and the ability to organize materials, appropriate methods, and other environmental contingencies so as to maximize the probability of achieving the objectives. Professional skills are acquired in three interrelated phases. The first phase is the development and application of assessment and remediation procedures with the indivudual child. In the second phase, the focus is upon the implementation of effective procedures in the classroom. The final phase is developed at the post-master's level. It is concerned with the professional's ability to communicate, to make contributions and function effectively in an interdisciplinary setting.

At the post-master's level of the program, these professional skills are advanced further, with particular stress being upon the assessment of outcomes. Abilities in advanced professional areas, such as college teaching, school psychology, special education administration, and skills necessary to design and conduct research into empirical questions relevant to the Prescriptive Teaching of the emotionally disturbed child, are systematically developed in the student.

In summary, this program is based upon a systems analysis approach to the training process and the application of sound learning principles at all levels. In teaching a child, it identifies the critical behavioral deficits and then teaches the child the necessary adaptive behaviors for effective social interaction. The training aspect of the program studies the teacher-child interaction to identify the effective professional behaviors of the individual in training and then develops these within the individual professional, rather than attempting to fit the teacher in a pre-determined role. The program recognizes individualities as being integral parts of effective teaching. This process sensitizes the professional to those attributes of his personality that are effective in the teacher-child interaction. The academic and practicum course sequence employs instructional methodologies that have been designed to maximize efficiency and effectiveness; as a result, the professional level that can be achieved is significantly enhanced.

THE PRESCRIPTIVE TEACHING SEQUENCE

A Professional Training Sequence for the Development of Master Teachers of the Educationally Handicapped

The Prescriptive Teaching Sequence is a series of courses and related practicum experiences which are an integral part of graduate programs offered by the Department of Special Education and Teacher Education in the School of Education of the University of Southern California.*

The Prescriptive Teaching Sequence is designed to develop the professional abilities necessary to teach emotionally disturbed children and remediate behavior and learning problems. The Prescriptive Teaching Sequence provides both instruction and practicum in the accurate evaluation of behavior disorders, prescription of effective curriculum and implementation of the prescribed programs within public schools, private day schools, or residential institutions.

The training procedures utilized in the Prescriptive Teaching Sequence are based upon systems analysis, simulation, and instructional technology which have proven successful in developing complex skills of medical, space, and business management personnel. Each step within the sequence is coordinated by a systematic approach to educational planning. Through a precisely ordered series of simulated experiences, the Prescriptive Teacher in training develops the skills for each procedure within the Prescriptive Teaching Sequence while neither duplicating nor skipping essential elements of the training. These procedures are then applied in the concurrent practicum.

* See Program for Preparation of Educational Specialists for Emotionally Disturbed Children, Department of Special Education; and the credential and degree programs of the Department of Teacher Training.

The Prescriptive Teaching Sequence is divided into three phases. The objective of the first phase is that the teacher will develop the ability to evaluate and implement sound educational solutions for the problems of individual children. The second phase develops the ability to implement sound educational solutions for the classroom. With successful completion of the first two phases of the sequence, the Prescriptive Teacher will be a master teacher of the educationally handicapped.

The third phase, usually taken as part of doctoral studies, expands the Prescriptive Teachers' ability to work in an interdisciplinary setting and to implement and supervise Prescriptive Teaching Programs. All three phases of the Prescriptive Teaching Sequence constitute a required core of experience for doctoral fellows in the area of emotional disturbance. It is also highly recommended for doctoral students preparing to work in the area of the educationally handicapped. The completion of the three phases of the Prescriptive Teaching Sequence taken in conjunction with other graduate programs provides a sound basis of professional skills in preparation for careers in classroom instruction, school psychology, school counseling, administration of special education programs, educational research, and teacher education.

The following outline describes the Prescriptive Teaching Sequence in more detail:

Course Instruction	Concurrent Practicum
Phase I	
Ed Ex 561 - Behavior Modification for Exceptional Children (2 units)	Ed Ex 566 - Clinical Teaching of Children with Educational Handicaps (2-6 units) (3 semesters, 2 units each)

This is the first course in the Prescriptive Teaching Sequence and consists of a series of simulated experiences, programmed lectures, and demonstrations. Through simulation the teacher in Ed Ex 561 develops the ability to accurately evaluate the behavior of educationally handicapped children, and apply sound educational solutions. Behavior modification techniques, appropriate for school use, are employed in dealing with a wide range of emotional and learning problems.

Since this course is systematically designed to include all of the Prescriptive Teaching procedures in a rapid and efficient manner, it is required that Teachers be in attendance from the first session.

This course is designed to be taken initially with Ed Ex 561 and, thus, enrollment in Ed Ex 561 during or as a prerequisite to the first Ed Ex 566 experience is required. The student may repeat this course for credit for two semesters after the initial semester is completed. The objective of Ed Ex 566 is for the Prescriptive Teacher to apply the procedures learned in Ed Ex 561 under the supervision of the Evelyn Frieden Center staff.

Full time, on-campus students may be assigned a child through the Evelyn Frieden Center where clinical facilities are available. Practicing teachers may elect to do clinical teaching of a child in their own schools. Supervision and advisement will be provided through the Evelyn Frieden Center Staff.

The first semester in Ed Ex 566 places emphasis on the teacher-

child interaction. During the second semester development of precision in the teacher-child interaction is continued while involvement is increased in counseling the child's parents and assisting others in the child's management. The third semester includes increased inter-disciplinary involvement.

Course Instruction

Phase II

Ed Ex 565 - Prescriptive Teaching of Exceptional Children (2 units)

This course presents a systematically planned series of lectures, demonstrations, and simulations with educationally handicapped children in both regular and special classrooms.

These children usually are described as having emotional disturbance, behavior disorders, hyperactivity, learning disorders, or minimal cerebral dysfunction.

A number of classroom designs for effective management of

Concurrent Practicum

Ed Ex 591a - Field Work in the Area of Exceptional Children: Practicum in classroom Methods for the Educationally Handicapped (2-5 units)

The purpose of field work in the area of the educationally handicapped is to provide experiences in effective management and organization of classes for children with behavior and learning disorders.

The field work experience is planned to insure that each enrolled Prescriptive Teacher is given the opportunity to master the abilities required

behaviorally disordered children are presented. These include the Prescriptive Teaching Classroom and the Engineered Classroom. Classroom management through contingency and stimulus control is stressed. Effective interventions for management of the emotionally disturbed child within the regular class are presented.

It is recommended that students take Ed Ex 561 in the Prescriptive Teaching Sequence before enrolling in Ed Ex 565.

for professional competence in this area. The first placement will be in classrooms which employ systematic behavior modification techniques. The second placement may be selected from any of the approved training facilities in the Los Angeles area.

Supervision will be under the direction of a faculty member of the Department of Special Education working with staff members of the selected training facility. Supervision is planned to provide systematic observation of the Teacher.

For each unit of credit in which the Prescriptive Teacher is enrolled, three hours per week of field work practicum is required. It is recommended that the placement be arranged and approved by the supervisor of field work in the Department of Special Education preceding registration for the course.

Phase III

Ed Ex 646 - Interdisciplinary Approaches to the Problems of Exceptional Children (4 units)

The purpose of Ed Ex 646 is to give Prescriptive Teachers and other graduate students in special education a post masters level experience in working with other professional disciplines involved with exceptional children. The course consists of the two sections described below.

Course Instruction	Concurrent Practicum
The on-campus seminars consist of study and practice in group problem solving techniques and interdisciplinary communication skills.	The practicum is conducted at Childrens' Hospital and includes experience with members of the major professions dealing with children's problems.

INNOVATION IN TEACHER TRAINING

George T. Donahue
E. F. Shelley and Company, Inc.
Washington, D. C.

It is thought that a discussion of changes needed in the preparation of teachers of the emotionally handicapped has to be related to what seems to be happening in education and also to preparation of teachers generally.

We're on some educational kicks again - directions emanating from Washington and some of the universities that I believe have implications for teacher training that may be contrary to some of what I wish to propose - that may take us down a glory path that will lead us into a system of locked-in children who may or may not achieve scholastically better than some of our present products, - but at the sacrifice of their development in the affective areas. The two directions - or kicks - I wish to discuss are (1) Performance/Behavioral Objectives, (2) Educational Accountability and Performance Contracting.

A performance or behavioral objective as explained by Dr. Robert F. Mager in Preparing Instructional Objectives, Fearon Publishers, Inc., Palo Alto, California, 1962 is ". . . an intent communicated by a statement describing a proposed change in a learner - a statement of what the learner is to be like when he has successfully completed a learning experience. It is a description of a pattern of behavior (performance) we want the learner to be able to demonstrate. As Dr. Paul Whitmore once put it, "The statement of objectives of a training program must denote measureable attributes observable in the graduate of the program, or otherwise it is impossible to determine whether or not the program is meeting its objectives."

"When clearly defined goals are lacking, it is impossible to evaluate a course or program efficiently and there is no sound basis for selecting appropriate materials, content or instructional methods."

Few, if any, would quarrel with the need for educators to develop performance or behavioral objectives to a greater degree than we have, so long as it is recognized that this kind of objective already exists, particularly at the elementary level and in vocational education. For a good many years reading programs, for example, have stipulated that children by such and such a time should have a sight vocabulary of "x" words and have listed the words. In addition, unit tests were provided not only to check this but also the level of word skills, comprehension, speed of reading, etc., etc. In vocational education the objectives have been stated in terms such as, "By the end of the first year the

student should be able to replace and adjust the point clearances in carburetors for American made cars." These kinds of statements begin to approach Mager-like objectives. There is no doubt that Dr. Mager has made a major contribution to American education by focusing the attention of educators on the need for more specificity in stating our goals and objectives, the need for better measurement of whether or not children achieve these objectives, and by teaching us a way to accomplish both.

But he is being profaned, - just as John Dewey was in his time. There are people around the country and some systems that are peddling the development of Mager-like objectives as the cure-all for everything that is wrong with American education.

"Computer-assisted instruction (CAI) and behavioral objectives, two of education's most publicized innovations, were shot down this week by an official of the Institute for Development of Educational Activities (/I/D/E/A), a very innovation-minded affiliate of the Charles F. Kettering Foundation.

"Addressing the California breakfast for school administrators at the NASSP Convention in Washington, Dr. B. Frank Brown, the Institute's Director of Information and Services, called "sifting through innovations which are being imposed on the school by special interest groups' one of the biggest jobs facing school principals today.

"'I cannot overemphasize the necessity for resisting special interest innovations,' Dr. Brown told participants. 'Perhaps the noisiest of this group are the commercial firms pushing computer-assisted instruction. Just let me say that CAI can be compared to the position of Moses when he stood on Mt. Pisgah. He could see the Promised Land but he was destined to wander 40 years in the wilderness--and so it will be with computer-assisted instruction.

"Behavioral Objectives--'A Snare And A Delusion' 'Another snare and delusion is the educationist group which has blown the concept of behavioral objectives all out of proportion to its importance. Behavioral objectives are a snare and a delusion. They have largely been contrived in such a fashion that they will maintain and harden the existing classroom approach to learning,' Dr. Brown warned the educators.

"Three significant changes which Dr. Brown predicted for the schools of the seventies were: 1) Better communications between the entrepreneurs of learning and the consumers; 2) Opportunities for youth to perform services as a part of their schooling; and

3) The extension of the school into the community with a more relevant curriculum, 'and by relevant I mean FOR ME, FOR HERE, and FOR NOW,' he added." [1]

This is leading us into a tremendous teacher-training effort to prepare teachers to write these kinds of objectives and then to teach toward them. I have seen many efforts in this direction, including a couple of teacher training institutions that are revamping their training programs along these lines.

I'm wondering what's happening to the children, particularly in the affective aspect of their development, since I have yet to see performance objectives in anything except subject matter areas. I know of one school system that converted its elementary program to this process with no noticeable improvement in achievement. What was significant were the results of a Harvard study, inconclusive to be sure, which indicated that children's achievement motivation was adversely affected to a significant degree. Is this profaning of Mager and his associates leading us into a further dehumanization of the educative process at a time when what comes through loud and clear from the students is a desperate need for more humanizing. And could this development produce a generation of teachers who feel they have done their jobs if the children indeed do achieve these course-subject objectives. And how could it accommodate to the needs of emotionally handicapped children where the basic goal might to be improved at better integration of personality first, and educational progress, second?

Is this any way to run a teacher-training program? It's an innovation!

The second direction or kick I wish to draw to your attention briefly is educational accountability and performance contracting. Listen to what some are saying in the Office of Education. "The Independent Educational Accomplishment Audit, which ensures accountability for results (one facet of educational engineering), parentheses mine. An independent educational auditor objectively evaluates the operation of the program and certifies that the claimed educational results have been accomplished. The independent educational auditor's report is made public, thereby creating the demand for performance-based educational programs." Now, none of us would quarrel with the desirability of accountability. But is this the way to do it? What of children's total development and the subtleties we don't know how to measure? Are they to be ignored? What of the teacher of emotionally disturbed children

[1] Education Daily, 3, 29, (February 12, 1970), p. 3.

whose objective is the improved mental health of the children. I'm not at all sure this can be measured objectively, or is she to be judged solely on pupil progress in some compensatory education aspect of the total program. And what are the implications of such an approach for teacher training? Does it mean teacher trainers should turn out educational technicians or mechanics whose primary purpose in being is to get "x" number of children to attain "y" quantity of performance objectives?

Now tie this in with performance contracting, - likewise being promoted by the same source. "Performance contracting (another aspect of educational engineering), parentheses mine, whereby a school contracts with private firms, chosen competitively, to remove educational deficiencies on a guaranteed performance basis or suffer penalties. Without being told what program is to be used, the contractor is encouraged to innovate in a responsible manner. Upon successful demonstration, the contractor's program is adopted by the school on a turnkey basis, i.e., a process wherein local teachers and administrators are trained to take over the program." This sounds to me precisely like the function of demonstration research for which the Feds have spent and continue to spend millions of research dollars without building into their own grants performance contracting specifications. But maybe more important, what is the implication of this for teacher and administrator training. Are we headed for administrative technicians and teaching mechanics? Are we about to turn over the teaching function by default to private enterprise and sacrifice children's development to the profit motive?

It's time teacher organizations took a long hard look at these two new directions and got themselves mightily interested in developing viable alternatives - a piece of which has to encompass teacher preparation.

The point I'm making is that these trends already have triggered some innovations in teacher training and undoubtedly will stimulate others, - and maybe not in the right direction or for the better. But more about the right direction later.

Listen now to what some others are saying.

Dr. Kenneth B. Clark in talking about the education of the "disadvantaged," a term he rejects, says in part, "The record of public education in the United States historically demonstrates that despite previous conditions of economic or cultural deprivation, human beings have been able to use education as a means of overcoming economic disadvantage.

"This has been true of every wave of European and Asiatic immigrants.

There is even evidence that this is equally true for Negro youngsters. When they are adequately taught, they also learn.

"When one examines the various compensatory or enrichment programs which have been successful in raising the academic achievement of minority group students, one finds that the significant new ingredient is invariably more effective teaching. It follows therefore that the answer to the question of the best way to teach "the disadvantaged" is embarrassingly simple-namely, to teach them with the same expectations, the same acceptance of their humanity and their educability and, therefore, with the same effectiveness as one would teach the more privileged child." [2]

What comes through to me from what he is saying is that successful teaching of the disadvantaged, and therefore, of all youngsters has more to do with humanness, - the relationships that exist between teachers and students than it has to do with methodology, materials, organizational patterns, etc., important as these may be.

Dr. Willis W. Harmon, at the Educational Policy Research Center, Stanford Research Institute puts it another way.

"A fundamental question to be resolved. Among the multitude of factors which directly or indirectly enter into the process of the education of the individual--philosophy, curriculum, technology, and so on through the list--which are the ones that really make a difference? A second equally important question has to do with how things can be changed to optimize the desired effects of these factors.

"The necessary research on the first of these questions has not yet been accomplished. However, we can extrapolate from some important clues in the studies that are available. I strongly suspect that it will come out this way. In terms of achievement of both the broad goal of the fullest possible development of the individual's capacities and of his abilities to use them wisely and constructively, and also the more specific goals of the particular learning situations, the variables will tend to fall into two main groups. One will be a group of manifest factors which are the obvious sorts of things one would assess in order to describe an educational situation and how it differs from others. This list might include such items as cost per pupil, student/teacher ratio, amount of systematic reinforcement, use of visual aids, physical environment, degree of logical organization

[2]Dr. Clark is president of the Metropolitan Applied Research Center, Inc., professor of psychology at City College and a member of the New York State Board of Regents.

of subject material, and so on. A second group will be what might be termed "subtle factors," difficult to get at in operational terms and typically overlooked in giving a description of the educational situation. This second list might include such items as the teacher's expectations of the students, the teacher's basic esteem of herself and of the students as persons, the teacher's enthusiasm for whatever methods she is using, the student's perception of the relevance of the whole situation to his own goals, the congruence of stated and non-verbal messages, implicit contracts between student and teacher, and so on. Preliminary evidence indicates that the second type of factor may be much more important than the first. My hunch is that further research will show this to be true to a far greater extent than we now suspect."

What this indicates to me again is the need for teachers to be first, pretty expert in the area of human relations, - emotionally healthy individuals themselves.

Dr. Edmund W. Gordon, commenting on the Coleman Report in the I.R.C.D. Bulletin, November, 1967, says, "Variations in facilities, offerings, and teacher qualifications may be of less importance than pupil-teacher interaction, teacher expectation, classroom climate, pupil-pupil interaction and the types and demands of the learning experiences available," again a strong implication that teachers need to be expert in human relations and savvy in the area of child-development principles and their relation to what goes on in the classroom.

Now let's turn to an old friend, Bill Cruickshank who together with James L. Paul and John B. Junkala in Misfits in the Public Schools, Syracuse University Press, 1969, make some interesting points. They say in talking about the selection of teachers to participate in a demonstration teacher-training program for teachers of brain-injured and hyperactive children,

"In some instances, in spite of the care with which initial contacts were made with school systems, school administrators used the proposed program to solve their administrative and personnel problems rather than to be chiefly concerned about the children affected. In one system, although classes for brain-injured children existed in the community schools, the administrators made it perfectly clear that they refused to consider for participation in this program the teacher who had been specially trained. The upper echelon administrators voiced extreme discontent with this teacher and indicated that she would not be asked to return next year. When questioned as to why the teacher sent, a veteran of that system, had been selected for the university program, the reply was that it was hoped such training

would improve the teacher's attitude and abilities and that such an appointment would get the teacher 'out of the way' for a year!"

"Another chief school administrator, in conversation with the project director, confessed that the teacher who had been sent to the university was among the most difficult individuals in his school system, was considered to be seriously maladjusted, and that it was hoped the training program of the university where there would be some psychiatrists would solve the teacher's personal problems! "We had hoped," said the superintendent, "that you would send her back cured." Still another superintendent stated that, "When you've got a chance to get rid of a problem for a year, you jump at it in this game. Thus, some inadequate teachers were sent for a year's advanced training." And this to an innovative program!

In another place Bill and his associates provide another example. "A teacher of educationally handicapped children, without permission, called all of her children's parents to school on one occasion. They were seated in a horseshoe arrangement around the teacher. The teacher, a junior high school instructor with no preparation for the work she was doing, started around the circle telling the parents directly, one by one, why their children were 'failing in school' and indicating the parental responsibility. She finally came to Mrs. Smith and stated, 'You, Mrs. Smith, are the cause of your child's problems.' She then proceeded to itemize for Mrs. Smith all of the ways in which Mrs. Smith failed to cooperate with the child or the teacher in handling the child's problems. Mrs. Smith said nothing until the teacher paused, and then she said, 'As a teacher of emotionally handicapped children, I wonder if you know what you do to my family when on Friday afternoon you send Tommy home with a list of 100 spelling words which must be memorized by Monday morning?' This teacher-parent impasse is the result of an unprepared teacher and the lack of administrative fortitude and willingness to remove her from her position, and of a system which permits ill-prepared personnel to meddle with the lives of disturbed children and the families which try to support them."

Could we agree this teacher lacks sensitivity as a human being - let alone any understanding of good mental health practices as related to teaching?

Now for a quick look at what's happening in teacher education. First, the Office of Education, as reported in Education Daily, Vol. 2, No. 234, Dec. 12, 1969,

"It's not how you train the teachers but how well they do their

job that counts, Associate Commissioner Don Davies told a Teacher Education conference in Minneapolis last week.

"'Federal programs for meeting educational manpower needs under the Education Professions Development Act will be funded only if they can be evaluated on the basis of performance,' Davies told the group in explaining his Bureau's new emphasis on educational accountability. 'The essential element in evaluation will no longer be the means by which education personnel are trained, but the effectiveness of the learning that takes place as a result of that training.'

"Transition From the Old To The New The Bureau of Educational Personnel Development, which administers EPDA, is making a transition from former training activities 'inherited from earlier legislation' to those which focus on the child--particularly the disadvantaged child--and to those which emphasize change, Davies said. The trend is away from short-term, exclusively college-based training to long-term projects, 'which involve a partnership of colleges and universities, State and local school systems, and the community to be served by the personnel to be trained,' he said. Limited programs that concentrate on specific subjects are on the way out, and programs that focus on certain priority fields are in, he added."

While you may not agree with all of this, it is encouraging to notice the emphasis being placed on clinical training, i.e., practice under controlled conditions. The question, however, remains, clinical training under whom? A teacher like Bill Cruickshank's example of the junior high school teacher turned teacher of the emotionally handicapped?

Or, examine the teacher-training programs singled out by the American Association of Colleges for Teacher Education for their 1969 Distinguished Achievement Awards. In the descriptions of the programs in the bulletin of the American Association of Colleges for Teacher Education which received Distinguished Achievement Awards for Excellence in Teacher Education, you will find emphasis placed on programs providing opportunities for participation in the social problems of the city and understanding the complexity of metropolitan educational problems; - a college program which contracted for the educational management of a local public school district for a period of one year; - a program for a college using individualized instruction in its own program by the accomplishment of stated performance objectives which describe learning in terms of measureable behavior; - a program with major program innovations in a) liberalizing seminars in the natural sciences, social studies and humanities;

-b) a professional semester which integrates the psychology of learning, methods of instruction, and student teaching; - c) a one semester resident teaching internship; and d) a new pattern of graduate studies.

These are sketchy and therefore, unfair summaries of these programs dictated by the limitations of my time allotment at this meeting. All of these efforts are worthwhile and commendable, and, I guess, innovative. But, how close do they come to the basic problem?

One program came somewhat close, - i.e., a program for Development of Teaching Potential Through Human Interaction Program - a program providing a number of in-depth, positive interpersonal relationships beginning in the freshman year and lasting throughout the four years of college.

The kinds of innovation in teacher education that are needed have to be related to an identification of what is the basic problem. In this connection I come back to Kenneth Clark, ". . .to teach with the same expectations, the same acceptance of their humanity, - or to Harmon's subtle factors, ". . .the teacher's expectations of the students, the teacher's basic esteem of herself and of the students as persons, - - - etc., in short, healthy individuals expert in human relations. Or the message coming to us from students, - well stated by Samuel Fisher Dabbitt, president of Kirkland College, Clinton, New York, in an inaugural address reported in the Wall Street Journal.

"Finally there is a cry for humanity. Don't turn me into a number; don't treat me like a thing. Look in my face and behold me as an individual . . .. But students respond to the medium in which they live; they respond to the anonymity of such a system in two kinds of ways: Either they learn impersonality and thingness and are thereby robbed, or they celebrate personality alone above all else and retreat to privacy in an isolated room. In both cases, they are consumed and defeated by their reaction to the system and the people who put them in it."

This is not to denigrate the importance of having teachers adequately prepared in subject content, materials, methods, use of technology and so on. But it is to say that if I had to isolate the two most important aspects of teacher preparation in need of innovation they would be in the direction of developing the right kind of human beings. Innovation, as I see it, is needed at the point of selection and acceptance of candidates for teacher-training and secondly, during the preparation program. What I propose is building into the selection and admission procedures of teacher-training institutions the well developed and accepted

principles of psychology and psychiatry to weed-out candidates who have neither the personality nor the desire to ally themselves to children in a healthy teaching relationship. Even with the limitations of psychology and psychiatry as sciences, much of what has been established could go a long way toward weeding out potential teaching misfits before they even get out of the starting blocks. In short, innovate to prevent to the degree we can, personalities from entering teacher-training programs who are obviously unsuited (by personality and temperament) to the needs of children.

In the training programs themselves, innovation is needed to rely more heavily on the skills of cultural anthropologists, psychologists and pediatric psychiatrists to do a better job of teaching teachers child development principles and translating them into action programs in the classroom.

As I said in 1965 in "Teaching the Troubled Child",[3] "The thoughtful educator - the one in an operational job like a superintendent of schools, a principal, a teacher - who tries to provide for the educational needs of children now, knows that he has to deal with children as children. He knows now and has known for a long while that his job is primarily one of human relationships, person to person. He knows now and has known that the key to unlocking the learning process is the relationship that exists between the child and the teacher. And it is precisely here that he needs help from the behavioral sciences. He's not apt to get it in the kind or quantity needed in the near future, because our research efforts and money are going into missiles, trips to the moon, automation, all designed to improve human relations, but probably by removing the need for relations.

"Regardless of the level at which he works, the educator's job is one of identification and adaptation. He must identify the needs of children for whom he is responsible and then adapt the program to those needs. Too often, however, this is not what happens. A group mold is designed and developed and the children are stuffed into this preconceived mold and kneaded and prodded to fit it. This works for those who fit. But what of those who can't or won't? These are the ones who have to face a daily dose of failure. What child, - or adult, for that matter - can long tolerate or survive a daily dose of failure? These are the discards, the push-outs, and maybe eventually, the hopelessly unemployed or delinquent.

"If improvement in the quality of education is to be made in this country, it is going to come through improved human relations

[3]Donahue, George T. and Nichtern, Sol, Teaching the Troubled Child, Free Press, 1965.

in the classroom, and greater facility in identifying children's needs and adapting to them."

Looking at innovations in teacher preparation and some of our more recent "kicks" in education I still feel as I did in 1965, "All of these groups are really tilting at windmills. Teachers who have been certified recently are pretty well grounded in subject matter and have relatively good backgrounds in methods and techniques."

I'm with Kenneth Clark and Willis Harmon - education is a human process, - the subtle factors may be much more important than the manifest. The three areas of teacher preparation that need strengthening are first, the selection procedures for admitting young people to teacher-training programs; second, the quantity and quality of courses they should be required to complete in child psychology and child development, and third, the choice of school systems in which they do their interning, for what profit is there in interning under an inept teacher?

Perhaps the most important innovation needed is a shotgun wedding of the Office of Education and the National Institutes of Mental Health and a stronger alliance of teacher trainers and behavioral scientists.

INNOVATION IN TEACHER TRAINING: CRISIS MODEL

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The need for educational change in local public schools has become a national concern. Like the wind, this concern is all around us. Its turbulence is easy to feel but difficult to see and direct. Unless significant modification of the educational system takes place within this decade, the demise of public school education in major cities is as predictable as the storm warnings of a hurricane. This comment is not an impulsive, emotional statement designed to frighten concerned educators and citizens, but a painful conclusion after eight years of serving as a psychoeducational consultant to classroom teachers, counselors and principals on a weekly basis in the greater Washington area. The ground swell of feelings among classroom teachers is one of anger, fear, helplessness and guilt. A second grade teacher described these intense feelings during a recent group meeting.

> "I am sick and tired of listening to supervisors, principals, and experts tell me what I should be innovating in my classroom. I know what I should be doing and I know what I want to do, but with 32 inner city children who have special problems, needs and experiences, there is simply not enough of me to go around. I became a teacher because I love children and I love to teach. Lately I have not been able to do either. By 1 p.m. my energy and patience are all used up and I end up doing all the things I promised I would never do as a teacher. I yell, threaten, and scream. Sometimes I get so frustrated and depressed by this situation that my husband has asked me to quit. I wish I had the ability like some of my teacher friends who seem to enjoy tough situations. Unfortunately, I cannot develop educational ecstacy out of agony. For me, I only feel agony."

What on-the-spot assistance can we provide classroom teachers beyond saying that teaching conditions are disgusting and discouraging, or offering simple euphemisms like:

1. Hire more dedicated teachers
2. Develop more relevant curriculum
3. Screen out problem children
4. Have smaller classes
5. Turn the schools over to the community
6. Pay teachers teacher-hazard pay

While all these simple solutions have some merit, they are not going to provide the teacher with any immediate relief. It has been our policy at the Psychoeducational Institute of Hillcrest Children's Center to provide an in-service training program for teachers based upon a crisis model. This approach has been described in detail in a monograph entitled "Direct Help to the Classroom Teacher" published by the Washington School of Psychiatry, School Research Division. Today we will focus on the first part of this model by demonstrating to teachers that educational crises can be the best times to teach meaningful concepts and educational strategies. What the school perceives as an illustration of weakness becomes our opportunity to help them develop strength.

Crisis Model for Understanding the Circular Nature of Classroom Conflict

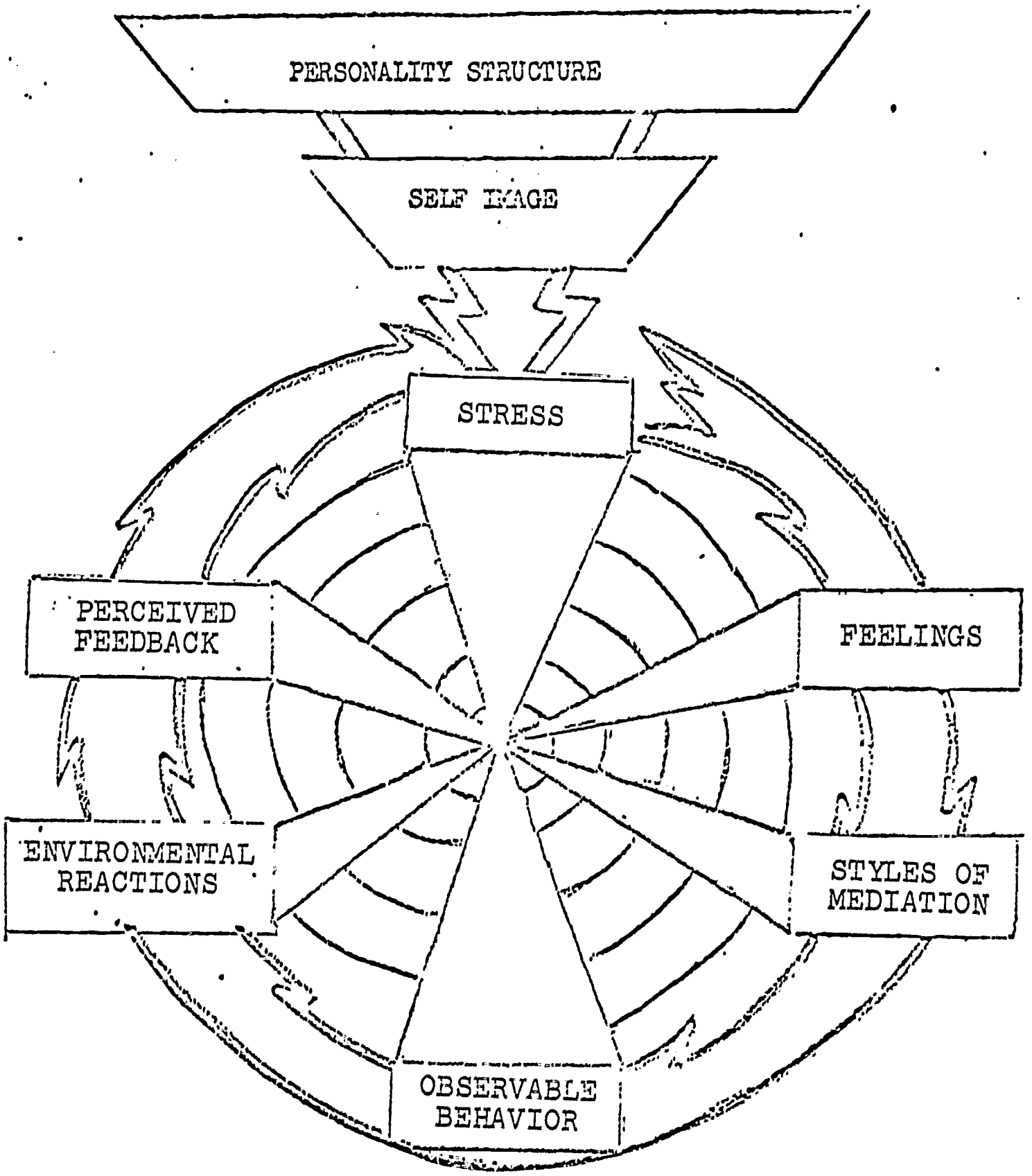
Interpersonal transactions between two or more people seem to follow a circular process in which the attitudes, intentions and behavior of the first person influence and are influenced by the attitudes, intentions and behavior of the significant others in the environment. During stressful incidents, the circular process can become a vicious cycle, creating additional problems for the child that become even more difficult for him to manage successfully. In other words, the negative interplay between a child and his school environment makes it extremely difficult to interrupt the vicious cycle once it begins its circle of conflict. For example, most behavior by children in conflict is organized to protect themselves from experiencing painful feelings and events; and most feedback from the school environment, unfortunately, supports their self fulfilling prophecy that it is important not to change if one is to survive in a hostile or impersonal world.

To describe and understand the circular nature of interpersonal behavior, we have developed the following model (shown in Figure 1).

Recognizing that all models have limitations and that this one in particular sins on the side of simplicity, we believe that it is a useful approach to understanding problem behavior and in developing techniques of intervention to stop this vicious cycle. Figure 1 describes the Pupil's Conflict Cycle and the seven sequential steps that perpetuate it:

Figure 1

THE PUPIL'S CONFLICT CYCLE



I. Self Concept

A child's self-concept consists of his collected views of himself or the kind of person that he feels he is, with all of his values, beliefs, and images--whether he thinks himself bright or dull, mature or infantile, healthy or sick, friendly or fearful, attractice or unattractive, verbal or nonverbal, coordinated or uncoordinated, etc. What a child believes about himself frequently is more important in determining his behavior that is any list of objective facts about him.

The self-concept is developed largely from the behavioral feedback a child has received from others throughout his life. Over a period of time, the self-concept becomes relatively stable and the child's life style emerges--that is, his unique way of perceiving, feeling, thinking, and responding to stress in his phenomenological world. The life styles of many children are highly sensitive to any interpersonal cues that relate to feelings of rejection, sexuality, trust, aggression, dependence, or separation. This highly selective way of perceiving the world usually triggers off a characteristic response to stress, such as anger, avoidance, apathy, or approval.

II. Stress

Stress is a subjective reaction to external conditions that are real, anticipated, or imagined and that cause a physiological and/or psychological arousal of discomfort. Four different types of precipitating events have been identified as causes of varying degress of stress:

1. physical stress--for example, lack of food, water, sleep, elimination, or activity
2. psychological stress--for example, situations that lead to personal threats, acts of rejection, severe conditions of competition, boredom, conflict between two positive or negative alternatives, and unrealistic aspirations and standards
3. reality stress or unplanned events--for example, losing or breaking objects, being unavoidably delayed, having an accident, experiencing a traumatic event or a personal disappointment
4. developmental stress--for example, meeting new people, going to new places, separating from friends and settings, taking physical and academic examinations, being responsible for one's behavior at an appropriate developmental level.

Factors influencing the impact of stress on the self-concept are the duration, frequency, intensity, and multiplicity of stress. For example, stress that is related to lack of sleep is different from stress that is experienced when one simultaneously lacks sleep, is chastised by the teacher, tears his coat on a nail, and fails a math exam.

III. Feelings: Affective States of Stress

Any precipitating event causing stress in a child also elicits an appropriate, affective state or emotional feeling. These feelings are natural, necessary, and vital to the well-being of the individual. For example, it is healthy to feel anger when one is extremely frustrated, or cruelly discriminated against. It is healthy to experience fear when some one threatens to cause you physical pain. It is healthy to experience sadness when someone you love dies or moves away. It is appropriate to feel guilt when you are behaving in a way that is unacceptable and inappropriate to you. It is healthy to experience anxiety when you are anticipating a new experience or task. It also is healthy to feel joy and elation when you love someone. The existence and importance of these feelings are incontestable. The question is, how are they managed? Or, more realistically, how are they expressed or mediated?

IV. Styles of Mediating Stress

Three alternatives exist for mediating the affective states of stress. They are direct, primitive manifestation or expression of feeling in behavior; disguised expression of feelings in behavior; and coping behavior.

Direct, Primitive Manifestation or Expression of Feelings in Behavior

The physiological conditions of stress prepare the body to protect itself from fearful situations or to move toward conforting situations or persons. However, the socialization process of our society punished children who express aggression physically, shame those who run away from fearful situations, and tease those who show an abundance of affection. Unfortunately, in many school situations, the direct primitive expression of feelings toward, away from, or against frustrating situations or persons will create additional problems and complicate one's ability to cope with the original situations.

Disguised Expression of Feeling in Behavior

Defense mechanisms are psychological processes by which a person protects himself from feelings and situations that are unacceptable or overwhelming to him. While there is little agreement on the names and definitions of defense mechanisms or on a classification system representing them, there is consensus that defense mechanisms are learned responses to painful feelings. When selected defenses are used by an individual as his characteristic way of handling stress, he frequently succeeds in psychologically denying the real source of stress, tying up psychic energy, and causing additional problems in his environment.

There are six most common types of defense mechanisms:

1. Rationalization is a process by which a person explains his motives and behavior by offering logical and/or socially approved reasons in order to maintain a sense of self-worth and to avoid additional pain. Forgetting one's assignment, not studying because the course is a drag, or saying that grades don't mean anything anyway are examples of this mechanisms.
2. Projection is a process by which a person attributes to others his unacceptable feelings, thoughts, and impulses. Projection is a highly self-deceptive defense. Collescents who say "he made me do it" or "he really hates me" when he is the one who really hates the other are classical examples of the use of projection.
3. Denial is a process by which a person does not perceive unpleasant emotions and events; his perception is a matter of selective hearing, seeing, and feeling. Denial of reality--"I won't believe it's true" or "I know everyone in the dorm is kind and considerate" is learned very early in life.
4. Displacement is a process by which one transfers the unexpressed anger or hostility he has toward one person to another person who is a psychologically safer object for anger. In other words, if a collescent is angry at his parents, he finds it easier to displace this anger on his faculty advisor or on his roommate.
5. Regression is a process by which a person returns to an earlier style of behavior in order to avoid the present impact of stress. Collescents who act irresponsibly, use baby talk, or have infantile temper tantrums are behaving in a regressed manner.
6. Withdrawal is a process by which the individual avoids the feelings of stress by daydreaming about more pleasant solutions to life or by seeing himself as a suffering hero who will be vindicated sometime in the future.

Coping Behavior

The third alternative for mediating the affective states of stress is coping behavior. Since coping behavior or finding appropriate ways of accepting and/or mastering the stress initiated by an incident is successful in interrupting circular and unproductive interaction between the child and his environment, it is the goal of this crisis model.

V. Observable Behavior

When collescents mediate their feelings of stress by direct expression or with defense mechanisms, they usually create additional problems for themselves in the environment. For example, behavior such as hitting, running away, becoming ill, stealing, denying, teasing, lying provoking, irritating, displacing, drinking, over-eating, fighting, and withdrawing cause a child to have difficulty with adults, peers,

academic learning, and the rules and regulations of the setting. When a child projects his feelings of hostility for his mother to his teacher, an inevitable teacher-child problem develops. Likewise, when a child withdraws, he cannot complete his assignments and will have difficulty with classroom assignments. If this interpretation of behavior is accepted, the problems children cause are not the causes of their problems. In other words, the problems collescents cause are the symptoms of their style of mediating affective states of stress.

VI. Environmental Reaction

One of the truly amazing concepts of interpersonal relations is that a child in conflict can create in others his own feelings or behavior. For example, an aggressive person very quickly brings out counter-aggressive behavior in others. A dependent person causes other people to want to take care of him. A guilty person frequently forces others to behave in a punitive way. A hyperactive person can mek others act impulsively and become hysterical. Likewise, a detached, withdrawn person frequently gets others to ignore and to avoid interpersonal contact with him. And a fearful person gets others to overprotect him because of their fear of hurting him or causing him any more pain. Being unaware of this natural, negative reaction to problem behavior, one automatically reinforces and perpetuates inappropriate behavior in others. The phrase "do unto others as others do unto you" is an accurate but unfortunate psychological concept in negative interaction.

VII. Perceived Environmental Feedback

In most conflict cycles, the feedback a child receives from the environment simply reinforces his original view of himself and his world. For example, when an aggressive child threatens a teacher and the authorities react by expelling him, he takes this counter-aggressive response as evidence that the world is hard and cruel and one must be aggressive in order to survive. Likewise, when a person suffering from feelings of inadequacy does not contribute one world in a group discussion and the members of that group never ask this person to share his thoughts and opinions, the feedback is perceived by the withdrawn person as evidence that he is not important because he is inadequate. This vicious cycle can be developed for each of the environmental responses to the child's symptoms. The outcome, of course, is that the negative feedback increases the child's stress, which creates even more intense feelings in the child that he must defend himself against others in a still more primitive way. In turn, this heightened defense makes the people in the environment more angry and disgusted with the child. They react in more punitive ways, which he perceives as more rejection, which intensifies his stress. The conflict cycle continues until both the collescent and his environment break down and behave in primitive ways.

Let me describe an actual example of a school crisis which was used to demonstrate to classroom teachers the operation of the Pupil's Conflict Cycle. (At this time describe the incident between Ralph, Bob and Sara.)

The advantage of this conflict cycle is that it provides the teacher with the following operational concepts:

1. A child in conflict views the classroom through the eyes of his life history.
2. A child in conflict has ... to be vulnerable to specific school tasks: i.e., competition, separation, etc.
3. Acceptance of positive and negative feelings within and between people are normal, healthy and necessary to a fulfilling life.
4. Each child learns to mediate feelings via direct primitive expression, defense mechanisms, or coping techniques.
5. Under severe stress, a child in conflict will regress from coping techniques to defensive techniques to primitive expressions of feelings.
6. The maladaptive behavior of a child in conflict represents his present solution to stress.
7. A child in conflict creates in others (peers and adults) feelings and behavior which almost always perpetuates his problem.
8. The child's awareness of negative environmental reaction to his behavior serves to justify his conviction that it is not safe to change his view of the world or himself.

Once teachers understand the circular nature of behavior and the extent to which the environment perpetuates the problem, they feel less helpless and guilty and more confortable and confident in dealing with distuptive behavior. This model frequently provides the teacher with enough insight that she can alter her responses and can develop new responses to old problems. Once this happens it is then possible to help teachers develop classroom limits and program modification which develops out of their conviction rather than a supervisor's expectations.

Training for Administration - Where Are We Going?

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In order to speak to the question "Where are we going?" it is necessary for me to take a personalized, and therefore perhaps narrow, look at our field as I see it. I do not think it is necessary to apologize too much for utilizing an idiosyncratic approach because I think that the opinions which I will advance can be supported, at least to a large extent, by readily available and generally accepted facts. If there are those in my audience who feel that I have misperceived these facts, reactions and arguments are certainly most welcome.

When I ask myself "Where are we going?" it seems that I should retrace my own metamorphosis in terms of the way I have perceived Special Education Administration over the past half dozen years, because I think that my own experience in looking at our field may be quite representative of a metamorphosis in our field at large. University training programs dealing with Administration of Special Education received their first major thrust, if not the first breath of life, when specific funds for development of programs and support of fellowships first were granted in 1965 by the Office of Education. The intent of such funding and to a large extent the focus of the resulting university programs was to prepare leadership personnel to be practitioners in the field, serving as either directors, coordinators, or supervisors in agencies or facilities operating special education programs throughout the country. At that time, my own view of our mission, again representative of the field, was to provide a supply of competent practitioners to fill the demands created by the proliferation of special education programs throughout the public schools of the country.

It is my belief that most of us at that time saw our task to be the development of bigger and better programs, providing in both quantity and quality, for the many exceptional children who, according to data from such unimpeachable sources as USOE, were still in need of service. It is my belief that we started with an empire building philosophy, though we were always careful to point out without fear of recrimination, that all our efforts were for the sake of handicapped children and not our own aggrandizement.

It was easy for us to reason that if only 40% of the children in the country needing special education services were receiving them, a more adequate supply of trained leadership personnel would somehow raise the level by stimulating the formation of more programs. Also, it was easy to assume that if programs of service to certain types of handicapped children, for example, the educable retarded, failed to show outstanding success, the provision of a more adequate supply of leadership personnel would somehow enable us to correct whatever deficiencies existed and bring about the necessary qualitative changes as well. But, it is my impression that the goals of our administrative training programs were confined to a rather conventional model of the leadership function.

This point of view was comfortable to me (and I suspect to most of my colleagues) as recently as two or three years ago. It has been since that time that I have been dragged kicking and screaming into the realities of the Twentieth Century. It has been since that time that our consciousness has been fully confronted with the implications of our past practice. The civil rights issues, the court cases revolving around segregation on the basis of a variety of deviations or minority group status, the push for community control and decentralization of power base, the effects of labeling and the issues in urban education have all come into sharp focus for those who would administer special education. While this change process, in my own case, came from a broad complex of inputs, a reasonably accurate summation of what happened would be that Lloyd Dunn (September, 1968) got our attention and then the CCBD resolution (April, 1969) really socked it to us.

What does this mean for administration training programs? For me, it implies certain shifts in emphasis, certain modifications in long-range goals in order to prepare administrative personnel who can rise to the increasingly complex task confronting us.

If society is to invest in the training of personnel to the doctoral level in this field, it would appear that there is an obligation to make sure of a return on that investment. Stated in terms of program goals, the product of such programs should be practitioners whose functioning in society can go beyond that of routine management of existing or expanding programs. Rather, the type of leadership person who should be the product of this training program would become an agent of change and of significant influence on a broad spectrum of service to handicapped persons first, but to larger related concerns as well.

To operationalize this statement of philosophy, the fully prepared administrator would first possess the technical knowledge necessary to adequately serve, supervise, and manage teachers and other direct service personnel who deal with instruction of the handicapped. But secondly, and perhaps more importantly, he would be able to deal effectively with and exert influence on general school administrators, boards of education, local, state and federal legislative and other policy making bodies, in ways which will cause the principles of acceptance of deviancy and the application of rehabilitative intervention to be adopted by other elements of society both within education and without and in both the public and private sector. It would be the expectation that graduates of such a program will be capable of assuming positions at local, regional, state and national levels in both public and private educational institutions and agencies. The training program should have provided them with a theoretical foundation and skilled practice across a wide variety of technical matters pertaining to education of the handicapped, but in addition, the exploration of general educational administration and public administration, politics, and organizational change.

A couple of years ago I heard Jim Gallagher speak of attending a convention of the American Association of School Administrators at Atlantic City and his realization of the thousands of persons who held the power and influence of the nation's local educational systems who he didn't know and who were distressingly unaware of either Jim Gallagher or the issues in education of the handicapped which he represented. I have been giving increasing thought to the significance of his remarks and have been considering ways in which administrators in our field might enhance their relationships and influence upon the mainstream of administration. They now know Jim Gallagher, due to his new role in government, but they know little more about the constituency we represent. With five of my doctoral students, I too attended my first AASA conference last February and had it brought home even more forcefully, the nature of our real task and the long way we have to go. The time we spend talking with each other here at a CEC Convention, enjoyable as it is, will have precious little effect on the tasks we really have to accomplish. Unless we have the skills and seize the opportunity to spend our time and influence on those generalists who hold most of the aces, we will remain both ineffectual at much of anything and grossly negligent in facing a task that needs to be done.

If I believe that influencing generalists is a crucial issue, what are the implications for training? Where and how are the appropriate skills gained? It would seem that a considerable amount of general administrative theory and interactive contact in both formal courses and field experiences with students and professors in general administration would be appropriate. This would be particularly true to the extent that current curriculum in general administration has moved away from such adjectival administration (such as, Problems of the Elementary Principal - Secondary School Administration, etc.) and has moved to a focus on more broad conceptual approaches to the administrative process. Curricula which focus on such issues as Processes of Organizational Change in Education, Politics of Education at State and Federal Levels, Social-Emotional Dynamics of Group and Organizational Behavior, are seen as particularly appropriate for the kind of tasks and functions which the administrator of special education of these and future days must have.

If there is a need for more specific "how to do it" training, it might well be in such things as the gentle art of "Finesse in the care and feeding of the building principal", "Sleight of hand for the federal projects man", "Pressure group manipulation or getting parents to do your toughest jobs for you", and, of course, the most important basic course called "Beating the superintendent at his own game."

In general, the thought I wish to convey is that it is probably appropriate for there to be less and less differentiation between the training of administrators for special education and administrators in general. The major difference, if any, would be that our people must have both specific and general skills, which calls for higher standards of admission to the program, a more rigorous and demanding program, with the logical resultant of a particularly high quality product such as you see at this table.

Perhaps, I should make it more clear as to why I believe that our administrator should be more than just a specialist. This is because I see the scope of our concern as having increasingly greater breadth. I see a gradual change in the concept of exceptionality to include more dimensions of human deviancy. The value system which promotes acceptance and regard for the worth of human individuality, regardless of the intactness of the person's sensory system, the level of his cognitive functioning, or the status of his emotional health, can and should be extended to include such variances as skin color, economic wealth, choice in garments, amount of hair on various parts of the body, and I suppose preferences in sexual behavior. I would suggest that we in special education ought to lead the way in developing better methods of assessing deviance, interacting with it psychosocially in a more realistic open and healthy way, and prescribing truly helpful instructional and therapeutic approaches. I suggest that our role should be one of breaking stereotypes regarding deviance, both in terms of the persons with whom we work and the programs which we have been utilizing. It is our obligation to influence not only the educational establishment, but society at large in the direction of valuing variance above stereotypy.

On our campus at Syracuse I feel that it is somewhat fortuitous that our building for special education and rehabilitation happens to be located on the same corner of the campus where our hippies and other free spirits hang out. We are, therefore, accorded with a living laboratory in human deviancy outside our windows that provides considerable enrichment to what we have going on inside the building. I would maintain that the potentially contributing leadership persons in our field ought not be denied that kind of exposure during his training either. Not so much for the reason that he needs to learn to accept - he probably is pretty high on that scale already - but because he needs practice in being in the middle of a society with a conflicting value system, where a significant part of the opposing forces are those concerned with whether human variation or deviance is to be cherished, grudgingly permitted, or tightly constrained. This is our business.

If we buy the idea of having a responsibility for influencing general administration and society, those of us concerned with personnel training programs can focus on this objective at either of two levels. First, we can endeavor to train our specialists, those graduates who will be identified as trained administrators in special education, so that they will be both interested and skilled in having this kind of influence. Secondly, we could devote time and attention to directly getting at general administrators in the field through such devices as in-service workshops, institutes, etc., held either on campus to which such practitioners would come or by taking the ideas to the field wherever possible. One example of an effort which perhaps focuses at both levels is one which we at Syracuse have been recently concerned with.

In the interest of sensitizing general administrators to some of the major issues in special education, the Bureau for Physically Handicapped within the New York State Department of Education sponsored a three-day Special Study Institute devoted to those purposes. The major vehicle for carrying this out was the Special Education Administration Task Simulation Game which had normally been used for pre-service and in-service work with special education administrators. In this situation, general administrators, primarily building principals, were asked to assume an unfamiliar role, that of the special educator. It was thought that by this kind of active participation in looking at issues through someone else's point of view, a greater appreciation could be gained regarding some changes in program directions that might be needed.

This endeavor appeared to have rather good results. A full report on the experience, including some of the pre and post measures that were taken on the participants in the workshop, will be published under the authorship of Burke and Sage in the journal Simulation and Games in September, 1970. As a result of the apparent promise in this approach, additional workshops of a similar nature are being planned. A five-day workshop sponsored by the State Education Department in Indiana is scheduled for the week of April 27, 1970, and additional projects of a similar nature are in the planning stages elsewhere.

I see this as approaching the objectives on two levels because while on the one hand I am investing my professorial time directly with this in-service work with the generalist administrators in the field, at the same time I am being assisted in the conduct of these institutes by a number of my doctoral students who hopefully having had the experience themselves would be able to utilize the approach when they too are in positions of either administrative responsibility or personnel training.

It would appear that this example demonstrates the broadening of the emphasis within the training program both in terms of the content and the process by which that training program is endeavoring to make its influence felt upon the whole field. This, too, is our business, and this is where we ought to be going.

Nonprofessional Personnel Become Professional Teachers

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I. Review of the Literature

We are a dissatisfied people. We are dissatisfied with aspects of our present educational program, and are attempting to deal in innovative ways with problems that have been refractory to traditional approaches. Our dissatisfaction with ourselves and our efforts is understandable. The problems of modern society cannot be adequately handled by existing professional resources, and there is little reason to believe the heavy demand for professional specialists will decline. While this difficulty might be resolved, in part, from new conceptualizations of educational programs such as computerized instruction or programming, there is immediate need for recruitment and training of nonprofessionals for educational roles.

The philosophy and mechanics of the utilization of nonprofessionals must be considered. The way in which nonprofessionals are utilized must reflect the needs and attributes of a specific setting or program. In that sense, few absolute rights and wrongs can be stated. Volunteers have functioned in schools and a variety of other areas for many years (Reiff and Riessman, 1965). Reference is not made to the one hour a day, or five hours a week volunteer. We are talking about workers with genuine involvement, committment in time, meaningful roles and functions far beyond passing out chalk and scrubbing blackboards.

Does the effectiveness of the nonprofessional come from his intellectual and training attributes, or does it come from his personal characteristics? In the mental health field, research workers (Poser, 1966; Rioch, 1966) have hypothesized that the critical change agents when measuring the effects of therapy showing significant improvement in patients, may well have been the interest, enthusiasm and energy which the naive nonprofessionals brought to the situation rather than the intellective, training, and experiential variables.

Literature in the mental health field provides numerous illustrations of effective utilization of nonprofessionals (Klein, 1967; Nichtern, Donahue, O'Shea, Marans, Curtis, and Brody, 1964; Reiff and Riessman, 1965; Rioch, 1967; Wahler, Winkel, Peterson, and Morrison, 1965). The field of education is drawing on nonprofessionals to expand professional services (Mallory, 1968), to work with children with learning disabilities as tutors (Jones, 1969), to aid the disadvantaged (Barter, 1968), and in a variety of other situations (Boyles, 1967; Goulet, 1967; and Woodbury, 1957). The school, with its multi-faceted functions, might effectively use nonprofessionals in a pivotal role in its systematic approach to children, to families, and to parents.

II. Roles and Functions

How nonprofessionals are utilized rests largely on the goals and aims seen as primary, and the programs devised to implement these objectives. The delegation of routine, expendable skills to nonprofessionals is often seen as an aid toward a more efficient total operation for professionals. However, the need to free the time of highly trained professionals may be less important than the issue of how that time is utilized. One investigator (Rioch, 1967) selected a highly valued function of a professional and successfully trained middle-aged housewives to do this work. Other workers (Cytryn and Uihlein, 1965) found high school students, functioning in instructional and recreational capacities with young mental defectives, capable of making important contributions to the development of these youngsters. Nonprofessionals may serve as group leaders, counselors, and operant conditioners.

Still other roles and functions will be found for the nonprofessional, roles which do not merely break down the old, clearly specified functions, but roles which carve out new functions. This is a time of ferment and exploration, the yeast of which is a recognition of the potential of this resource.

III Selection, Training, and Supervision

It seems likely that it will be found that the range of people who can be used effectively to perform significant functions as nonprofessionals in professional fields is exceedingly broad. The diversity of recruits in existing programs spans basic dimensions of individual differences such as age, sex, education, socioeconomic level, and social status. Only minimal knowledge and vague notions of what these people can do is available.

Recruitment procedures have employed a variety of tactics and strategems. Many programs are largely self-selecting or self-screening. Some programs use individual or group screening techniques, based on a set of criteria thought to be relevant predictors of subsequent performance. Attributes might include a concern about neighborhood problems, willingness to communicate across class lines, capacity to learn and to develop. For classroom work, consideration emphasis may be placed on personal warmth, a relatively successful child-rearing history, an interest in working with young children, and a non-crusader orientation toward the school or children.

Even when selection criteria are established, they generally reflect best guesses. Establishing positive selection criteria is often associated with heavy training investment, with the aim of maximizing hoped-for outcomes. Use of minimal criteria reflects greater acceptance of our present limited understanding of criteria for ultimate success, and consequently, a more open approach to solution of criteria.

The nonprofessionals may be men or women. In the beyond-college category, they are generally, but not always, women. The Director of the Women's Bureau of the U.S. Department of Labor (Koontz, 1970) recently urged the Southeastern Regional Conference of the State Commission on the Status of Women to work with every variety of voluntary organizations, even those "that might seem radical at this time." There would probably be only a small number of men who would have the inclination, the talent, and the financial security to do this. There are many mature women who either did not attend college or did not finish college who are as alert and as well educated in a general sense as their contemporaries who did.

Training of the nonprofessional raises two issues. First, should there be training? Second, if there is, what should be its form and content? If the nonprofessional is someone who should be taught to take over a specific aspect of the professional's activities, then a period of concrete training directed toward achieving mastery of those functions is clearly indicated. Such training may run from six weeks to a year or more.

If, however, personal and motivational qualities are more important than specific skills, then less importance will be attached to the need for training. From such a viewpoint, the nonprofessionals are seen as individuals who by personality, life experience, or common knowledge have a good deal to offer others.

As with length of training, both the form and content of training programs must be determined by the attributes of the group being trained and by their contemplated roles. The characteristic training needs and styles of a given group, not our own preconceived notions and styles should shape the training program. With some groups, it may be that a job first, training next approach is the only feasible one (Klein, 1967; Reiff and Riessman, 1965). Some workers (Reiff and Riessman, 1965) have suggested continuous on-the-job training starting from the very beginning, emphasizing activity rather than a lecture approach, building group solidarity, provision for informal individual supervision, a down-to-earth teaching style, and helping workers to be aware of their personal styles and to feel free to utilize them.

Our approach is trial and error. We need to train people for training. We need to help teachers utilize nonprofessionals most effectively and more effectively.

IV. Special Assets of the Nonprofessional

It is quite possible that the nonprofessional may make special, unique contributions which cannot be made by the professional. If a critical factor underlying differences between groups of children seen by nonprofessionals and professionals is energy, enthusiasm, and involvement of the nonprofessional, it must be asked whether these characteristics are basic distinguishing attributes of the nonprofessional, or whether they are characteristics of most human beings as they become involved in exciting or challenging new experiences for the first time. It is possible that success rates of nonprofessionals taper off after a few years. An analogy may be drawn to student teachers finally experiencing the excitement of the classroom.

The nonprofessional, and, parenthetically, the student teacher, may bring fresh ideas and points of view, flexible attitudes, and new methods into a classroom. The nonprofessional is not bogged down by absolute knowledge and air of certainty characteristic of the professional. The nonprofessional may stumble on new ways of approaching problems, and new instructional methods, or create new educational materials through exploratory procedures which professionals might have rejected as foolish or unsophisticated.

A special benefit which accrues to the nonprofessional is that he is in a position to be less formal and less rigid than the professional. The nonprofessional is in a position to cut through certain role-distance problems inherent in many middle-class based situations where inconsistent life styles and expectancies exist. Related to this factor is the point that patients and/or students cooperate more readily with people who they feel are closer to them in the social hierarchy.

The key to a helpful or facilitating relationship for some individuals will be in an authority relationship, while for others, it will be in a peer relationship. In the former case, the professional has the advantages. In the latter, the nonprofessional may have the advantage.

V. Evaluation of Nonprofessionals

A. Changes in the Worker

Through experience gained, it is reasonable to expect a constructive personal change in the nonprofessional. For some, such involvement may increase the likelihood of continuing their education in the field in which they have been working. For the middle-aged housewife whose children have grown up, the act of helping others, the sense of purpose may be a significant contribution to their personal lives. There is value in having an investment in, and responsibility for a job. There is satisfaction derived from the acquisition of new skills. The increase in status and prestige derived from a new role is of personal significance. A decent and meaningful job may be the best of all therapies for some individuals.

B. The Community

A set of social problems is attacked through the help of the nonprofessional. More effective workers are created, establishing a vital force for the resolution of other social problems. Here is a positive pyramidal or multiplicative potential, not an oppressive vicious circle.

The groups of people with whom we are concerned are drawn from within the community in the majority of cases, and the community has ample opportunity to evaluate their performance. Their focus touches on much of the everyday behavior of a community. Conversely, they are in a position to evaluate the community, its programs and its efforts, including the schools. Nonprofessionals, as well as professionals, may find themselves involved in two primary institutions of society - the family and the school. Both of these institutions exert profound and enduring influence on the child. The use of nonprofessionals in both institutions must not be overlooked, and, in fact, should be investigated.

In addition to the personal satisfaction derived from the contribution they are making directly to children, the nonprofessionals acquire a certain amount of status in the community because of their generosity. Also, special programs frequently have a catalytic impact on the community, both within and beyond the schools. Such programs spur other groups on to action and involvement. The community develops an awareness and understanding. It feels some pride in its accomplishments. It demonstrates that great strides can be taken by determined communities.

C. The Professional Teachers

When professionals treat them as professionals, the non-professionals undoubtedly profit in terms of developing keener insights into the problems of the children with whom they work. Although initially untrained, they acquire a good deal of training, some in an unorganized way, which, when coupled with their own assets, greatly increases their effectiveness. Teachers develop an awareness and skill in identifying children who are in need of more help. Most important of all, professional educators develop a wholesome attitude toward the work of the nonprofessional, toward the need for specialized or individualized help, and toward an understanding of children themselves, accepting them as they are, and adapting to their needs.

D. The Children -- The Ultimate Criteria

The children themselves, while not caught up in the details of a project are, nonetheless, developing an awareness that something is happening. They see and hear about changes occurring within and among others and perhaps even within themselves.

On an objective basis, it is feasible to evaluate the influence of nonprofessionals by testing the academic progress of children. Emotional control can be similarly measured in as much as such control will effect academic work. The child's ability to maintain control in a regular classroom environment is a measure of his successful adjustment.

A subjective evaluation, yet tantamount in importance to objective measures, is the estimation of the child's happiness, adjustment, and attitude toward the nonprofessional, and to school in general.

E. Potential Problems

Despite our efforts and willingness to evaluate and examine the work of the nonprofessional, many of our judgments are merely impressions. We have not been in business long enough, nor have we systematically attempted to evaluate contributions made. This may be true because as professionals we have never assigned to the nonprofessional the status and import they deserve, and have not turned our attention to proper evaluation of this group.

Projection of one's own difficulties by the unsophisticated worker is a potential danger. Additionally, and perhaps ironically, one of the major problems facing the nonprofessional movement is the perception by the professionals of the danger of encroachment on their terrain. If professionals have given sweat, blood, and tears to achieve their position, there is little consolation in having a six week wonder assume their duties. Those responsible for training the nonprofessionals cannot assume the posture of Pinel loosening the chains of patients (Sanders, 1967). The limits of the nonprofessional's services must be stated.

It is conceivable that personnel with limited training will present themselves to the public as fully trained professionals. This is especially true when the demand is great and the supply of professionals is limited.

Professionals may verbalize concern about damage done by lack of understanding and qualification, and danger of doing irreparable harm to another person. However, it may be that still greater harm is being done everyday by our inability to offer any help to individuals who need it. It is clear that reservations can be formulated on intellectual grounds and in good faith.

Practical problems exist. To what level of specificity should the nonprofessional be trained? Should the training emphasize the agency needs that have to be met? Should the training emphasize the development of the trainee? There seems to have been an inclination toward the former, since many training programs have developed in specific situations.

Another problem, or potential problem, which must be considered is the striving for upward mobility and further education which some nonprofessionals have. This is a perfectly natural consequence of satisfaction, success, and recognition of one potential.

VI. An Operational Project -- One Model

A. General Description

The project to be described is part of a larger project funded under Title III of the Elementary and Secondary Education Act for psychological services in a relatively isolated rural community. This speaker was a consultant to the project, particularly in relation to the educational aspects of the program. In addition she was directly responsible for the majority of the training program for the nonprofessional personnel who played a pivotal role in the project.

The educational aspect of the project which involved non-professionals, intended to provide supplementary instruction beyond normal class instruction for children who fell at the lower end of the scale on standardized intelligence and achievement tests. Selected children in grades one to four comprised the experimental group.

B. Role and Function of Nonprofessionals

Having identified children who needed some type of supplementary instruction, the question of how to provide such instruction needed to be answered. Because of the relatively isolated geographic location, certified teachers were unavailable, and nonprofessional personnel were seen as a corps of people to fill the need. These people would be assigned to schools in the county, provided with instructional space to carry out their major function -- the supplementary instruction of children in grades one through four who were identified as below the norm in their class.

C. Selection, Training, and Supervision

Selection. Personnel from the community were solicited. Applicants for the six instructional positions were primarily nominees of school principals. Screening devices used by the director of the project were (1) a personal interview after which the applicant was subjectively rated on an A through D scale on interest in children, clarity of speech patterns, and general personal appearance; (2) Army General Classification Test to determine general ability to grasp ideas, think clearly and quickly, and to indicate intellectual level; and (3) California Test of Personality to identify crucial personality deviations that would preclude successful performance. Recruitment was relatively simple. Selection was much more difficult.

Based on the above screening, six special instructional personnel (SIP) were selected. A brief description is given.

Mrs. A. High school graduate, 24 years old, wife of a local high high school teacher, daughter of a military service family, one child

Miss B. One semester of college, 19 years old, local file clerk, native of the county

Mrs. C. High school graduate, 39 years old, flower arranger at a local florist, divorced, native of the state, 2 children

Mr. D. Two and one-half years of college, 44 years old, pastor of a small local church, furniture store salesman, native of the area

Mrs. E. Two years of high school, 45 years old, widow, worked in a local pre-school nursery for two years, native of the state

Mrs. F. High school graduate, 41 years old, two children, native of the mid-west, in local area less than one year

Training. Differences in the number of years of schooling were quite irrelevant. The project director and the supervisor responsible for training and instruction of the SIP conducted a three-day workshop for the SIP prior to their contact with the children. This included a complete orientation to the project in general and to the special program in particular. Introduction to learning characteristics of children, and a variety of instructional procedures were discussed and demonstrated. Special materials for classroom use were studied, and many materials were created and prepared. The SIP spent two days in the regular classrooms to familiarize themselves with the students as well as to observe some of the techniques used by professional teachers. Since the SIP were to be primarily practicioners, it seemed obvious that the training should be practical. There was little stress on theory, except as it aided in understanding the children, their academic disability, or the instructional procedure.

The training program was designed to give SIP a basic repertoire of teaching ideas, instructional materials, and techniques. Further, it was designed to provide a rationale and a philosophy which would be basic to the conduct of the instructional program which they were to expedite. The third objective was to prepare SIP to guide a special instructional program in language arts for children outside of their regular classroom, which would supplement that program.

Ultimately, it was hoped that SIP could be trained to function as professional teachers; that through their efforts, at least in part, the instructional level and academic abilities of educationally lagging children could be raised.

Supervision. Workshop sessions were held once a week throughout the first school year of the project which was in reality only about three months. These included individual meetings in the classrooms as well as joint meetings of the six SIP. The supervisor also visited and observed the SIP at work in their classrooms.

In addition to the University supervisor, the project director and University students in school psychology guided and aided the SIP on a daily basis.

The SIP were included in semi-monthly in-service training sessions that were conducted for teachers in the psychological services project schools. In these meetings, as well as in daily encounters, every effort was made to foster formal and informal communication and exchange of information between the SIP and the regular teachers. They attended in-state and out-of-state professional meetings and workshops.

It was our philosophy that the SIP were mature people, with enough know-how to do the task they were given; they would make some mistakes, but could be rescued if necessary. We were correct.

D. The Work of the Nonprofessionals

The major function of the SIP was to supplement the instruction of the regular classroom teacher. The first year of the program (3 months), their thrust was toward improvement in the broad area of language arts, reading readiness, reading, spelling, and writing. The second year of the program, their efforts were broadened to include arithmetic, and other academic areas, as deemed appropriate by them and by the regular teacher. Basically, the narrower effort in the first year seemed appropriate because it was more reasonable to provide training in one area, and even that was a major task. Language arts was the target area since it was felt to be basic to most other instruction and the area in which the children were most deficient.

The children in the special instructional groups were those with PMA ratio IQs of 80 or less. Teachers were also asked to select those children who they considered most in need of such instruction. Selected children were divided into groups of eight or nine and scheduled into the special class for two thirty-minute periods each day. This procedure gave them contact and communication with their regular class peers, a fact considered to be important for both their social and intellectual development. All special children were given an achievement test prior to instruction by the SIP to provide an academic base measure for instruction and for later evaluation. None of the children in the project were taken from established special education classes for educable mentally retarded children.

E. Special Assets of Nonprofessionals

The six SIP are enthusiastic and involved with children, without the crusader attitude. They recognize their limitations, but also recognize the contribution they are able to make to the instructional program of children. They recognize the magnitude of the task a regular class teacher faces in meeting the diversity of needs of the children in her class.

Rather than having the crusader attitude, the SIP have a pioneering attitude. They are willing to venture on ground which is new to them, to explore new organizational plans, to flex when the space gets tight. They operate on tremendous faith -- faith in the professionals who give suggestions, faith in their supervisors who help them see their strengths as well as their weaknesses, and faith in themselves.

F. Evaluation of the Nonprofessional

The project staff did not suffer under the illusion that with the relatively little training provided fully equipped professionals could be turned out. The idea was that mature people could be trained in a short period of time to deal effectively with a selected population.

It is felt that this has been done. Nonprofessionals are prepared to step into a classroom, if necessary, and do a commendable piece of work. A desire to learn more has been stimulated. Some may be lost to academic institutions for further preparation toward becoming professionals.

The SIP give evidence of commitment to their work. They have a strong feeling of group identity. Their training is based on practice and experience. They had to learn a skill and create a niche for themselves in a new setting. They had to learn a new language.

Evaluation by other professionals has been entirely subjective. If the cooperative spirit is one criterion, and such an argument would be cogent, the SIP have met the test. Multitudinous encounters have been reported in which the professional consulted with the non-professional for information, ideas, or opinion.

There is another form of evaluation of the effectiveness of the SIP. This is in measurement of the psychological and academic factors of the children.

G. Results

Psychological aspects. Based on pre- and posttest PMA Ratio IQ scores gathered at the beginning and end of the academic year, children taught by SIP made significantly greater gain scores than children not receiving special instruction after one year. Children who received psychological services but no special instruction make significantly greater gains than children who received no psychological services and no special instruction.

On a more subjective basis, the enthusiasm and attitude of the children receiving the special instruction is almost entirely positive and in itself exciting. It may be that the attitudinal, motivational, and inspirational values accrued by the children in their attendance at school and through the special instruction will outweigh other gains.

Academic gains of children. Pretest and posttest raw score gains of children receiving special instruction were significantly greater than gains made by regular class children on the Metropolitan Achievement Test. Such differences were found despite the fact that the special children received only three months of instruction. In addition, these were the children whose measured IQ was below 80 and whose academic gains would not generally be expected to equal those of the more normal population.

When the mean Metropolitan scores were adjusted in terms of differences between initial PMA ratio IQs, many of the striking differences in scores were diminished. In grades 2, 3, 4, thus excluding grade 1, mean gains on the reading subtest were significantly higher for the special groups than for the regular groups.

A full report of the data gathered from this effort, from a special summer school program, and from other aspects of this program will be available at the termination of the project in 1971.

H. Summary

The project described has demonstrated that a college degree is not necessarily a prerequisite for teachers who have participated in in-service programs and who instruct small groups of children. With intensive preservice and inservice training they are active and full participants in the instructional process. These SIP were trained, not as nonprofessionals, but as professionals. They were exposed to theory and practice which were to serve as guidelines for them to find their own direction. They had enough flexibility and had to have enough creativity to tailor their program to their own ideas and philosophy. It was not possible, and perhaps not even desirable, to give them specificity in all the tasks and problems they would encounter.

The program has made drastic and significant changes in the lives of many children, but also in the lives of the men and women involved. The nonprofessionals had skills, latent and undeveloped. They have found a professional outlet. Following a very brief instructional period, some academic gains appear to be evident. There has been no objective, precise measurement of the attitudes of the professionals, the SIP, or the children. However, a cooperative, exciting fervor permeates the environs of the schools in the project. There is a reason to look at modifications in present professional training programs. Some new doors have been opened, but none have been closed. As researchers, we must investigate what is on the other side. In the venture described here, we will continue to do so.

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The Training of Professionals and Para-professionals in Early Intervention with Atypical Infants

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An impressive body of research with the psychology of cognition and perception as well as in neurophysiology of the brain, has made it clear that exercise of the mental function early in life is essential to its later development. The human being is born with less than one-third of the adult brain capacity, and there is tremendous growth of the cortex and, indeed, the whole central nervous system after birth. The way in which the cortex and the central nervous system develop is directly affected by the environment and the early experiences in that environment. Hence, mental development depends physiologically largely on a broad diversity of experiences in very early childhood. "We know now", says Professor Jerome Bruner, Director of the Harvard University Center for Cognitive Studies, "that the early challenge of problems to be mastered, or stresses to be overcome, are the precondition of attaining some measure of our full potentiality as human beings. The child is the father to the man in a manner that may be irreversibly one-directional, for to make up for a bland impoverishment of experience early in life may be too great an obstacle for most organisms." For human beings the mind and the senses it mediates must be stimulated if they are not to atrophy. As Bruner puts it, "supply creates its own demand"; in Jean Piaget's words, "the more a child has seen and heard, the more he wants to see and hear".

Certainly for the infant who is born less than perfect early intervention is imperative; for the organism has already suffered insult and without immediate and intense aid to the infant and his parents, irreversibility may become inevitable.

Seal Bluff Center, located in Concord, California, and Hilltop Center, in Richmond, California, funded by Contra Costa County Community Mental Health and Contra Costa County Medical, serve the atypical infant (0 - 3) and his parents who reside within the County. There are eleven infants attending each Center, with ten on the waiting list at both Centers. The eleven children at each Center attend seven hours daily, five days a week. Transportation is furnished by mini-buses. For those infants who are not ready to participate in the daily program, a Home Visitor is provided. In addition, these infants are brought weekly to the Center out-patient clinic for physical and occupational therapy, if needed, or for a medical check-up, or for training sessions with the parents. Referrals come from private pediatricians, social workers, public health nurses, the Contra Costa County Hospital, Contra Costa County Aid to Retarded Children, and lay citizens who know of this service. The Centers have received referrals of one-day old infants, and one mother insisted upon coming to the Center immediately from the hospital with her four-day old Down's baby girl!

The infants represent a wide variety of handicapping conditions; autism, Down's syndrome and Hurler's syndrome - for example, babies with "failure to thrive" syndrome, battered babies, babies who have suffered from severe malnutrition, brain damage and central nervous system disorders, blind, deaf, Rubella, and cerebral palsy.

The staff who serve these infants and their parents include a Medical Director, who is a psychiatrist, intensely involved with the infants' diagnosis and treatment at the Center. All admisistrative functions are handled by an Administrator, thus freeing the Medical Director to actually serve the infants, parents, and staff. There is a Physical Therapy Department, including a Physical Therapist, Occupational Therapist and Recreational Therapist, and six Therapy assistants. This department also serves the out-patient clinic and the Development Center for Handicapped Minors, as well as the Adult Center. There is a Medical Social Worker who works directly with the infants in their daily program, with the Staff serving these infants, and with the parents. If a parent needs extensive counselling, a psychiatric social worker is provided by the Centers. There is one pediatrician assigned to each Center, responsible solely to the infant programs, as well as a psychologist also assigned to infants at both Centers. A language specialist is also assigned to both Centers. In addition, there is an educational director, serving the infants as well as the children in the Development Center for Handicapped Minors, which serves severely multi-handicapped children from three years to twenty-one years.

The seven-hour daily program, or nursery, is directed by a registered nurse and two licensed vocational nurses, volunteers, college students and staff from the Physical Therapy Department, as well as by the professional staff. All professional staff involved with the infant program are required to spend time in the "nursery" with the infants, interacting with them, as well as observing them in their daily setting. It is felt that no professional person can work effectively with parents or with program goals unless he participates in the nursery program.

The Home Visitation Program involves the training of the Home Visitors who are volunteers or community aids, to work with infants in the home.

These two Centers have pioneered in the field of early intervention with atypical infants, as there were no guidelines and no similar programs to which we could refer. At the present writing, the Centers have been in operation sixteen months; thus we shall attempt to share with you our experiences in training the personnel involved in the program for atypical infants and their parents.

Time does not permit detailed rationals for each discipline's contribution to the training of professionals and para-professionals in early intervention. We have relied heavily on the work done by Bruner, Hebb, Erikson, Piaget, and Hunt in developing our over-all philosophical framework. The content of the curriculum in the nursery for the atypical infant reflects these influences.

The key personnel in the atypical infant program, we feel, are those persons working daily with the infants in the nursery. There is only one "professional" person and two licensed vocational nurses at each nursery. The fact that the nursery staff all have nursing background stems from the funding agencies. These persons were available from the County Hospital Staff and volunteered for the program. Each was carefully screened for flexibility, ability to nurture infants,

and for high energy level and motivation. The fact that they all had nursing training and hospital infant-care experience has been helpful but not essential.

In addition, none of the professional staff had had any experience with atypical infants (0 - 3) in a nursery setting, with the exception of the Educational Director who had had experience programming handicapped infants, and children up to age five in daily sessions. She had trained volunteers, Public Health Nurses, and Social Workers to work in the homes with atypical infants and their parents. Thus these past sixteen months truly represent on-going, in-service training for all professional and para-professionals involved.

The "team" approach is absolutely essential in any program of early intervention with atypical infants, both in developing the daily program and in the training of professionals and para-professionals. Indeed, a real exchange of knowledge and insight occurs, so that each discipline is broadened to include theories, techniques and methods of all other disciplines.

PHYSICAL THERAPY

According to Piaget, the infant from birth to age two is in the sensorimotor phase of development. The baby is dependent upon his body for self-expression and communication. In Piagetion terminology, sensorimotor indicates the infant's creation of a practical world entirely linked to his desires for physical satisfaction within his immediate sensory experience. Sensorimotor development can be explained in terms of Piaget's six succesive stages of organization:

1. Use of reflexes
2. Primary circulor reactions
3. Secondary circulor reactions
4. Coordination of secondary schemata and its application to new situations
5. Tertiary circulor reactions
6. The invention of new means through mental combinations

Thus one can see the importance of physical therapy in a setting such as ours. It is the responsibility of the physical therapist to evaluate the infant's motor development and to initiate a program of physical therapy for each that can be carried on by the parents, the home visitor and the physical therapy and nursery staff under the physical therapist's supervision. This program may include the use of the Bobath ball and the Bobath rolls for developing the protective and righting reflexes in the infant. It may include massage and gentle exercise of the limbs. The professional and para-professional is taught how to swing a baby in a blanket, so necessary to stimulate the vistibulars in the mid-ear which control balance. The physical therapist

teaches the professional and para-profassional the develepal motor stages through which all infants pass.

The professional and para-professional are trained in activities with infants to aid them in achieving these levels. All persons involved in the training must work with infants under the physical therapist's supervision, as many activities, if not done correctly, are of no value and can actually harm the infant. The physical therapist emphasises the importance of developing the infant's body image as soon as possible. The professional and para-professional is taught how to tactilely stimulate these babies before mirrors, pointing out their eyes, ears, nose, etc., and rubbing their limbs and bodies with a rough texture and a smooth texture in order to assist the babies to develop an awareness of self. The physical therapist teaches the professional and para-professional range of motion and the importance of developing in these infants a desire tc initiate movement, and later to imitate movement. She helps them to assess the babies' muscle and postural tone by using the Bobath balls and rolls. Tactile stimulation and exercises are used to further develop tone and strengthen muscle. She emphasizes to the professional and para-professional and importance of the balance of sensory stimulation which will depend upon the "style" of the infants. Some infants who are hypotonic may need much more stimulation than the hyperactive infant. The hyperirritable infant may need a great deal of protection from stimulation.

The Physical Therapist's goal is to train persons other than physical therapists to work with the atypical infant using specific skills and techniques geared to the developmental level of the child. In addition, the physical therapy department teaches all professionals and para-professionals to administer the Denver Development Scale, the evaluation tool used by the Department. It has proved invaluable because of the simplicity of administration and its validity. It is an excellent training tool in terms of sensitizing the professional and para-professional to the development levels of very young children, thereby encouraging an infant to the next level of development.

OCCUPATIONAL THERAPY

There is a great deal of overlapping in the contributions made by occupational therapy, physical therapy, psychology, and education; therefore, we will emphasize here the unique contribution in the areas of feeding, toileting, and dressing made by the occupational therapist. The occupational therapist makes a careful and detailed analysis of the infant's feeding reflexes and patterns. She trains the professional and para-professional to observe carefully the infant's sucking and swallowing reflexes. She trains the professional and para-professional in the Rood methods of icing and brushing to elicit these reflexes in the babies. She also trains them in the proper positioning of infants in feeding; when to introduce solids (usually small bits of cooked hamburger are embedded in their baby food to accustom them to the 'feel' of solids. Babies usually resist solids because it is the texture they do no like); when to begin introducing milk from the cup; when to encourage the cessation of bottle feeding; how to help with chewing problems and with tongue exercises (if there is partial paralysis of the tongue, or if tongue movement is difficult, as with the

Down's babies). She teaches the professional and para-professional how to teach the babies to hold the spoon, how to get the spoon to the mouth, and how to scoop food (using a rim attachment to the plate). She instructs them in techniques to use with the resistive feeder. The professional and para-professionals participate in training by putting peanut butter in their own mouths and concentrating on how their tongues and lips move while eating it. The occupational therapist puts honey on their lips - or lemon - to elicit mouth closure. Also all the participants must brush and ice one another in order to experience the sensations as well as learn the proper Rood method.

Since the atypical infant has no Dr. Spock and no specific timetable for "atypical development", we have no guidelines for when to begin toilet training with these infants. Also, toilet training is the number one worry of parents as their baby matures. If one of our goals is to prepare these infants for eventual placement in special classes in the public schools, they must be toilet trained. We have, therefore, adopted the policy of placing each baby on his own potty chair with his own colored mat (for color cue) as soon as we know he can retain urine in the bladder for two hours. We chart each child and discover his unique timetable and place him on his potty chair according to his time schedule. We have had excellent results particularly with the Down's babies, for by the time they "graduate" at age three, all of them have been remaining dry during their seven hours at the Center. The occupational therapist works with professionals and para-professionals in the toileting aspects and the Home Visitor has been exceedingly valuable in supporting parents in setting up toileting programs at home for infants waiting for admission into the Center. Cheerios, songs, hugs and kisses are given each time the baby is placed on the potty seat, regardless of the results.

The importance of grooming is emphasized by the occupational therapists. Each infant, once he acquires teeth, has the electric toothbrushing twice daily; each baby has his own comb with his name on it and his hair is acturally combed or brushed before the mirror to help with self image. Many of the babies who have dry skin are creamed and oiled frequently. The occupational therapist emphasizes the need to talk and sing with the babies. The professional and para-professional soon learns in training the importance of relating to the babies while administering to them.

As mentioned earlier, the importance of developing Body Image cannot be over-emphasized. Again, this is covered by the occupational therapist in the entire dressing area. The occupation therapist teaches the professional and para-professional how to help the babies "find" themselves. How can a baby take off his shoe if he does not know where his foot is; his sweater - if he doesn't know he has an arm? The occupational therapist familiarizes the professional and para-professional with the hierarchy of dressing. The baby, for example, can take off his pants before he can put them on. He will first learn about his head; awareness of the extremities comes last. The occupational therapist teaches the professional and para-professional the importance of the mid-line in infants with activities to encourage

the baby to bring both hands to the mid-line to grasp an object, to use both sides of the body, which is critical for any baby who has one-side involvement due to brain damage. The occupational therapist supervises the professional and para-professional in actual dressing and undressing sessions with the infants. Usually the untrained person must be prevented from doing everything for the baby. The occupational therapist demonstrates to the professional and para-professional how these babies learn to find a shoe, a sock, or a sweater, on verbal command, out of a box that may contain many articles of clothing. The occupational therapist continually stresses the importance of developing independent skills in these babies at their level. Too often parents and others keep these atypical infants wholly dependent because it is easier or they feel "sorry" for them. Again, the emphasis is placed on the child's present level of functioning.

PSYCHIATRY AND PSYCHOLOGY

Erikson has stated that mutuality is all important in the mothering process. The baby reinforces the mother's or mother substitute's need to give body comfort, warmth and caring to the infant, just as the mother or mother substitute reinforces the baby's beginning trust in a predicatable world.

He has stated that out of these experiences of mutuality comes the baby's desire to explore the world around him and his increasing ability to respond to the environment. In the training of the professional and the para-professional, the psychiatrist summarizes all the data obtained on each infant, showing the relationship between physiological and developmental problems and the treatment of the baby in the nursery and the home. He emphasizes the emotional needs of infants and some of the factors which may have forced extinction in the development of the infant: for example, the parent's inability to cope with the handicapping condition of their infant either through lack of knowledge, personal disorganization as a result of the crises of having a handicapped infant, or the infant's inability to respond positively to the care provided by the mother. The psychiatrist attempts to sensitize the professional and para-professional to the causes of the infant's problems and to the problems encountered by parents of these infants. He teaches, through lecture and demonstration, the recognition of various syndromes and stresses the characteristics of Down's infants as opposed to brain damaged infants, because they will be handled very differently both in the home and at the Centers. Professionals and para-professionals are in attendance at admission meetings, diagnostic conferences, and case reviews chaired by the psychiatrist. The psychiatrist instructs the professionals and para-professionals in the importance of establishing specific goals for each infant and how to implement these.

The psychologist's main contribution to the training of the professional and para-professional is in the evaluative and assessment process. We have relied heavily upon the work done by Lois Murphy, particularly her vulnerability index. In addition, the following general statement from Ursula Jacobs, child psychologist from San

Francisco Presbyterian Hospital, who has been our consultant from the beginning, will illustrate the value of developmental evaluation of functioning in an on-going program of training of professional and para-professionals:

"Several purposes are served by repeated studies, at intervals, of developmental status. The rate of change in the very young is so rapid, even in children with significant developmental lags, that very acceptable measures of rate of progress are obtainable over a period of 3 months to a year. Knowing the rate of progress makes for more appropriate expectations over time with anticipation of what to expect, and how soon, greater accuracy - therefore minimizing the emotional effects of incongruent expectations and pressures and shaping immediate future planning.

The developmental changes that occur, as a human being matures, follows the same series of changes. Children with atypical status usually develop more slowly and attain certain less advanced ceilings, however. Actually there is more certainty about the rate of progress than there is about ultimate levels of functioning, in any particular child.

The assessment of functioning, at intervals, must serve as a means of viewing the child in terms of specific interventionary educational programing in less advanced functions. This does not mean that learning experience involving more advanced areas should be neglected or ignored, but rather that special attention should be directed to less advanced areas - perhaps entertaining small specific incremental goals coupled with equal attention to the means for effecting them. We should try to relegate unitary "scores", in our thinking, to the mind's "Inactive File" and concentrate on the elements of Patterning of Abilities.

It is important to look for and consider temperamental style as an essential part of the assessment procedure because of the direct bearing that temperament has on adaptive reactions and responses to the environment. For example, an exuberant, impulsive child may not stop to consider alternatives in approach to solution and, in a learning situation, needs to have alternatives explicitly pointed out, or to have verbally directed instruction to "slow down" and/or "look" at everything. A sensitive, or fearful child requires special encouragement, slower introduction into the learning situation and "muted" reactions by the teacher because of over-reaction to minimal stimuli or implied criticism in voice quality.

The developmental evaluation can be used to counsel with parents, in relation to helping them achieve a realistic picture of their child at a point in time, thereby increasing the chances for their appropriate awareness and responsiveness. It is often necessary to be very specific in getting parents to think realistically, i.e., comparing what their child does, in a certain area, with age-appropriate reactions in that area. The developmental evaluation can also be used with parents to develop points of focus for specific goals at home, particular

in self-help skills, and in carrying out, or reenforging specific goals developed at school.

Sharing specific incremental gains which have been made, with parents, measured by developmental evaluations over time, should be part of the ongoing programming. This can be an enormously heartening experience to parents (as well as to staff), spurring them on to carrying out further and future activities which are relatively inconvenient or "a bother".

Ongoing evaluation also serves the important function of teaching people not to harbor preconceived notions about learning and developmental status since we really do not know what course an individual child's development will take, especially under the impetus of a 0-3 program."

The staff psychologist willingly shares the psychological tests used at the Centers to assess the infants: Cattell, Gesell, Stanford-Binet and Bayley Scale, in the training of staff personnel, feeling that it is essential that staff become familiar with the milestones of development as measured by these tests. Also this type of exposure has been extremely helpful to the professional and para-professionals in planning tutoring sessions and developing curricula at the Centers; in giving the home visitors techniques and materials to use in the home visits to aid parents in giving the infant the kinds of experiences which will enhance his progress.

Both the psychiatrist and psychologist work with staff in the area of sensitivity to the problems of parents of atypical infants. These disciplines have been particularly valuable in helping the professional and para-professional work through feelings of hostility and anger directed toward the parent of a battered child, as well as the severely neglected child.

EDUCATION AND LANGUAGE

In the training of the professional and the para-professional, the educator and language specialist are responsible for the specifics, as it were, of cognitive development. Their main contribution is in the area of what experiences these infants need at specific times and at what level of development. They must use extreme caution with the atypical infants; for unlike the normal baby, who regulates in-put, the atypical infant frequently cannot do this. For the infant below the age of one year, the educator stresses the importance of a balanced sensory stimulation program. This may include the selection of material to be used with these infants; for example, placing mobiles down into the crib, hanging mirrors into the crib, wind-up music boxes, use of a metronome, tape recording of heartbeat to be placed in the crib for the baby who is two or three months old. The Language Specialist urges the professional and para-professional to talk to the babies all the time while handling them - changing their diapers, giving them the bottle, etc. - singing to them and cooing softly into one ear and then the other. The educator emphasizes the importance of a rich visual

field, stating that very young infants simply block out visual sameness within a period of 48 hours. Thus the professional and para-professional is urged to carry the babies around the Center during periods of the day and back-carriers are provided for this purpose. The Home Visitor is taught the importance of conveying to the parent the absolute necessity of having some infants in the general flow of activities in the house during some large period of the day. What a wealth of auditory stimulation comes from the kitchen -- the water running, the mixer whirring, pots and pans clanking! The convers, the necessity of protecting some infants from too much stimuli -- the need for quiet away from the mainstream of the household often occasions the Home Visitor to take the babies for walks in the neighborhood or with her as she goes shopping, giving the mother a little time to catch up at home while providing the baby with a variety of visual stimulation.

The Educator encourages staff to work with the babies on the floor on mats and urges them to place the babies in the pivot-prone position very early, as the atypical infant may resist this position very strongly later if allowed to remain on his back most of the time; it also limits his visual field and his ability to move, as, of course, all babies' first directed movement is from this position. Every Home Visitor is provided with a basket of materials to be used on home visits. The contents will depend upon the age and level of development of the infant and may include such items as:

A large, fluffy yarn ball
A mirror
Noisemakers
Musicbox
Rattles
Colored cubes
Cup
Textured materials
Hoop with string
Mobil
Flashlight

for developmentally immature infants. Such items as:

Formboard with handles for easy insertion
Matching color discs
Large colored, simple pictures of familiar objects mounted on tagboard, e.g.: ball, doll, mother
Firm ball
Pull toy
Jack-in-box
Limpy, sleepy doll

are used for the infant developmentally more mature. The educator stresses the importance of variety and contrast in working with infants.

The language specialist trains the professional and para-professional in the normal developmental levels of language and <u>how</u>

language develops; the definite stages which occur in the acquisition of language. She urges the professional and para-professional not to become discouraged; whereas the receptive language seems to develop at a fairly normal rate, expressive language is usually very slow. The language specialist and the occupational therapist work closely in language stimulation, realizing that lip closure, ability to chew, swallow, and blow are all precursors of speech. Many activities are taught to the professional and para-professional at this level. There are daily language sessions in the Centers -- a time each day which is set aside for language experiences, working with small groups of infants with the manipulation of objects, puppets, doll house, family dolls, or toy animals to stimulate familiarization with these objects and the eventual labeling of them. Also there are finger plays and body image songs, rhythms and music. The professional and para-professional, in turn, urge parents to spend at least 15 minutes a day with their infants in similar language sessions, in addition to the "talking with" the infants that must go on continuously.

All professionals and para-professionals must spend considerable time in each Center as a part of their training, working in the various designated areas, such as the language area, the Body Image and tactile stimulation area which has huge mirrors, the sensory stimulation area; and, as mentioned earlier, in the area of motor development and movement. We have developed an "obstacle course" for the infants which consists of a tactile crawling and walking board, with various soft and rough textures, over which the barefoot infant must either crawl or walk. There is a tire to crawl through, boxes to get in and out of, a small ladder up to a slide, a barrel to crawl through, tables to crawl under and through, two small steps to crawl or walk up and down, a little bridge, and a ladder placed on the floor. In addition to these, the infants receive water play daily in individual, large, plastic pans, into which the infant is placed. There are half-size barrels with rice and macaroni in which the infants are placed to feel with their entire bodies. Also, there is a type of finger painting, only the babies are placed nude in the middle of a mixture of flour and water. They are gently rubbed with this mixture and soon are oozing it through their fingers and putting it on each other. Portable mirrors are placed strategically around them so they can watch the entire procedure. The flour mixture is colored with food coloring. This helps to desensitize the tactilely sensitive infant, as well as to increase his awareness of self. Then the infants receive a warm bath, with staff talking with them and playing with them during bath time. The professional and para-professional must be willing to get messy and to work at the level of experiences these babies need. Needless to say, we lose a few after this part of training! In their training, all professionals and para-professionals participate in the feeding and toileting program. Even the Medical Administrator has been known to change a diaper or two!

NURSING, SOCIAL SERVICE, MEDICINE

The nurse, the social worker, and the pediatrician combine to present to the professional and the para-professional the health and

and welfare needs of all infants. At times these may be very specific. The Social Worker familiarizes those persons in training with the various community services available to the infant and the family. The Social Worker further trains the professional and para-professional in working with parents in specific problem areas, such as the management of a hyperactive or destructive two-year old in the house; and the importance of "crises" periods and how to refer parents for "crises" help to the proper agency if their needs are beyond the service offered by the Centers. Both the Social Worker and the nurse discuss at great length the attitudes of the public at large toward the handicapped in our society. The nurse, in cooperation with the occupational therapist, trains the professional and para-professional in areas of feeding and nutrition, and the nurse, along with the pediatrician, cover medical aspects one might encounter in working with atypical infants: for example, seizures, hydrocephaly, paralysis, surgery, heart conditions, and infection. The pediatrician trains the professional and para-professional for health and welfare factors, directly related to the infants. The professional and para-professional are required to attend physical examinations of infants at the Centers. Very specific "do's and don'ts" are reviewed in the training by the pediatrician. The pediatrician and nurse are responsible for all communication with private pediatricians whose patients are involved at the Centers. Professionals and para-professionals also observe in "intake" with the social worker.

An intense, two-week orientation course is given at the Centers and conducted by the staff every three months for the professional and para-professional interested in atypical infants. In addition, work in the Center is required for at least one month before home visitors are assigned an infant in the home. Until the home visitor feels comfortable with her family, a member of the Center's staff accompanies her on these visits. The home visitors are required to keep a log of their visits and are urged to leave written suggestions the parents to use as guidelines until the next visit. The home visitor must agree to "take" a family for a minimum of one year and see the infant a minimum of once a week. As stated earlier, in-service training continues for all professional and para-professionals in regularly scheduled meetings, at least three or four times during each month.

In summary, we have attempted to present the multi-disciplined team approach to the training of professional and para-professionals in early intervention with atypical infants. We have used our own Centers and our own training program as a base, in the hope that others who are involved and interested may receive from us a few concrete guidelines. There is a great need for all of us who are involved in this pioneering effort of early intervention with atypical infants to share whatever knowledge, experiences, and insight we have through working with these babies. They respond, as all babies do, to warmth, caring and love but <u>need</u> extra-special attention -- <u>early</u> -- to realize whatever potential they have.

It is our impression after sixteen months of service to atypical infants that these infants do not develop the secondary characteristics once associated with atypical development. These infants do not develop the kinesthetic disturbances of rocking, head banging, and flicking. They become responsive to the world, displaying affection, vocalization, and curiosity. We feel assured that further research will establish that the elimination of these secondary characteristics is directly attributable to early intervention.

APPENDIX

I. Clothing (or Dressing) Skills

II. Denver Development Screening Test

III. Development Scale for Language Levels

IV. Equipment for Nursery

V. Evaluation - Seal Bluff Center

VI. Feeding Activities

- A. Breath Control Games
- B. Cup and Glass Self-feeding
- C. Finger Food Self-feeding
- D. Spoon Self-feeding
- E. Straw Drinking
- F. Swallowing and Sucking
- G. Teaching the Child to Chew

VII. Sequence of Language Development

VIII. Sensori-Motor Stimulation

IX. Toilet Training by Charting

CLOTHING SKILLS

While teaching clothing skills, it is essential to enlist the cooperation of all those concerned with the care of the child. If the help of the parents can be enlisted in providing the type of clothing the child is learning to manage, it will increase his confidence and eagerness to be independent.

Loose fitting underclothes, elastic waistbands, outer clothing with large buttons or heavy-duty zippers in front are more easily managed by development center children. Practice with button boards and zipper boards is helpful but best is practice in front of mirror with special vests made with extra large buttons and buttonholes, others made with zippers.

It is most important to determine the functioning level of each child being trained, to attempt to teach specific skills, using appropriate rewards. If the child is resistant, reduce the difficulty of the task, so that the child can respond successfully.

On the video tape, two children were used to show dressing skills. These two children operate between two-and-a-half and three-year-old levels in most areas, but one child is a little more advanced in this area than the other child. The lessons are arranged in sequential order. We have attempted to show each step with Janine. Winnie has learned to take short cuts.

Lesson 1. Taking off untied shoes.

Lesson 2. Taking off socks from middle of foot.

Lesson 3. Taking off outer pants from knee level.

Lesson 4. Taking off T-shirt that is left on one arm.

Lesson 5. Pulls socks on from halfway point on foot.

Lesson 6. Pulls on outer pants from "one leg in" level.

Lesson 7. Pulls on outer shirt from "head in" and "one arm in" level.

Lesson 8. Puts on shoes that have been started over toes.

Sample Lesson Plan - Lesson No. I: Taking off T-shirt.

Lesson Objectives: Child will be able to remove T-shirt.

Instructional Materials: Loose fitting T-shirt, reward.

Procedures:

Step 1. a. After putting loose T-shirt on child, remove to place where shirt is dangling on one arm.

b. Give command, "Take your shirt off, Billy."

(1) if child shakes or pulls off shirt, reward!
(2) if makes attempt, assist and reward!
(3) if necessary, repeat command, place hand on child's hand and together remove shirt. Reward!
(4) repeat until child can obey verbal command.

Step 2. Shirt off child except for one shoulder and arm. Follow procedure outlined under Step 1-b.

Step 3. Shirt pulled over head but both arms in sleeves. Refer to Step 1-b.

Step 4. Shirt completely on. Refer to Step 1-b.

Step 5. When child has mastered Step 4, switch to a well fitting T-shirt.

a. Give verbal command, assist as needed. Reward!

b. Verbal command only, reward!

Criteria of Success: Child should be able to take off T-shirt by himself on verbal command.

Additional Note: Body Image is extremely important to learning dressing skills. Working in front of a mirror to learn body parts, spatial orientation, front and back, left and right, are all prerequisite to learning to dress and undress one's self. Some children will imitate pointing out body parts but are not really understanding. They must be taught through all the same basic procedures to recognize their own parts and to point them out on other people. By the same reasoning, they must also be taught, step by step, in sequential order, to identify articles of clothing and the body part it is related to.

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DENVER DEVELOPMENTAL SCREENING TEST

PERCENT OF CHILDREN PASSING

Pr=PRONE
Sit=SITTING

25 50 75 90
Test Item

Date
Ward
Name
Hosp. No.
Address

MONTHS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 18 20 22 24 — YEARS: 2½ 3 3½ 4 4½ 5 6

GROSS MOTOR

- PR. LIFTS HEAD ★
- BEAR SOME WEIGHT ON LEGS
- STANDS MOMENTARILY
- KICKS BALL FORWARD
- BALANCE ON 1 FOOT 10 SECONDS
- PR. HEAD UP 45°
- PULL TO SIT NO HEAD LAG 2
- WALKS HOLDING ON FURNITURE
- THROWS BALL OVERHAND 4
- HOPS ON 1 FOOT
- PR. HEAD UP 90°
- SITS WITHOUT SUPPORT
- STANDS ALONE WELL
- BALANCE ON 1 FOOT 1 SECOND
- CATCHES BOUNCED BALL 7
- PR. CHEST UP ARM SUPPORT 1
- STANDS HOLDING ON
- STOOPS & RECOVERS
- JUMPS IN PLACE
- HEEL TO TOE WALK 6
- SIT - HEAD STEADY
- PULLS SELF TO STAND
- WALKS WELL
- PEDALS TRIKE
- BACKWARD HEEL-TOE 8
- ROLLS OVER
- GETS TO SITTING
- WALKS BACKWARDS
- BROAD JUMP 5
- WALKS UP STEPS 3
- BALANCE ON 1 FOOT 5 SECONDS

FINE MOTOR-ADAPTIVE

- FOLLOWS TO MIDLINE 9 ★
- GRASPS RATTLE 10
- SIT, LOOKS FOR YARN 11
- SCRIBBLES SPONTANEOUSLY
- COPIES + 16
- SYMMETRICAL MOVEMENTS ★
- REGARDS RAISIN
- SIT, TAKES 2 CUBES
- TOWER OF 2 CUBES
- COPIES ○ 14
- COPIES □ 17
- FOLLOWS PAST MIDLINE 9
- REACHES FOR OBJECT
- BANGS 2 CUBES HELD IN HANDS
- TOWER OF 4 CUBES
- IMITATES BRIDGE
- IMITATES □ DEMONSTR.
- FOLLOWS 180° 9
- RAKES RAISIN ATTAINS
- NEAT PINCER GRASP OF RAISIN 13
- TOWER OF 8 CUBES
- IMITATES VERTICAL LINE WITHIN 30°
- DRAWS MAN 3 PARTS 18
- HANDS TOGETHER
- THUMB-FINGER GRASP 12
- DUMPS RAISIN FROM BOTTLE-SPONT.
- DRAWS MAN 6 PARTS 18
- TRANSFERS CUBE HAND TO HAND
- DUMPS RAISIN FROM BOTTLE-DEMONSTR
- PICKS LONGER LINE 3 OF 3 15

LANGUAGE

- RESPONDS TO BELL ★
- DADA OR MAMA, NONSPECIFIC
- 3 WORDS OTHER THAN MAMA, DADA
- COMPREHENDS COLD, TIRED, HUNGRY 21
- VOCALIZES NOT CRYING
- TURNS TO VOICE
- COMBINES 2 DIFFERENT WORDS
- COMPREHENDS 3 PREPOSITIONS 22
- DADA OR MAMA, SPECIFIC
- POINTS TO 1 NAMED BODY PART
- LAUGHS
- NAMES 1 PICTURE 19
- RECOGNIZES 3 COLORS
- SQUEALS
- OPPOSITE ANALOGIES 2 OF 3 23
- FOLLOWS 2 OF 3 DIRECTIONS 20
- IMITATES SPEECH SOUNDS
- DEFINES 6 WORDS 24 87%
- USES PLURALS
- GIVES 1ST & LAST NAME
- COMPOSITION OF — 25 87%

PERSONAL - SOCIAL

- REGARDS FACE ★
- INITIALLY SHY WITH STRANGERS
- IMITATES HOUSEWORK
- DONS SHOES-NOT TIED
- SMILES RESPONSIVELY 26
- PLAYS PAT-A-CAKE
- USES SPOON, SPILLING LITTLE
- BUTTONS UP
- SMILES SPONTANEOUSLY
- PLAYS BALL WITH EXAMINER
- WASHES & DRIES HANDS
- FEEDS SELF CRACKER
- INDICATES WANTS (NOT CRY)
- HELPS IN HOUSE-SIMPLE TASKS
- DRESSES WITH SUPERVISION
- RESISTS TOY PULL 27
- SEPARATES FROM MOTHER EASILY
- 50%
- PLAYS PEEK-A-BOO
- DRINKS FROM CUP
- PLAYS INTERACTIVE GAMES e.g., TAG
- ★ 90% PASS AT 1 MONTH
- WORKS FOR TOY OUT OF REACH
- REMOVES GARMENT
- DRESSES WITHOUT SUPERVISION 28

MONTHS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 18 20 22 24 — YEARS: 2½ 3 3½ 4 4½ 5 6

NOTE BEHAVIOR OBSERVATIONS ON REVERSE SIDE

Date

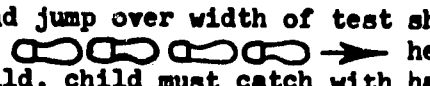
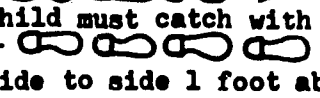
Ward

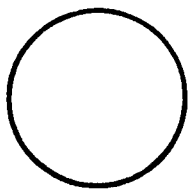
Name

Hosp. No.

Address

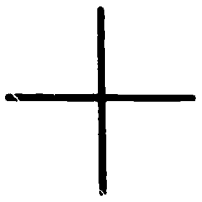
DIRECTIONS

1. Infant, when prone, lifts chest off table with support of forearms and/or hands.
2. Examiner grasps child's hands, pulls him from supine to sitting, child has no head lag.
3. Child may use wall or rail only, not person, may not crawl.
4. Child throws ball overhand 3 feet to within examiner's reach.
5. Child performs standing broad jump over width of test sheet.
6. Ask child to walk forward,  heel within 1 inch of toe.
7. Examiner bounces ball to child, child must catch with hands (2 of 3 trials).
8. Ask child to walk backwards,  toe within 1 inch of heel.
9. Examiner moves yarn in arc from side to side 1 foot above baby's head. Note if eyes follow 90° to midline (past midline; 180°).
10. Infant grasps rattle when touched to his finger tips.
11. Child looks after yarn dropped from sight over table's edge.
12. Child grasps raisin between thumb and index finger.
13. Child performs overhand grasp of raisin with tips of thumb and index finger.

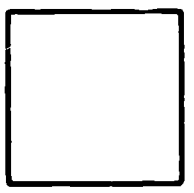


14. Copy: Pass any enclosed form. Do not demonstrate. Do not name form.

15. "Which line is <u>longer</u>?" (Not bigger.) Turn paper upside down, repeat (Pass 3 of 3).

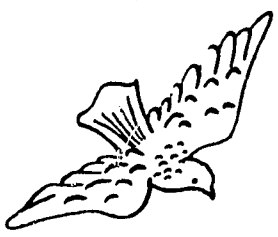


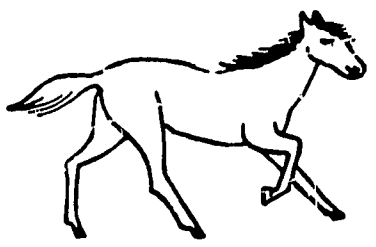
16. Pass crossing lines, any angle.



17. Have child copy first. If fail, demonstrate. Pass figure with 4 square corners.

18. When scoring, symmetrical parts count as one (2 arms or 2 eyes count as one part only).
19. Point to picture and have child name it.





20. Examiner asks child to: "Give block to Mommie, put block on table, put block on floor" (2 of 3). Caution: Examiner not to gesture with head or eyes.
21. Child answers 2 of 3 questions: "What do you do when you are cold? hungry? tired?"
22. Examiner asks child to: "Put block <u>on</u> table, <u>under</u> table, in <u>front</u> of chair, <u>behind</u> chair." Caution: Examiner not to gesture with head or eyes.
23. Examiner asks child: "Fire is hot, ice is____. Mother is a woman, dad is a____. A horse is big, a mouse is____." (Pass if 2 of 3 are correct.)
24. Ask child to define 6: ball; lake; desk; house; banana; curtain; hedge; pavement. Pass if defined in terms of use, structure, composition or classification.
25. Examiner asks: "What is a spoon made of? a shoe made of? a door made of?" (No other objects may be substituted.) Must pass all 3.
26. Examiner attempts to elicit a smile by: smiling, talking or waving to infant, <u>do not touch</u>, baby smiles responsively in 2 or 3 attempts.
27. When child is playing with toy, pull it away from him. Pass if he resists.
28. Child need not be able to tie shoes or button in the back.

W. K. Frankenburg, M.D. and J. B. Dodds, Ph.D., Univ. of Colo. Medical Center, Denver, Colo.

DATE AND BEHAVIORAL OBSERVATIONS

(how child feels at time of the evaluation, relation to examiner, attention span, verbal behavior, self-confidence, etc.):

157, 1-69
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SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

SELF-CARE DRESSING

DATE						
Holds out arm for sleeve.						
Holds out foot for shoe						
Grasps named objects--socks, shoes, pants, etc.						
Removes shoes if unlaced.						
Removes shoes.						
Puts on socks.						
Puts on shoes.						
Removes pants.						
Puts on pants.						
Removes shirt or blouse with help.						
Puts on shirt or blouse.						
Removes shirt or blouse.						
Removes undershirt.						
Puts on undershirt.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

SELF-CARE DRESSING

Page Two

NAME: _____

BIRTHDATE: _____

DATE						
Hangs clothes on hook						
Opens zipper on own clothes.						
Closes zipper on own clothes.						
Unbuttons buttons on front of own coat.						
Buttons own clothes.						
Laces shoes.						

COMMENTS:

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

SELF-CARE FEEDING DATE						
Sits at the table						
Swallows food						
Finger feeds						
Holds Spoon						
Scoops food with spoon						
Drinks from cup						
Eats semi-solid food						
Eats with spoon						
Chews solid foods						
Eats with fork						
Eats and drinks without spilling						
Table manners are acceptable to society						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

SELF-CARE - PERSONAL HYGIENE

	DATE					
Indicates when wet.						
Pulls pants down with help.						
Pulls pants down independently.						
Pulls pants up.						
Sits on toilet with supervision.						
Sits on toilet independently.						
Uses toilet paper appropriately.						
Flushes toilet appropriately.						
Washes and dries hands with supervision.						
Washes and dries hands independently.						
Combs and brushes hair with supervision.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

SELF-CARE - PERSONAL HYGIENE

NAME: _____

BIRTHDATE: _____

DATE						
Combs and brushes hair independently.						
Brush teeth with help.						
Brush teeth Independently.						
Squeeze toothpast on brush.						
Washes and dries face independently.						
Blows nose upon request.						
Blows nose independently.						
Goes to toilet independently.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME:_____

BIRTHDATE:_____

GROSS MOTOR
BALANCE- LOCOMOTION

	DATE					
Rolls partly to side.						
Lifts head from prone.						
Supports self on forearm.						
Rolls from prone to supine.						
Lifts head from supine with pull on arms.						
Supports self on extended arms.						
Rolls from supine to prone.						
Sits unsteadily when placed.						
Gets self to sitting position.						
Assumes creeping position.						
Creeps reciprocally.						

COMMENTS:

SEAL BLUFF CENTER EVALUATION

GROSS MOTOR - BALANCE - LOCOMOTION

Page Two

NAME: _____

BIRTHDATE: _____

DATE						
Pulls self to standing position.						
Assumes and maintains standing balance.						
Walks assisted.						
Pushes (push) toys.						
Walks independently - forward, Backward						
Pulls wagon.						
Walks, Squats in play.						
Walks upstairs, downstairs holding on to bannister 2 steps per tread.						
Walks upstairs, downstairs - May hold on to adult's hand, finger.						
Walks upstairs, downstairs independently alternating feet.						
Jumps in place.						
Kicks ball from standing position.						
Stands on one foot per one second.						
Hops on one foot assisted.						
Catches large ball from 2-foot distance arms stiff.						
Catches large ball - arms flexed at elbow						
Rides a tricycle without assistance.						

SEAL BLUFF CENTER EVALUATION

GROSS MOTOR - BALANCE - LOCOMOTION

NAME: _____

Page Three

BIRTHDATE: _____

	DATE					
Runs a short distance.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

FINE MOTOR - EYE-HAND

	DATE					
Eyes follow to mid-line.						
Maintains grasp on rattle, finger, etc.						
Eyes follow 180 degree.						
Begins to extend fingers.						
Palmer grasp.						
Purposeful reaching.						
Finger feeds.						
Holds bottle.						
Transfers objects from hand to hand.						
Voluntary release.						
Builds tower of 2 cubes.						

COMMENTS:

SEAL BLUFF CENTER EVALUATION

FINE MOTOR - EYE-HAND

Page Two

NAME: _____

BIRTHDATE: _____

DATE						
Opposed thumb and first 2 fingers in grasping.						
Builds tower of 3-4 cubes.						
Places round block in round hole.						
Holds crayon and scribbles.						
Builds tower of 5-6 cubes.						
Drinks from glass or cup.						
Throws ball.						
Eats with spoon.						
Strings beads.						
Builds tower of 7-8 cubes.						
Manipulates 1-1/2" buttons on button board.						
Copies a circle.						
Builds tower of 9-10 cubes.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

LOCATING AND NAMING BODY PARTS

	DATE					
HAIR:						
Locates on self.						
Locates on others.						
EYE:						
Locates on self.						
Locates on others.						
NOSE:						
Locates on self.						
Locates on others.						
EAR:						
Locates on self.						
Locates on others.						
MOUTH:						
Locates on self.						
Locates on others.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

LOCATING AND NAMING BODY PARTS
Page Two

NAME: _____

BIRTHDATE: _____

	DATE					
CHIN:						
Locates on self.						
Locates on others.						
NECK:						
Locates on self.						
Locates on others.						
CHEST:						
Locates on self.						
Locates on others.						
ARM:						
Locates on self.						
Locates on others.						
HAND:						
Locates on self.						
Locates on others.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

LOCATING AND NAMING BODY PARTS

DATE						
FINGER:						
Locates on self.						
Locates on others.						
STOMACH:						
Locates on self.						
Locates on others.						
LEG:						
Locates on self.						
Locates on others.						
FOOT:						
Locates on self.						
Locates on others.						
TOE:						
Locates on self.						
Locates on others.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME:_____

BIRTHDATE:_____

LOCATING AND NAMING BODY PARTS
Page Four.

DATE						
EYE BROWS:						
Locates on self.						
Locates on others.						
LIPS:						
Locates on self.						
Locates on others.						
ELBOWS:						
Locates on self.						
Locates on others.						
FINGERNAILS:						
Locates on self.						
Locates on others.						
KNEES:						
Locates on self.						
Locates on others.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

LOCATING AND NAMING BODY PARTS

	DATE					
TOENAILS:						
Locates on self.						
Locates on others.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

RECEPTIVE LANGUAGE

DATE						
Shows awareness of light, sound, object, person.						
Adjusts to gestures by "bye-bye," "peek-a-boo," "hello."						
Adjusts to words by "bye-bye", "peek-a-boo", etc.						
Follows directions by gestures -- look, come.						
Follows directions by words ---look, come.						
Responds to inhibitiory words - no, don't, stop.						
Can demonstrate with action - imitate, sit, stand, run, jump,eat,drink,fly,etc.						
Can demonstrate with action through word-use only, sit, stand, run, etc.						
Understands two prepositions - put "on," "in," "over," "under," "up," "down," etc.						
Responds to own name.						
Can follow single 3-step commands in sequence.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

EXPRESSIVE LANGUAGE

DATE						
Reacts to stimuli by crying, fussing, smiling, babbling.						
Imitates sounds, syllables, m, ma-ma.						
Repeats names of objects, fellow siblings.						
Identifies (label) members of family, household pets, familiar animals, objects.						
Identifies common animals, objects by sounds they make, what they do.						
Uses gestures for answers--shake head for "no," nod head for "yes."						
Identifies self by--I, me, own name.						
Refers to familiar people by name.						
Does motions suggested in songs, rhymes.						
Shows enjoyment, by humming along in a song, clapping hands after a song.						
Expresses self (decision) says "yes," "no".						
Exchanges simple courtesies--hi, hello, good morning, goodbye.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

EXPRESSIVE

NAME: _____

BIRTHDATE: _____

DATE						
Expresses simple needs, wants - bathroom, potty, drink.						
Classifies self - boy, girl.						
Uses---I, Me, You.						
Qualifies nouns---big dog, little cat.						
Practices simple courtesies to presented situations - thank you, please, excuse me.						
Correlates for answers--What do you do with the bread? "eat"						
Understands, says, tells--hot, cold, open, close.						
Talks in 2-3 word phrases.						
Talks in simple sentences.						
Laughs appropriately.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

COGNITIVE AREAS DATE						
ATTENTION SPAN:						
Focuses or attends to specific object or activity in specified time.						
TASK ORIENTATION:						
Sees the relationship of objects. Can manipulate successfully.						
ORGANIZATIONAL LEVEL:						
Completes simple tasks in sequence.						
VISUAL PERCEPTION:						
Matching objects, pictures, colors.						
Recognizes familiar faces, animals, himself.						
Distinguish parts of body.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

COGNITIVE AREAS
Page Two

NAME: _____

BIRTHDATE: _____

DATE						
AUDITORY:						
Follows the pattern of a beat.						
Understands and responds to words, simple commands						
Distinguishes between sounds.						
NUMBERS CONCEPT:						
Counts 3 objects.						
Counts in sequence.						
Knows sizes - big, little, small, large.						
TIME CONCEPT:						
Lunch, nap, leaving, toileting-time.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

COGNITIVE AREAS
Page Three.

DATE						
CURIOSITY:						
Wanders, Explores.						
Develops an interest in learning for himself.						
Likes to make something happen.						
CREATIVITY:						
Participates in dramatic play.						
Transfers experiences in other situations.						
Uses toys in a variety of ways.						
RESPONSE RATE:						
Reacts to visual stimuli appropriately.						
Reacts to auditory stimuli appropriately.						
Reacts to tactile stimuli appropriately.						
Reacts to kinesthetic stimuli appropriately.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

COGNITIVE AREAS
Page Four.

NAME: _____

BIRTHDATE: _____

DATE						
SPATIAL CONCEPTS:						
Aware of up, down, backward, forward, beside (when sitting).						
Knows when he is sitting, standing, walking by following command.						
Is able to overcome obstacles in path.						
Sees relationship between simple objects.						
OLFACTORY:						
Can discriminate odors.						
Shows preference for certain odors.						
TACTILE:						
Aware of materials, objects through touch.						
Can distinguish rough, soft, hard, hot, cold, smooth.						
Has preferences for certain textures.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

COGNITIVE AREAS
Page Five.

NAME: _____

BIRTHDATE: _____

DATE						
COGNITIVE:ROAD MAPPING:						
Able to stay within pathway on floor.						
Able to follow foot prints on floor using alternating steps.						
Knows where bathroom and various activity centers are.						
Knows where doors are and their use.						
Goes to and from bus independently.						
Can travel around familiar area alone and return.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

SOCIAL OBJECTIVES AND EMOTIONAL DATE						
Clings to object for security.						
Plays in isolation.						
Aware of other children.						
Parallel play.						
Occasionally interacts with other children.						
Interacts with adults consistently.						
Participates in imitative play.						
Recognizes self in mirror.						
Recognizes self in photograph.						
Sees self as separate from objects and people.						
Uses skills to help other children.						
COMMENTS:						

SEAL BLUFF CENTER EVALUATION

NAME: _____

BIRTHDATE: _____

SOCIAL OBJECTIVES AND EMOTIONAL
Page Two.

DATE						
Attempts to control frustrations.						
Attempts to share beloved adults.						
Takes turns.						
Increasing need to be independent.						
Can work in group situation.						
Participates in role playing, e.g., dramatic play, teacher, playhouse.						
COMMENTS:						

SUGGESTED LIST OF EQUIPTMENT FOR NURSERY

AGES 0-3 - ATYPICAL INFANTS

TOYS -	phones - 10.00	10.00
	plastic fruits (big-Little)	1.50
	that open & close,	
	that has action, noise	20.00
	pull	2.50, 2.75, 3.25
	balls	5.00, 10.45
	tricycles graduated sizes	10.99, 11.99, 8.99
	walkers (jumper)_	11.95, 59.50
	books with one picture per page	10.00
	flannel board	8.00
	dolls	3.95, 5.00, 9.75
	infant seat	6.49
	slide	12.95
	small ladder	39.50
	texture board	
	straws	1.00, 1.50 pkg
	blowing things (horns, feathers)	
	high chair	21.95
	swings for babies	10.98
	materials for finger painting	1.30
	wagons	10.95, 7.59, 11.49
	strollers	23.00
	movie camera	300.00
	potty chairs	6.49,5.49, 3.79, 2.29, 5.99
	barrel	2.50
	box "Busy Box"	4.98'
	materials for tasting, smelling	10.00
	materials for textures	10.00
	cribs	27.95
	playpen (mesh)	16.95
	chairs	6.30, 7.95, 9.75, 7.50
	tables	38.15
	rockers	8.50
	record player	
	records	1.25, 7.80, 2.25, 1.98
	electric tooth brushes	12.99, 7.99, 6.99
	mats for naptime	25.00
	mirrors	23,49, 16.00, 10.99, 2.50, 3.95
	standing tables or boards	135.00
	pencils, crayons, chalk, scissors	25.00
	house, simple, basic furniture, black board	100.00

pictures or objects of families and furniture 7.75. 5/50. 6.95
miscl rooms, miscl prices

FEEDING ACTIVITIES

First step in feeding activities is to evaluate where the child is in the Developmental Scale.

1. Feeding by mouth - sucking and swallowing
2. Spoon fed
3. Cup and glass self feeding
4. Self feeding

How is he physically, does he need a special table, head support, dish or spoon?

Does he have difficulty in feeding such as inability to close his lips, to chew or swallow or does he have tongue thrust?

Is his family concerned about his eating problem and willing to cooperate and be a part of the planned program? A child has no drive to learn eating activities if he is full and contented. You may need cooperation from the family to hold the child's breakfast.

After you have thoroughly evaluated the feeding problem, then comes the actual technique to help to correct them.

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BREATH CONTROL GAMES

Blowing - Blow the seed from dandelions, blow out candles, blow whistles and other toy musical instruments, blow up balloons, blow the jackets from drinking straws, blow curled party favors, blow up paper bags and make them pop, blow pinwheels, blow soap bubbles.

Make small folded paper boats or use bottle caps with toothpicks for masts and paper for sails. Place in sink or pan of water and have child blow them about the sea. Some children will enjoy doing this in the bathtub during their bath with toy plastic boats. They can use a tube from waxed paper to blow into to try to make waves or storms to sink their boats.

Hunting Game - Draw or find animal pictures, mount pictures on light cardboard or construction paper, make a light cardboard base, line up animals and have child attempt to blow them over. Have him blow through a cardboard tube and pretend it is a blow gun.

TONGUE EXERCISES

Licking - Ice cream cones, lollypops, a spoon with honey or other sweets on it.

Put sticky stuff on lower lip, corners of mouth, upper lip. Make sure it is something your child likes the taste of. Encourage child to lick it off.

Put sticky stuff behind the teeth, on the roof of the mouth, behind the gums. Encourage child to lick it off.

Encourage child to suck through a straw. Use soft plastic if paper ones are too easily crushed. Do not use glass straws.

Try to make these games fun. Don't work for more than 5 or 10 minutes at a time.

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CUP AND GLASS SELF-FEEDING

Developmental Readiness:

Child should swallow, not suck, liquids. He can drink continuously four to five swallows or more. He can grasp cup with both hands.

Procedure and Position:

1. Good posture, sitting upright, feet supported, body supported, as described in earlier sections. He should have a table (or, better, a high chair tray with edges) at a comfortable height in front of him.

2. Start training when child is thirsty, rested, and with some liquid he likes. Fill glass ⅓ full or less. Adult sits a little behind and to right or left, depending on handedness, and guides child's hand and arm in correct pattern to bring cup to mouth and tip slightly. Child may hold cup in hand alone, or adult may place his hand over child's, so they are both holding it. Emphasize to child the tilt of the cup and what happens to the liquid.

Social:

Support, smiles, praise for child and encouraging parent to continue these efforts and try to overlook spills.

Special Helps:

1. Cups may be more handy if they have one or more of the following features: lid and small hole or spout to regulate flow and prevent spills, long handles so that entire fist may be used for grasping. If grasp is weak, handles may be built up with foam rubber as with spoon handles in previous section. Double handles, one on each side, if arms are weak or coordination is poor and he might do better using two hands. Broad base is always good for the learner to minimize tipping. Weighted base reduces tipping and may help stabilize movements when coordination is poor or there are extraneous movements.

2. Plastic tubing, rubber tubing, or drinking straws if child is unable to lift cup. Cut to desired size, usually 8-9". Wash immediately if tubing is to be re-used. Paper or cellophane straws can be found which bend at the proper angle and are disposable. The plastic or rubber tubing will withstand the child's biting or chewing better than the others. Never use glass!

3. Tube or straw drinking is also recommended to reinforce lip closure, partial closure, use of tongue and other mouth movements necessary to development of speech.

4. If child is having difficulty with the actual mouth movements of drinking, it is often best to forget his cup handling and work on these (unless he has an overwhelming desire to do it himself, or would feel badly at having the adult take over again).

5. Some references suggest a semi-reclining position as being helpful, but many children choke on liquids in this position.

SELF-FEEDING: FINGER FOODS

Developmental Readiness:

When child shows some of these signs and has mastered the eating stages that come before:

1. Munches rather than sucks; demands play objects at meals.
2. Shows eagerness or fusses if mother is slow in presenting food.
3. Pokes with index finger; grasps objects with well-defined thumb-finger opposition.
4. Able to bite off food, move food to chewing position, chew and swallow.

Procedure:

Place small amounts of food easily picked up with fingers on tray before child. The usual instinct in a young child is to pick everything up and chew on it. But you may have to show the child how to do it. Teach child to chew by moving his jaws up and down; teach words such as "bite," "chew," "swallow," and names of most common foods. See that he doesn't stuff his mouth, by being sure chewed food is swallowed before next bite is taken. Introduce new foods when he is hungry, one at a time. Continue some spoon feeding with each meal, so he doesn't forget how. Teach self-feeding with spoon only after finger feeding becomes easy, so he need not learn two new skills at once.

Type of Food:

Non-liquid food which has color and shape appeal, taste and texture appeal. For example -- let child munch on zwiebacks, green beans, crackers, carrot and celery sticks, apple slices (take skin off at first), green seedless grapes, banana, meat cubes, scrambled eggs, dry cereals (cheerios, life, etc.), crisp bacon, meatballs, tiny boiled potatoes, and small nourishingly filled sandwiches. (See also later section on "Variety")

Position:

Seated upright with feet on floor or firmly supported, and a good food tray. Use a good high chair with tray or pulled up to table (messier), or a standard low feed and play table, square with child seated in the cut-out portion. This is good because it offers good support, and child can have more variety of movement while eating or playing without knocking things off.

Social:

1. Reassure parents of child's readiness. Help parent schedule time and possibly outside help so that feeding time can be calm and pleasant for mother and child.

2. Fixed routine, time and cheerful place. Avoid distractions and be sure child is dry, warm, rested and comfortable.

3. Watch carefully for fatigue or loss of interest and finish meal with help.

4. He may have part or all of his meal with family.

Special Helps:

1. If chewing is difficult because of malocclusion or decay, sore gums or any other dental factor, consult a good pediatric dentist. Cooked cereals, canned fruits and some vegetables, mashed potatoes, meat loaf, scrambled eggs require very little chewing.

2. Help him learn to chew by putting his jaw through the correct up and down motions with your hand. This may require much, much repetition.

3. Use newspapers, large bib, and an easily cleanable surrounding area in case child grabs at other things or tosses food. The latter must be consistently discouraged, lest it become a habit. Seat him over an arm's reach from other children and their food.

4. Caution: Mouth breathers are apt to breathe small particles into larynx and even into lungs. Encourage nose breathing by any means you can. If child simply cannot seem to get enough air by nose, discuss it with nurse (or doctor) to see if any change is possible. Mouth breathers generally should avoid brittle or fragmentary foods which split off and do not dissolve quickly, such as nuts, raw carrots, triscuits, shredded wheat, and others. Also be especially careful about his filling the mouth too full.

5. Lazy tongue is especially common among retarded children, and is especially noticeable when he must move food to side position for chewing. Try anything you can think of to get him to move tongue around, and be aware of every part of mouth. For example, brushing teeth more often and brushing tongue (top, tip, and sides), gums and inside of cheeks all very gently. A small amount of honey or peanut butter at right, then left corners of lips encourages lateral tongue movements in some children. Feeding first to right and then to left sides of mouth will get some children to start using the tongue. Remember to repeat efforts and try your own ideas!

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SPOON SELF-FEEDING

Developmental Readiness

Child already eats finger foods, plays with spoon, wants dish on tray. He is ready about the time he can hand over and release objects, or build a tower with two blocks. He has been spoon fed and manages well.

Process and Form of Food:

Holding a spoon in his preferred hand, the child learns to feed himself. The mother may sit to rear of child and guide his efforts in a natural manner, (as described in section on spoon feeding by adult) until he is ready to do it himself. Special equipment (see special helps) may be needed in initial stages; usual tableware should be used whenever possible.

Positional:

A good highchair with tray and foot rest; or whatever else may be needed to keep child in an upright, comfortable, well-supported posture.

Social:

Minimal initial servings; seconds when desired; liberal praise; no disapproval for unintentional mishaps. Calm, uncluttered, cheerful atmosphere. Child should, as at all stages, be rested, dry, warm and hungry! Begin by feeding alone with parental attention quickly available; later child may join family for part or all of the meal, though he will still be slow and need help.

Special Helps:

1. Equipment. Large bib for mother and child, newspapers on floor, broad-based, heavy, non-breakable dishes, and short handled spoons with bowl to fit child's mouth are all standard equipment.

   Special devices are used only when necessary, and after carefully thinking through the problem. Progress to normal utensils is made as soon as possible. See end of this section for notes on specialized equipment for the beginning self-feeder.

2. To begin, select foods which adhere easily to spoon: oatmeal, cream puddings, mashed squash, potato, sweet potato, apple sauce, baked beans, creamed beef or chicken, etc. Thin soups, slippery peaches, rolling peas and the like are very difficult until control improves. Introduce these later in small amounts.

3. If the grasp, reach, and arm movements seem weak or uncoordinated, think of activities at non-feeding times to strengthen and improve coordination, e.g. passing and later tossing colorful beanbag; building with unit blocks; pushing and pulling push toys, wagon; and playing with all sorts of small and large toys; helping with toothbrushing; swinging and raising arms as part of "dancing" to music; sandbox play with spoon and pail, and pouring sand, rice, or water; etc.

4. Sometimes it is a good idea to feed child every other bite when beginning, especially if the child has some physical handicap or tires very easily. This method can also make mealtime very sociable, but will not work if child wants the grown-up to do it all. Of course, if the child wants to do it all by himself, so much the better.

5. Continue finger foods even as child is learning self-feeding. Especially good to begin and end the meal, as they are probably by now fairly easy for him.

6. Overlook accidental spilling and messing as this is a normal part of development. Begin with short self-feeding periods. Fatigue, boredom, unusual messiness and negative attitudes are closely related, so take it slowly, with liberal praise and offer adult assistance in normal patterns of self-feeding. Of course, some children are fiercely independent, so help only when they accept assistance.

7. The way this child has been fed before matters. If he is accustomed to eating with his head tilted back, or having food scraped off against upper teeth, he will need to learn new patterns. Normal lip, chewing and tongue movements are the goal. See previous sections for special helps.

Special Equipment for Self-Feeding:

A. Spoon variations can be important especially if there is a physical component to the child's problem, as in C. P.

1. Basic shape of spoon, bowl size, and handle length and width can decide success or failure. Most young children prefer a short spoon, with generous rounded bowl and thick handle. A soft rubberized spoon from drugstore may be a good start. But experiment a little since every child is so very different.

2. Padded or built-up handles may be used on spoons, forks, knives and cups for the child who has a weak or incomplete grasp. Sponge rubber may be taped, glued or sewn to handle.

3. Other adaptations. Twisted handles, bent to curves fitting child's hand. Finger ring or hand ring welded or riveted to spoon. Swivel spoon occasionally helpful where child can't make the switch in direction just before mouth. Spool on handle (very temporary build-up (unnatural) position). Handle specially molded to fit child's own hand. Very small bowl for child with cleft palate or small mouth.

B. Plate adaptatations and stabilizers.

Young children, retarded or not, often have trouble with food sliding off edge of plate, and with bowls and plates which scoot around table and even off it to the floor. This can be distressing, to put it mildly, and with some retarded and C. P. children, this phase of learning can seem interminable.

The underlying reasons for food sliding and dish scooting are very similar: The child has not yet mastered the art of sliding under food and lifting it, or of stabbing it with a fork when appropriate.

To rectify, try consistently to teach child correct patterns. Work especially on the arm and hand movements, teaching child to fill spoon or slide under food more gently. Practice with him how to stab and lift foods when he is coordinated enough so a fork is safe. Forks are also far more adept at sliding under foods than are spoons; and a blunt knife or piece of bread are good pushers if they are acceptable to the family.

Equipment to minimize food disarray while child learns: Deep bowl; plate guard, a metal arc which fastens to normal plate; secional plates, compartmentalized dinnerware, unbreakable; suction cups, rubber mat, clay or plasticene (from variety or art stores) help stabilize dish to table; wooden board, with circular cutouts for cup and dishes, may be clamped to the table at mealtime.

Standard child's deep, divided feeding dish with suction cup on bottom and hot water compartment below combines three prime features with sturdiness and availability.

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STRAW DRINKING

Use a soft plastic straw or a length of rubber tubing about the size of a straw.

To begin, use something sweet that the child likes, such as gelatine that is still liquid.

1. Put the straw in the liquid - place your finger over the hole in the top and this will hold the liquid that has entered the straw.

2. Remove the straw from the liquid and tilt it into the child's mouth. Do this several times until he associates the straw with the idea of obtaining some of the liquid. Do not let him drink the liquid or obtain it in any other way.

3. Lower end of straw slightly so that the liquid won't run out until he sucks just a little. Sometimes demonstrating and making sucking noises will encourage him to suck. Encourage closing lips, not teeth, around straw. If he has trouble closing his jaws around the straw, stand behind him and hold his chin in your hand. Then gently restrain him from opening any wider than is necessary to insert straw. Use your fingers to help him round his lips if necessary.

4. Reinforce sucking movements by praising and rewarding him. Very gradually continue to lower end of straw until he can use it vertically. When this point is reached, you can probably transfer to paper straws.

5. Have him drink everything through straws for a while, gradually increasing the consistency of the liquids so that more vigorous sucking is necessary.

Be sure to make learning to drink from a straw fun. You will have better luck if you work between mealtimes and at a time when both you and your child are feeling happy and relaxed.

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FEEDING BY MOUTH: SWALLOWING AND SUCKING

Swallowing Only:

A. Developmental Readiness:

The child can swallow his own saliva. Lip reflex may be present.

B. Process:

Liquid fed by spoon. Breck feeder.

Sucking and Swallowing:

A. Developmental Readiness:

The child can suck his fingers or an object, even though weakly. He can swallow water or saliva without difficulty.

B. Process:

Prescribed formula with nursing bottle and nipple (or breast, if the mother still has milk!). Nipple hole sizes adjusts formula flow to suit baby's sucking strength.

C. Positioning (for both Swallowing Only and Sucking and Swallowing):

Child is held in semi-reclining position, comfortably and with good support. Arm holding and cuddling is preferred for bottle feeding the baby. For an older child, or one who moves a great deal, or when parent needs use of both hands, try: Infant seat (light weight padded plastic chair, semi-reclining, available in most store infant departments); special chair, adjustable for good fit and support of the older child. Feet, knees and hips are best at right angles, even in semi-reclining position. Whole spine should be straight (from very low back through neck) with lightweight, easily cleaned padding for hips, back, neck and head.

D. Social:

Cuddling, loving, talking to child. Playing, resting and other activities at non-feeding times. Changes of position, mobiles, and cradle gym in crib. Be sure he is dry, rested and warm for feeding. Fit feeding into the household routine to provide as much calm and acceptance as possible by other household members.

Special Helps:

1. Infant seat or special chair, as described above.

2. Help in learning to swallow:

   a. In early stages, to develop swallowing skills, use water fed to back of mouth by spoon or medicine dropper. He may do better if you close his mouth for him. Gently stroke throat downward from below chin to chest, telling him "swallow."

b. Stimulate to elicit sucking-swallowing reflex -- see #3 Special Helps in previous section.

c. Place liquid on back of tongue in small amounts, using long-handled spoon with very small bowl. (That placed on front of tongue may just be pushed out) until sucking is developed. The child will probably drool as most normal children do at this stage of development. It helps to close his mouth for him (as it is nearly impossible to swallow with an open mouth), but be sure you do not interfere with his breathing. Use a large bib; wait with next spoonful until he swallows, or mouth seems empty, or he opens mouth for more. Strained foods are not fed to back of mouth, as we want to teach the mouth to be active and use normal patterns. The next step is good use of sucking.

3. When swallowing small amounts of liquids is easy, work to develop the sucking reflex and later strengthen it.

a. Blanchard Method of feeding, described by Patricia Holser Buehler, O.T.R., is included in this A.I.D. packet. Especially designed for C.P. patients, the article describes reflexes and reasons and a method which can be useful for feeding any child learning to suck.

b. Using plastic tubing as straw, gently close child's lips around straw, and let small amount of liquid flow down into child's mouth from above. (To control amount dip one end in liquid to desired level, then place your finger tightly over the top end so liquid stays in.) Practice this for lip closure and for first sucking. Following this, the infant will be put on the nursing bottle while the older child, beyond nursing age, continues to strengthen the sucking skills by continued use of the straw. Gradually (perhaps over days, weeks or longer) lower the level of the liquid so child must suck from source on level with his mouth, and eventually suck the liquid up from a bottle or cup on the table. Be sure to use a favorite liquid.

c. When using a nursing bottle, flow may be made quicker and easier by enlarging the hole with fine heated needle, or new nipples may be softened by boiling them. Different types of nipples are commercially available with different shapes, hole sizes and sizes. All babies differ, so experiment to find out which type suits your baby and his present needs and size. Sometimes useful are Davol cleft palate nipple, Breck feeder, or medicine dropper. Be sure the flow is not too fast, causing child to choke. (When inverted it should drip, not squirt.)

d. Good sucking pattern is a big step towards good speech patterns which are to evolve later. As strength and rhythm improve, replace large-holed, easy, fast nipples with smaller-holed, new ones so the baby has some resistance and learns to suck strongly.

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TEACHING THE CHILD TO CHEW

Many retarded children do not learn to chew as soon as the normal child develops this ability. Mental age partially determines readiness for chewing. Certain things can be done to help him learn to chew which we have indicated below. As with most skills this takes time and practice. With older children, it may be more difficult as he has developed other habits which must be changed as we introduce him to learning to chew.

Eating should be a pleasure. If we are to develop good habits, it will be a must that we plan meal time to be a pleasant experience.

First, the child should have his main teeth. The teeth grind the food and the tongue mixes the food with the saliva. Thus he must also be able to move the tongue.

Put a small piece of food between the molars and move the lower jaw up and down. Show him how you chew. Sometimes placing his head against you will give him the support he needs, and also it will help you to guide his jaw. As this motion is repeated, the child should be able to pick up on this and move the jaw on his own. Switch sides that you move so he does not become accustomed to chewing on just one side.

If the child tries to force the food out with his tongue, move the food back farther on his molars.

Give the child bite sizes of food to start. Toast, graham crackers, cookies and other foods that he can feel and hear are good ones to encourage him to try. The crunch in cereals and foo like the above make it interesting to him, because he does hear the sound it makes when he chews. The new sugared cereals also taste good to him. The child needs a chance to bite off foods such as the above and pieces of apple or potato are also foods that may be used in this way.

Help the child to be aware of his mouth, tongue and teeth. Look in the mirror with him. Play games pointing out these parts of his mouth. Do exercises with mouth and tongue in front of the mirror. Yawn. Kiss. Blow.

Move tongue up to touch upper lip, chin, cheeks. Chew while looking in the mirror so the child can watch what you do. Let child feel your jaw when you chew and then let him feel himself chew. Eat with him. Let him watch other family members chew.

Introduce lumpy foods gradually. It will be harder for the older child who has definite likes and dislikes. Sprinkle graham cracker on pudding and introduce lumpy foods in other ways.

Work on chewing when the child is hungriest, say at the beginning of the meal. To allow a child to continue on soft foods or strained baby foods until he is of school age slows up his development. A school age child needs to be on solid food if development warrants. Do not hurry meal time. Give the child lots of practice. Praise him generously for his efforts. If you feel this type of training is too frustrating to work on at meal time set aside another time to begin this work.

Check with your doctor and sometimes your dentist to make sure there is no physical basis for the child's lack of chewing. Dental problems can interfere with proper chewing.

No training can be accomplished overnight or in a week. It will take time for the child to learn to chew well. Don't measure progress by days but by weeks. You will be glad you took the time to help the child improve his eating ability when you see him tackle a meal with gusto and real enjoyment in a socially acceptable manner.

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DEVELOPMENTAL SCALE FOR LANGUAGE LEVELS

The developmental scale is intended to provide the teacher with standardized information regarding receptive and expressive language development in the normal child. It should not be used as a strict criterion for the mentally deficient child as the child's language functioning often lags behind his mental development. Therefore, the teacher needs to view language development as sequential. Thus she must guide the child through a continuum from receptive to expressive functioning. After having determined the child's current level of functioning, the teacher must guard against putting the child in competition with an expected mental or chronological age.

This scale may also be of use to the psychologist in deciding what information to include on his form "Language Data from Standardized Tests."

DEVELOPMENTAL SCALE

RECEPTIVE LANGUAGE		EXPRESSIVE LANGUAGE
	6 Months	
Turns to sound of bell (Cattell)		Crows, laughs, vocalizes for pleasure (Gesell) Imitates sounds - babbling (Vineland item #10)
	7 Months	
		Uses double syllables - mama
	8 Months	
Adjusts to words by behavior change (Gesell) Responds to "Bye-bye"		
	10 Months	
		Vocalizes during play (Gesell)
	11 Months	
Adjusts to commands (Gesell)		One word speaking vocabulary
	12 Months	
Responds to inhibitory words (Gesell)		Two word speaking vocabulary (Cattell)
	15 Months	
		Uses jargon and gestures (Gesell)
	18 Months	
Points to nose, eyes, hair (Gesell)		One word verbal response includes naming common exclamations and greetings. Vocabulary of 50% are nouns. Articulation: uses initial vowels and consonants.

RECEPTIVE LANGUAGE	EXPRESSIVE LANGUAGE
2 Years	
Identify 4 parts of body (Gesell)	Vocabulary consists of 1/3 nouns (McCarthy)
Identify objects by name (Binet L. Score: ± 4)	Sentence length 2-3 words (McCarthy)
Obey simple commands (Binet L. Score ± 2) "Give me" - "put spoon in cup"	Asks to go to toilet by verbal or gesture indication (Vineland #35)
Repeating words (Merrill-Palmer) Score: 4 of 4 words	Uses "I, you, me" with partial discrimination (Gesell)
Repeating word groups (Merrill-Palmer) 10 of 14 words correct	Names familiar objects and people (Gesell)
	Refers to self by name
	Verbalizes immediate experiences (Gesell)
	Articulation: uses consonants p,b,m
2½ Years	
Identify objects by use (Binet L. Score: ± 3)	Naming objects (Binet L. Score: ± 4)
Identify parts of body (Binet L. Score: ±4)	Three word simple sentences (McCarthy)
Child has concept of one "put one block on paper" - (Gesell)	Vocabulary consists of ¼ nouns, ¼ verbs and pronouns (McCarthy)
Repeat two digits (Binet L.)	Uses past tense of verbs, plural nouns (Gesell)
Identify objects by name (Binet L. Score: ± 5)	Use of "I" in reference to self (Gesell)
Picture vocabulary (Binet L. Score: ± 9)	When looking at a picture book. the child will state an action when asked, "What is he doing?" (Gesell)
Repeating word groups (Merrill-Palmer) 13 of 14 words correct	Articulation: Consonants mastered b,p,m (Van Riper)
Action Agent Test (Merrill-Palmer) Score: 6±	He knows songs and rhymes (Shield of David)
Can give the objects of six actions as what flies, sleeps, bites, scratches, swims (Gesell)	
Can give the use of common objects i.e., "what do we do with the spoon" - response "eat" (Gesell)	
3 Years	
Picture Vocabulary (Binet L Score: ± 12)	Spontaneous relation of experiences, content and detail more important than language form (Vineland #44)
Repeats three digits (Binet L)	Adjectives, adverbs, pronouns, conjunctions, increasing in use (McCarthy)
Action Agent Test (Merrill-Palmer) Score: 10 of 20 words correct	
Obeys two prepositions "put the ball on the chair" (Gesell)	
3½ Years - 42 Months	
Obeys simple commands (Binet L Score: ± 3)	Response to picture level I (Binet L)
Picture Vocabulary (Binet L Score: ± 15)	Sentence length 4-5 words (McCarthy)
Identify objects by use (Binet L Score: ± 5)	Mature use of pronouns (McCarthy)
Comprehension I "What do you do when you are thirsty?" (Binet L)	Articulation: Consonants mastered: w,h (Van Riper)
Action Agent Test (Merrill-Palmer) 12 of 20 words correct	

RECEPTIVE LANGUAGE	EXPRESSIVE LANGUAGE
4 Years - 48 Months	
Picture Vocabulary (Binet L Score: ± 16)	Sentence length 4-5 words (McCarthy)
Pictorial Identification (Binet L Score: ± 3)	Pronouns, prepositions, conjunctions in stable relationship to other parts of speech. (McCarthy)
Comprehension Level II (Binet L)	Articulation: Consonants mastered: d,t, g,k (Van Riper)
Memory for Sentences I - "We are going to buy some candy for mother" (Binet L)	Compound and complex sentences reach 6 to 7% (McCarthy)
Action Agent Test (Merrill-Palmer) 12 of 20 words correct	Counts three objects (Shield of David)
Responds to appropriately with gesture and vocalization to what do you do when you are thirsty, sleepy, hungry? (Shield of David)	
The child carries out requests with four prepositions (in, out, beside, behind, under, in front of) (Gesell)	
4½ Years - 54 Months	
Repeats four digits (Binet L)	Parts of speech: 19% nouns, 25% verbs, 15% adjectives, 21% pronouns, 7% adverbs (McCarthy)
Three commissions (Binet L) - carries out complex requests in three parts	Consonant production 90% or more correct (Metraux)
Pictorial Identification (Binet L Score: ± 4)	Consonant sounds mastered: n, ing (Van Riper)
Action Agent Test (Merrill-Palmer) 14 of 20 words correct	Sentence length 4-5 words (McCarthy)
Opposite Analogies (Binet L)	
5 Years - 60 Months	
Definitions (Binet L Score: ± 2) "What is ball?"	Identifies and names: red, yellow, blue, green (Gesell)
Memory for Sentences (Binet L) "Jane wants to build a big castle in her playhouse."	Sentence length 4-5 words (McCarthy)
Action Agent Test (Merrill-Palmer) 16 of 20 words correct	Can tell story accurately (Gesell)
Comprehension II (Binet M Score: ± 2) "What do we do with our eyes?"	Can describe items and action in picture (Gesell)
	Can name following coins: penny, nickel, dime (Gesell)
	Articulation: masters consonants f,v

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Sequence of Language Develop

This scale provides criteria for the assessment of the functioning level of communication and a sequence for teaching.	No progress notable	Needs much help	Needs some help	Satisfactory: part of routine
	(enter date of each recording)			
1. Listens, and reacts with large muscles: patty-cake, bye-bye, rocks a doll to music, rolls balls to music, marching, running, tapping, hand-clapping.				
2. Listens, and reacts with large muscle activity on verbal command: stop, wait, look, sit down, come here, don't touch.				
3. Listens, shakes head "yes" or "no," responds to own name (not verbal).				
4. Listens, identifies source of sound.				
5. Listens, identifies and locates source of sound.				
6. Listens, and responds by indicating: parts of body, own possessions, boys and girls.				
7. Listens, and responds to simple directives: "show me--(common object)" or "put your finger on----," "give me----," i.e. the ball in the box.				
8. Listens, to familiar animal or mechanical sounds and vocalize in repetition.				
9. Listens, and mimics words to name common objects (not pictures).				
10. Names objects without opportunity to mimic.				
11. Rhythmic responses to percussions or music.				
12. Says words appropriately and spontaneously (uses words).				
13. Qualifies nouns (little box; red ball).				
14. Uses overt verbs.				
15. Combines words to convey idea or need: frames a good question.				

SOCIAL LANGUAGE

	No progress notable	Needs much help	Needs some help	Satisfactory: part of routine of daily life
	(Enter date of each recording)			
1. Says own name				
2. Makes his wants known				
3. Communicates his ideas and listens courteously when others talk				
4. Says "please," "thank you," "you're welcome," "excuse me," "goodbye"				
5. Participates in conversation				
6. Accepts and gives a compliment				
7. Takes leave of a party hostess				
8. Greets and says goodbye to guests				
9. Makes a phone call: To the doctor To the fire department To the police department To a friend and gets to the point				
10. Accepts and delivers a message				
11. Listens to stories and short poems and responds with context -				
12. Whispers				
13. Takes part in some dramatic play, especially with puppets				
14. Gives directions gently and clearly. The child can be a very good helper, but must learn not to bark orders, but to speak gently when in authority. This is especially important when an older child is called upon to help with younger children in school.				

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SENSORI-MOTOR STIMULATION

Beyond the five senses (tasting, touching, smelling, hearing and seeing), there is another sense which tells us where we are in space. This "muscle sense" tells us whether one arm is bent or straight. It tells us whether we are sitting or standing, whether we are pushing or pulling. Sensori-motor stimulation is concerned with developing this "muscle-sense" (proprioception) by means of exercises.

Motor skills develop as the child's nervous system and body matures. When a baby is retarded, the child may be slow or very latent in accomplishing such things as crawling, walking etc. Through specific exercises, individual therapy and group therapy, the child can learn the basic motor skills and it is thought that the process can be speeded up.

The first thing one must do before beginning sensori-motor programs is to evaluate where the child is on the developmental scale. If the child is not crawling, then your efforts are directed towards all exercises which will encourage creeping and crawling.

The normal developmental sequence is as follows:

1. Pivot-prone (Lifting and turning of the head from side to side on back or on tummy)
2. Rolling over
    a. first from tummy to back
    b. second from back to tummy
3. Creeping (Any form of forward or backward locomotion with tummy on the Ground)
4. Crawling (On all fours or cat position)
5. Sitting
6. Kneeling
7. Standing
    a. pulling up and holding on
    b. standing and giving resistance at shoulders, hips to strengthen muscles and improve balance
8. Walking
    a. side ways
    b. forward

These are the basic skills. Once these are accomplished, the child progresses to stairs, hopping, jumping, etc. The ultimate goal in sensori-motor stimulation is to have the child be able to follow a verbal command to perform a particular exercise and to be able to do it independently. Also to follow a sequential pattern of movements the latter is best done in small groups and represents the most advanced stage.

As we take you through various activities, it is well to keep in mind that the child's body is the focal point of all spatial orientation and exploration. We must start then with the child himself, helping him to be aware of himself as an entity, separate and apart from objects (including mother). This process involves building an ego in the child (and it can only be done through a genuine caring for the child), as well as helping him to learn the parts of his body, his name, and enjoying seeing himself in a mirror. This session will include activities and materials used to bring about the identity of the self.

Child walks sideways, holding on to a bar, or rope.
Child walks around table, pushing toy on top of table.
Child walks forward by holding onto and pushing a chair or a stroller or large push toy.
Child walks on mattress, goes off, gets on again.
Resistive walking.
Child walks on mats in a pattern.
Child walks to rhythm. Stop and start on auditory cue.
Child walks forward, backward, change directions and the pace and continue to keep time to the rhythm.
Child walks with a weight to target.
Child pushes a sand bag with one foot and then the other.
Child climbs stairs -- up and down.
Child steps over obstacles.
Child jumps and hops.
Child balances on one leg and then the other.
Child skips.

For additional activities in sensori-motor stimulation please refer to the work done by Ayers, Rood, Gould, Kephart, and Frostig.

SUGGESTED ACTIVITIES TO DEVELOP AND INTEGRATE MOTOR SYSTEMS

Pivot-prone position: Exploratory tasks and maintaining position (goal). Use position as much as possible for listening, watching activities. Set up: variety of materials to explore while pushing hands, object over. Use corrugated paper, sand, glass, ice. Slap hands on floor to music. Catch beam of light flashed on floor. Grab bobbles in water. Follow target with one hand, then another. Turn head to visual or auditory cue. Raise and lower head and chest from floor to cue.

Rolling: Position child with head on rolling path. Work on eye level with child, passively move head of child, clap hands or snap fingers in front of child to stimulate roll. Roll to target in one direction. Lengthen span. Roll over variety of materials, mattress, carpet, sponge pad. Roll on incline & decline. Roll with weights attached to ankles or wrists or both. Roll in a barrel lined with sponge. Involve another child by pushing barrel. Roll to a verbal or music cue to change pace of roll. or direction of roll. Set up simple pattern to follow while rolling, pattern to include diagonal line. Roll over a series of materials, mattress to carpet to small sponges. Roll with holding scarf in hands.

Crawling - Creeping: Rock on hands and knees. Position to crawl in circular pattern, child moves body, keeping feet more or less as pivot. Crawl backwards, push with both hands for forward movement, one side moving together progress to sides moving alternately. Useful motivation: child to crawl or creep to target, teacher take ankles and pull back to place - this "ride game" is usually successful. Attach bells or weights to ankles and wrists. Crawl or creep over a variety of materials, sand, grass, floor, carpet, black-top, etc. Follow simple pattern. Clearly define pathway. Change of direction and pace on cue. Transport saddle bags over neck or back filled with weight. Equal and unequal loads. Deposit load in clearly defined area.

Sitting and Kneeling: Rocking: On hands and knees--forward-back; side to side. Rocking on rocking horse, tumble tub, rocking chair. Rocking from side to side, sitting position. Rocking on balance boards. Children inter-lock with one another to rock. Rock together holding on to pole. Row your boat - row to the music. "T" stools: children throw bean bag to one another seated on stool, begin with very short distance from one another. Pulled rapidly on scooter board, back and forth.

Rowing Games: Pulling with adult, use pole, ropes, sponge dough-nuts.

Exchange Games: Hand objects to teacher and back. Passing objects from one hand to the other.

Standing and Walking:

Pull child up from sitting position to standing position by having child hold on to bar or rope. Say "up", "down".
Resistive balance - push against child.
Rocking from foot to foot.
Throwing ball from standing position.
Standing and bouncing on mattress.
Standing and rocking on rocking board.
Hopping on mattress.

TOILET TRAINING BY CHARTING

To start your program of toilet training, one person should be chosen to do all the training at first, and it should be done with love, understanding, lots of patience, and the training must be very consistent. This patience and understanding must be toward the children by all the staff and also toward the person doing the training, for she has a very trying task ahead of her.

The purposes for charting the children are:

1. To find out the rhythm of each child's toilet habits by noting on the chart the time each child is toileted, e.g., Timmy: 8:30 a.m. - 9:15 a.m., etcetera. After you have learned this, you will know how often to put the child on the pottie or toilet in order to keep him dry. This time will vary with each child from thirty minutes to three hours.

2. By continuing to chart the children after you find out the child's rhythm, you can tell at a glance if you have missed toileting a child and you don't have to rely on memory. After a month or so, you will find you don't spend nearly as much time in the bathroom as you did at first, and the children are beginning to enjoy being dry. A note here to say that the child that urinates very often can be trained to go longer periods of time by putting him on the pot five minutes later than his regular rhythm for a time until he is dry regularly, then add another five minutes. This is how his bladder is stretched so he can hold more water.

3. Should a substitute come in, they can tell quickly by looking over previous charts the rhythm of the child's toilet habits, and can easily carry out the day's routine.

4. The rest of the staff can also begin to step in and help and will not have to ask, "Has Johnny been to the toilet lately?" They will only have to look at the chart.

I scotch tape charts to the wall in the bathroom. Each day a new chart is taped over the previous day's until a full month is posted.

As soon as you can ascertain the child's rhythm, it is wise to put training pants on and eliminate plastic pants. I recommend dresses for girls and pants with elastic in waist for boys so you can begin to train the children to pull their own pants down and up.

Be sure to praise the child - hug and kiss each time he has success. Make a big issue of it.

Find out what pottie chair is best for each child and use the same one each time for that child. Several children can use the same chair. Print the child's name on masking tape and put on the back of the chairs. For those children who are able to use the standard toilet, put their names on tape onto the edge of the toilet lid of the water tank.

Letter coding:

Each time the child is toileted the time is marked down along with a code letter. For example: If the child is already wet "AW" is used. If still dry, but urinated in pottie, just the letter "W" for wet is used. Should the child sit for a period of time, say, ten minutes, and doesn't do anything, then his pants are pulled up and the letter "N" for nothing is put in the box with time marked down. If a bowel movement, then "BM". If the bowel movement was in his pants, the "SP" for soiled pants.

At the close of each day you can count the number of soiled pants for each child and put the number at the end of each column. You can also total up the soiled pants for each child for a month at a time and put the final totals at the end of each column on the last-day-of-the-month's chart. Next month you can do the same and then you are able to make a comparison to see what progress has been made.

The first month will be VERY HECTIC, and group sessions may have to be interrupted to pull out certain children that have to be toileted more frequently than others. All staff help by watching children for any signs indicating the child needs toileting and notify the person doing the training.

Finally, to be really successful with the program, the parents should be involved so that the program will be carried out around the clock.

by Lela Humphries, Toileting Specialist

Copied by CCC Dept. of Educ.
GP:mw 10/69 200 cc

Date

TOILETING SCHEDULE

W -- Wet
AW -- Already Wet

N -- Nothing
BM -- Bowel Movement

SP -- Soiled Pants

Totals ↓

NAME		*TIME								

*Be sure to put the times in each box

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