

BEHAVIOR RESEARCH DEPARTMENT

Annual Report

1 July 1966 - 30 June 1967

1.0 Administration

1.1 Support from Federal and Institutional Sources.

1.11 NIMH Grant Support: Due to the delay of our work by the hepatitis epidemic, we requested and received a four-month extension of the budget period for our NIMH Grant (MH-01354-03) without additional funds. This enabled us to use all the funds granted for the third year.

In January 1967, we received formal notice from NIMH that our "competitive renewal" had been approved for four additional years at the full level requested.

1.12 Office of Education Grant Support: On 1 August 1966, a proposal was submitted to the Massachusetts Department of Education applying for funds allocated to Massachusetts under Title I, P.L. 89-313, which extends the provisions of the Elementary and Secondary Education Act to include new educational opportunities within residential schools for the retarded. The proposal was co-authored by Florence Littell, M.Ed., and Linda Jarvis, B.A., R.N., the latter of whom came to us on 1 July 1966 from Anna (Illinois) State Hospital.

The Title I funds were requested to extend the scope of Fernald's behavior evaluation program to include both a ward and a closely coordinated classroom program for selected severely and profoundly retarded Wheatley Hall children. These programs were envisioned to develop procedures for evaluating and developing the self-help and other functional behavior repertoires of these children, who had heretofore existed in a custodial environment. All children selected for this program were also to be studied concurrently in the laboratory.

Funds which we were told would arrive 1 September 1966 were not appropriated by Congress until November 1966. On 6 March 1967 (six months and one week late), a check from the U. S. Office of Education arrived at Fernald; however, these funds could not be spent until the Department of Mental Health provided an account number on 29 March 1967. This shortened the budget period from 12 months to 5 months. All funds unexpended or unencumbered after 31 August 1967 must be returned to the Department of Education.

A second proposal, required for a continuation year, will be submitted early in July. The Massachusetts Department of Education has assured us that if the proposal is accepted, funds for the second year will be available on 1 September 1967.

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- 1.13 Institutional Support: The interdepartmental collaboration which began last year among the School Department, the Nursing Department, the Psychology Department and this department, has been strengthened by the addition from the Nursing Department of Miss Linda Jarvis, a graduate registered nurse who has been trained in behavior modification procedures and has had the excellent experience of having conducted a large ward program at an Illinois State Hospital.

Since last year, additional attendant positions from the Nursing Department have provided for a fulltime classroom teacher-"attendant" and four behavioral technician-"attendants." During the emergency period when Title I funds did not appear, two of these positions functioned as a rescue by temporarily subsidizing a psychologist and a teacher. When Title I funds finally provided adequate salaries for these people, all the attendant openings were filled with new personnel who are directly involved with 24-hour a day on-the-ward training and observation of the children in the Wheatley Hall demonstration unit (see Facilities).

Our collaboration with In-Service Nursing Education, which was fruitful last year, became inactive following the resignation of the previous Director. In the absence of active Nursing Department leadership, efforts at direct training of Wheatley Hall personnel in behavior modification versus custodial procedures reached a point of such diminished return that, in the face of militant opposition from attendant organizations, these plans were dropped in favor of hiring new staff recruited by Miss Jarvis and Miss Littell.

In addition to personnel and a variety of educational materials, cleaning supplies, furniture, and clothing, Fernald has provided space in which an around-the-clock program of evaluation and training of Wheatley Hall children (see Facilities) is being developed.

A gradually improving relationship with the Steward's Office will, hopefully, ease some of the problems of attempting innovative efforts with traditionally "custodial" children.

The U. S. Office of Education considers Title I as supplementary to the state funds available to Fernald and other similar institutions. Whatever support Fernald gives to the behavior evaluation and modification program will be reported to the Office of Education and the National Institute of Mental Health to help justify continued Federal support of this project. Both the NIMH and the Title I grants are designed to launch programs which will subsequently be funded by the state because of their demonstrated success. We are hopeful for results that will materially assist the residents of Fernald School.

1.2 Facilities

- 1.21 Laboratory facilities have been expanded by equipping a sixth conditioning enclosure which, in parallel with a previously equipped

(Laboratory facilities, cont.)

enclosure, permits independent analysis of the reinforcing power of auditory and visual narrative stimuli, e.g. the continuously available sight and sound of another individual. Some recent shake-down experiments revealed "bugs" that we are still attempting to eliminate. The efficacy of visual and auditory narrative social stimuli in generating and sustaining behavior will be explored with selected children from Wheatley Hall in an effort to answer questions raised by their behavior on the ward and in the classroom.

We are further refining the transducing and transmitting equipment to measure and analyze repetitive rocking. Until our measurement apparatus meets our calibration and reliability requirements, we will suspend direct analysis of this poorly understood, peculiarly institution-associated behavior.

Prototype dual manipulanda - dual pedulanda consoles have been designed, constructed, and installed in two enclosures, and a dual manipulanda console in a third enclosure, all three for the purpose of providing greater durability in the switches which children operate to control television. These consoles are being improved on the basis of empirical determination of their indestructibility.

All enclosures have been equipped with identical manipulanda which have been designed during the past year and are now commercially available. These plungers are adjustable for operation by a pull movement or a push movement and will enable us to analyze differentiation of the two topographically different manual responses. Foot-switches further broaden the topography of movements available for analysis.

Work has been begun on a transducer, transmitter, and wearable attachment for analysis and control of head-banging and head-hitting.

- 1.22 Office facilities have been necessarily increased but are greatly overcrowded due to the many additions to our staff for the ward and classroom projects. The former "sick room" (isolation room?) at Wheatley Hall has been converted to office space for the ward staff and has equipment on loan from the laboratory until the Title I grant equipment arrives.

The laboratory data office and secretarial office are much too tightly packed with people and equipment to permit efficient work. Hopefully, some of these work stations now occupied by teachers, clerks, and other ward and classroom personnel can be moved into other space allocated for this work.

- 1.23 Ward facilities for the development of a demonstration project consist of the former north day room at Wheatley Hall. Since 1 May 1967, this unit has been occupied by six children. Meals are served in a dining area; another area contains beds and individual bedside storage units; and a third area is used for play. As yet there is no movable partitioning because there still remains one child whose physical tantrums prohibit such an arrangement. Thus, it is difficult to maintain orderly use of these presumably functionally different areas. A fenced-in outdoor area adjacent to the ward is being furnished with play equipment. The bathroom facilities are shared with the children

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(Ward facilities, cont.)

of Ward 30. Partitions have been requested but not yet received.
No facilities exist for the children to learn self-bathing.

1.24 Classroom facilities:

Experimental classroom: On 1 January 1967, a room adjacent to the laboratory in the Greene Blind Unit was allocated for development of a classroom for Wheatley Hall children. Plans to partition the room into four small training rooms, one classroom, two "time-out" rooms, and an observation-apparatus area await approval of the Department of Mental Health and the Department of Public Health. Because of delays of state procedure, it will not be possible to partition this area until October, after expiration of the current Title I grant period. The delay was caused primarily by the failure of the Steward's Office to inform us that construction plans must be drawn up by a Department of Mental Health engineer prior to approval. The engineer did not meet with us until June. In the absence of partitions, the open space is being used for individual training with makeshift facilities in a highly unsuitable environment, stacked with boxes of equipment and other items for which we have no storage space.

Three converted Wheatley Hall basement training areas, often flooded from water seepage, very inadequately lighted, and lacking partitioning, have been completely painted by four Kelley Hall boys and the laboratory staff, aided later --and in major part--by the Interact Club of Waltham High School. These areas, with donated furniture and materials, are available to all the children of Wheatley Hall and are being used by project children and staff and are available to regular Wheatley Hall attendants who wish to explore training the non-project Wheatley Hall children.

- 1.25 Information resource, retrieval, and dissemination facilities are being developed in the laboratory area formerly used as a classroom. This has required additional office equipment and shelving, which we are beginning to purchase and install.

1.3 Personnel

1.31 Regular-staff additions during the past year:

- (1) Miss Linda Jarvis, B.A., R.N., jointly affiliated with the Nursing Department, is co-directing the ward-classroom training program (with Miss Florence Littell, M.Ed., jointly affiliated with the School Department).
- (2) Mrs. Judith Rosenberg, A.B., psychologist, jointly affiliated with the Psychology Department has replaced Mrs. Patricia Politoff, who left for doctoral study at Columbia University.
- (3) Mr. Ronald Calvanio rejoined us as laboratory assistant in January, following his graduation from Harvard, until his departure for the Armed Services in April.
- (4) Mr. Paul Padlak, part-time laboratory assistant, is a student at Harvard.

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(Regular-staff additions, cont.)

- (5) Mr. Mark Rosen, part-time instrumentation engineer, replaced Mr. Anthony Michel who returned to full-time study at MIT. Mr. Rosen, who recently graduated from MIT, works jointly with the laboratory and the developing automated-classroom staff.
- (6) Mr. William Close, part-time instrumentation engineer, also works jointly with the laboratory and the classroom project in designing and building equipment. He is an MIT student.
- (7) Miss Darlene Cohen, M.A., psychologist, functions as Curriculum Coordinator in the development of training materials and methods.
- (8) Mrs. Ruth Cohen, B.A., is serving as a teacher and evaluator of project children.
- (9) Mr. Nahum Stiskin, B.A., as Community Coordinator, is planning a program of coordinated parental involvement with the Wheatley Hall children.
- (10) Alice McGowan, part-time demonstration-ward technician.

1.32 Personnel hired for the summer include:

Susan Rosen, B.A., teacher; John Kelly, B.A., supervising laboratory technician and teacher; Rosemary Burns, M.A., recreation therapist; Joseph Kelly, principal clerk; Judy Hendricks, junior vocational instructor; Wendy Goldman, attendant, assigned to art programs; Gail Lemerman, Natalie Simon, Jackie Spector, and Nancy French, demonstration-ward technicians; Gail Paul, speech therapist.

1.33 New student staff on "field" placement.

In addition to our two continuing co-op students from Northeastern University, Eileen Labenski, Janis Tironi, and Jane McDonough have joined us in the past year. Karen Breda and Peggy Garvey were part-time demonstration-ward technicians from March to June 1966.

Twenty-five Neighborhood Youth Corps girls assisted in teaching Wheatley Hall children during the period from November 1966 to January 1967.

- 1.34 New volunteers, who have assisted with painting the Wheatley Hall basement and have worked with individual children, include: 25 members of the Interact Club of Waltham High School, 5 Brookline High School students, 15 Harvard and Radcliffe students, 15 teenagers from the Lutheran Church of Wayland, and a number of others who have not been affiliated with particular groups.

1.4 Operating procedures.

1.41 Maintenance problems.

- a) Doors in the laboratory and in Wheatley Hall repeatedly stick so much that it is often very difficult to open or close them. Rather than securing the hinges of these doors in a more permanent fashion, the Maintenance Department simply planes off the intruding surface. No sealer is used. Result: all doors become progressively more lop-sided, and the sticking-planing process goes on. Preventive maintenance is needed!

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- b) Floods in Wheatley Hall basement are well known by now. The training areas and equipment are often soaked and unusable for long periods.
- c) Sewage backups in the laboratory caused by obstructions upstairs have occurred five times this year: 24 January, 7 April, 18 April, 20 April, 21 April. The worst of these made a high urine-feces mark of six inches and encompassed most of the laboratory. The Chief Engineer says the only solution is to make the plumbing in the laboratory inoperative. Mr. Wambolt, the plumber who installed the laboratory fixtures three years ago, said on 26 April that a Josham back-water valve should be installed. He telephoned Mr. Kerr, Department of Mental Health engineer, to discuss the matter. Mr. Kerr said he would contact Mr. Rose on the matter and that Mr. Rose would contact Dr. Barrett. By 11 July, when the next backup occurred, we had heard nothing.

The laboratory staff members do most of the cleanup after each flood. This always includes moving every file cabinet, desk, relay rack, box, etc., and not only drying the area but disinfecting it as much as possible. Feces impacted into cinderblock walls can never be completely removed. The laboratory now has the odor of a barnyard. The staff has become more and more demoralized by the frequency of these sewage backups and especially by the nonchalance of responsible personnel. We simply cannot function as the GBU cesspool!

For more detailed reference, we herewith include transcripts of our documentary entries describing each backup and what was and was not done.

24 January 1967. A flood in the laboratory was caused by diapers being stuffed from upstairs in the GBU into the pipe leading to the lab toilet. Water and feces washed out into the corridors, workshop, supply closet, data room, classroom, and office and testing rooms of the laboratory, and water went out into the main corridor of the building basement. Clean-up was done by porters and by Dr. Barrett and other members of the laboratory staff. No children could be tested all day.

7 April 1967. A small flood in the workshop, supply room, and hallways was cleaned up by the porters.

18 April 1967. The supply closet, workshop, hallways, and the building basement corridor were flooded. Porters and laboratory personnel cleaned up the water and feces. No children were tested.

20 April 1967. The lab was acutely flooded this morning when we arrived. Water went into the data room well up around file cabinets, the experimental rooms, the editorial office completely surrounding the file cabinets there, the play room, the apparatus area and the shop with water completely surrounding the parts cabinets, and the supply room with at least two inches of water floating the lumber and metal sheets. When the lavatory door was opened, there was a

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(Sewage backups, cont.)

deluge of urine and of feces and toilet paper which had floated up against the door partially blocking the refuse within from coming out. Feces and toilet paper were packed, six inches deep, onto the lavatory floor. The water made it through the entire laboratory corridor, out into the main corridor of the basement of GBU and into the Wheatley Hall classroom, completely covering the floor.

Dr. Barrett called Dr. Farrell at 9:05 telling him what had happened and reporting that we had been unable to contact Mr. Ellis, Chief Engineer. Dr. Farrell was informed that this was the third flood in a week and at least the seventh flood of this nature since the lab opened. He said he would send Mr. Ellis to the lab right away.

At 9:25 Mr. Ellis arrived. Mr. Springer and some working boys were mopping water in the main GBU corridor. They wanted to get into our toilet, but when the door was opened just a little, a rush of feces and urine and toilet paper emerged, so the door was locked immediately to keep more refuse from flooding the lab any further. Mr. Springer did not know about the trenches around the lab, so was shown how to open them, helped by Dr. Barrett to do so, and offered the suggestion that sand be put across the door to the main lab office so that the rush of water would not enter there while we were cleaning. Mr. Ellis was his usual non-helpful self. We asked Mr. Ellis what had caused the flood, and he reported that they had just found a terry cloth bath towel lodged in one of the toilets upstairs. When asked what he could do about training the personnel not to put such things as sanitary napkins, bath towels, and diapers down the toilets he replied that he had nothing to do with that, that he wasn't "in charge of the program." Dr. Barrett phoned Dr. Farrell to report that Mr. Ellis had said he couldn't do anything about the flooding and to ask if Dr. Farrell could come look at the situation. Dr. Barrett pointed out that it was uncertain how much of the equipment could be salvaged from this flood, the biggest we had ever had. Dr. Farrell said he would talk with Mr. Allen about the matter of training the personnel.

Dr. Barrett phoned Mr. Tobin of the State House who was having a meeting on the school grounds. Mr. Tobin was invited to see the effects of the lack of preventive maintenance and lack of personnel training that were responsible for the flooding that he had already been informed of. He said he would be at the lab by 11:30, but phoned about 11:00 and said he would be at the lab in the afternoon.

At 3:30 P.M. Dr. Barrett took up the financial statements to NIMH to be signed by Dr. Farrell and explained the flood situation to him, telling him that the situation was apparently evident when Mr. Springer arrived this morning, that it was not apparent when the last person left the lab at 4:00 P.M. the previous day (Holiday), and that Mr. Springer had not been able to reach Mr. Ellis this morning. The extent of the water flow into the classroom, the supply room, up the hall as far as the women's room, was pointed out

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(Sewage backups, cont.)

and it was emphasized that none of the other toilets on this floor or upstairs were affected as far as we knew.

Dr. Farrell said he had talked with Mr. Ellis, who said nothing could be done. Dr. Farrell expressed surprise that other toilets in the building were not affected and said he would talk with Mr. Ellis again about putting in a trap to catch objects before they plugged up the system and forced water out into the lab.

When Dr. Barrett finished talking with Dr. Farrell she returned to the lab about 4:00 to find Mr. Tobin talking to lab personnel. . . . He later initiated discussion of the flood, personnel problems, and organization problems with Dr. Barrett and asked why she stayed here. She replied that if all people who tried and had trouble left, there was no hope.

21 April 1967. The laboratory was again flooded. Nine of 30 children scheduled for behavior analysis could not be studied because of the staff time lost in cleaning up the water, feces and other refuse.

On 25 April 1967, Mr. Tobin came to the laboratory. He reported that he had just talked with Dr. Farrell and Mr. Ellis, who said that nothing could be done except to disconnect all the laboratory plumbing--which would make the laboratory sinks and the toilet completely inoperative. It should be noted that the laboratory plumbing fixtures are only three years old and were installed at the taxpayers' expense. Dr. Barrett explained to Mr. Tobin that Mr. Wambolt, the plumber who had installed the laboratory plumbing fixtures, said that disconnecting the plumbing was a "stupid solution." Mr. Tobin seemed to agree, but could suggest no recourse. Mr. Wambolt had indicated that if there was a separate line running to the lab toilet and if there was room to dig up the floor, a check valve could be installed.

On 26 April 1967, Mr. Wambolt inspected both the drawings for the original plumbing made by a DMH engineer and the visible situation as it stands now at the lab. He also walked a fair way down the corridor checking on the location of cleanouts. He said that a Josham backwater valve should be installed in the line that carries the lab toilet. He thought that it might possibly be necessary to relocate the current service sink and/or to put a removable plate in the floor in front of the sink in order that the backwater valve might be accessible. He suggested that we should have the engineer from DMH come out to look at the situation. He indicated that he knows Mr. Kerr, DMH engineer, and that he, Mr. Wambolt, is constantly doing plumbing work for the state in various institutions. Mr. Wambolt also added that he and his son have a plumbing training program which they are operating voluntarily for some of the higher level boys from the Fernald School.

At Mr. Wambolt's suggestion, Dr. Barrett dialed Mr. James E. Kerr's office at DMH. Mr. Wambolt talked with him and explained the situation. Mr. Kerr said he would call Mr. Rose immediately

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(Sewage backups, cont.)

and that if something could be done through the school, that Mr. Rose would be in contact with Dr. Barrett. (It should be noted that as of the 11th of July 1967, the date of our next total lab flood, we had heard nothing from Mr. Rose.)

A few weeks later Dr. Barrett discussed the matter of the flooding with Dr. B. R. Hutcheson, Director, Division of Mental Hygiene, DMH. He was shocked at the health hazard of continual flooding in the laboratory and suggested that we describe the matter in writing to Dr. Leon Sternfeld, Deputy Commissioner of the Department of Public Health, State House, Room 545.

The matter was also discussed with Representative Kathy Kane during her extended visit to the laboratory on Fernald Legislators Day. Representative Kane suggested that we contact Commissioner Frechette, of the Department of Public Health.

We feel that the Fernald School should have ample opportunity to respond to the contact that Mr. Kerr promised he would make with Mr. Rose, but we are prepared to act upon the suggestions of both Dr. Hutcheson and Representative Kane should the matter remain uncorrected during another flood.

1.42 Telephone procedure.

Outgoing calls on business matters by our Senior Laboratory Assistant to contact her assistant or to order laboratory items have often been blocked at the switchboard. Our project ward staff were told by Mr. Allen that they are not permitted to call their nurse supervisor (project co-director) at home. Dr. Barrett was prevented from using grant funds to call our major apparatus supplier in West Concord when a piece of equipment was on fire!

It is absolutely essential that we be able to conduct the business of this department by phone. We have grants to cover long distance calls and there is no excuse for not being able to use these funds for the purpose for which they are granted.

Incoming calls: Laboratory visitors have called our Senior Laboratory Assistant and our Curriculum Coordinator to schedule tours -- a matter that cannot be handled efficiently by anyone else. We have had reports from visitors that the switchboard operator was so rude to them that they wondered how we could work in an institution which permits this type of public relations to exist.

Our own staff members have been cut off by operators when trying to reach each other on matters of utmost direct importance to the work of this Department because the operators have seen fit to categorize these calls as "personal"! These staff members have been spoken to in a rude fashion by the operators, and Dr. Barrett has received the same unprofessional treatment.

Members of this Department have been told the Fernald policy. It is time the Fernald telephone is handled by people who are capable of creating a favorable climate for communication rather than individuals who perpetuate and/or intensify the well-known isolation of this institution.

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1.43 Arrest by Fernald officer of an out-of-state visitor to a Departmental program.

The Wheatley Hall program is conducted on a 24-hour basis. If a visitor is primarily interested in procedures for gathering data during night hours, he should be able to meet the psychologist or teacher in the project office to view the procedures. One incident of arrest, when a visitor was viewing graphs in the project office at 11 P.M., occurred. The visitor was ordered off the grounds and arrested as soon as he stepped outside the building. This is an appalling way to treat people who come to us to learn! The reputation of Fernald is hardly enhanced by such goings on.

- 1.5 Storage problem acute. With a large volume of equipment and supplies to serve a department and staff which now numbers 31, we have no storage space! Seven storage cabinets have been purchased but there is no place to put them. Boxes are piling up in the GBU basement classroom. When partitioning begins, all classroom equipment and supplies will have to be stored elsewhere so that the classroom area will be available for the children.

The GBU Civilian Defense room is nearly empty at present and is the logical place for our storage because of its proximity. It has steel shelves quite suitable for our needs. We hope that we may use this room to increase the efficiency of our excellent laboratory and classroom areas.

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2.0 Behavior Evaluation and Modification

2.1 Selection of Children.

2.11 Laboratory selection during the last year has focused on Wheatley Hall children from two extremes: those who present the most acute training and management problems and those who are thought by our teaching staff to be the most rapid learners. Eight new children have been added to our laboratory list, bringing the total to 81. We are continuing to study as many as possible of our former Lavers Hall group, who provide an excellent comparison.

2.12 Children selected for ward training: Initially, training was to be given to all Wheatley Hall children, but this plan turned out to be impossible. Because Miss Jarvis, Head Nurse, was not given the authority to supervise the staff at Wheatley Hall, orders were not carried out.

Six children, all severely or profoundly retarded, are now under the direct supervision of Miss Jarvis. Five of these children presented chronic behavior management problems to the regular Wheatley Hall staff. One of the children is thought to be potentially capable of returning to her home.

2.13 Selection of children for classroom training is based on 1) their potential for community placement as estimated in terms of both the child's observed rate of behavior development and the parents' indications of interest (see Parental Education); 2) the presence of and seeming amenability of particular behavior problems which would substantially exclude a child from a conventional Fernald classroom. Sixteen Wheatley Hall children, including the six from our recently-established behavior modification unit, are currently involved in classroom training. Thus, the classroom serves a much broader segment of the Wheatley Hall population than the ward unit.

2.14 Selection of children for recreation programs is done by the regular Wheatley Hall staff. In addition to the six modification unit children, 20 other children are receiving some art and physical recreation opportunities.

2.2 Methods.

2.21 Laboratory behavior evaluation methods are substantially the same as last year. They were fully described in our comprehensive report of 1 October 1965 and more recent modifications and additions were summarized in last year's annual report.

2.22 Field methods for assessing and modifying retarded behavior.

2.221 Classes of behavior selected:

- 1) for acceleration and development of more complex repertoires include communicative speech, appropriate dressing, social

(Classes of behavior selected, cont.)

amenities, housekeeping skills, number recognition, naming, counting, making change, reading, writing, and leisure-time activities. Target behavioral acts within these classes are selected individually with respect to each child's presenting behavior repertoire.

- 2) For deceleration are bizarre or destructive acts, such as screaming, biting oneself and others, hair-pulling, walking with head down, head-hitting, head-banging, window-breaking, urinary "accidents," misplaced bowel movements, and other behaviors which stigmatize the child in the eyes of parents and community.

2.222 Recording methods.

- 1) Human-activated electromechanical devices, as well as fully automatic procedures when possible, are planned. As yet the equipment ordered has not been received.
- 2) Human observer-recorder procedures are in the process of continuous development and reappraisal. Target behaviors are tallied on time-unit grid sheets which are then graphed to show whether a given behavior is accelerating, decelerating, or remaining stable in rate. Observing and recording procedures are becoming increasingly more systematized, as are the training procedures applied to each behavior in each child. The function of recordings is to indicate 1) the patterns of behavior peculiar to each child and 2) the effectiveness of specific training techniques for specific behaviors in individual children.

2.223 Consequation procedures are being explored with individual children. Tokens, exchangeable for an expanding variety of items and privileges, are being developed as generalized reinforcers. Because of the wide range of individual conditioning rates among the children, some will take longer than others to use the tokens effectively.

2.224 The programming of sequences of target behaviors and the selection of criterion behaviors are also in the formative stage and constitute the core problems in developing curricula in speech, number recognition and use, reading, and writing. Procedures currently used are based on recording of the functional relationships between staff-presented stimuli and the responses of each child.

2.225 Discontinuation of medication for problem behavior: In order to avoid the contamination of behavioral variables by pharmacologic variables and the well-recognized phenomenon of drug-behavior interaction, all children in the demonstration unit have been taken off whatever medication was previously prescribed to control their problem behavior. No increase in non-adjustive behavior was shown following discontinuation of medication.

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2.3 Exploration of parent behavior.

In an attempt to elicit parent-child interaction and greater parental involvement in the training of their children at Fernald, our Community Coordinator is beginning to work with parents of children not only in the demonstration unit but also throughout Wheatley Hall. As successful child training procedures are located and as behavior development becomes more readily observable and recordable, the functions of a parent training program might be in 1) reporting and demonstrating to parents the behavior modification procedures found to work best with their child, 2) teaching parents how to follow these procedures during the child's home visits, 3) working with agencies in the child's community to eventually enroll the child in a day training program, and 4) attempting to evolve a workable situation which would encourage parents to train their child at home on a permanent basis.

Parents of unit children and three non-unit children are currently in communication with Mr. Stiskin, who is developing the parent program. More Wheatley Hall parents will be consulted and/or counseled as time permits. The parents of one potential candidate for Fernald have been counseled at their home since they contacted Miss Jarvis for advice.

2.4 Transfer of rapidly progressing children to higher-level programs.

In order to provide broader opportunity for development than is currently available at Wheatley Hall, we referred four girls to CERC for evaluation. They were transferred to Stephen Bowen Hall, where they are able to attend School Department classes.

Offsetting this reduction in Wheatley Hall census, which is necessary for more adequate training, one child was transferred from Farrell to Wheatley -- a child who functions far above the Wheatley Hall level and who should have gone to a setting where her competencies could develop rather than atrophy.

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3.0 Communication

3.1 A publication anthologized during the last fiscal year was:

Reduction in rate of multiple tics by free operant conditioning methods.
J. nerv. ment. Dis., 1962, 135, 187-195.

Reprinted in:

Ulrich, R., Stachnick, T., & Mabry, J. (Eds.) The control of human behavior. Chicago: Scott, Foresman, 1966, Pp. 143-150.

3.2 Distribution of publications and reports. Since 1 July 1966, we have filled 148 requests for reprints and descriptions of our work, and we have mailed a total of 289 articles and reports.

Outlines of the plans for the Wheatley Hall demonstration project and its progress were distributed to the nursing staff and other Fernald personnel.

3.3 Presentations by department members to professional groups.

- (1) Beatrice H. Barrett. "Prosthetic analysis of retarded behavior." Psychology Research Seminar, Veterans Administration Hospital, Boston, July 1966.
- (2) Beatrice H. Barrett and Linda Jarvis. "The Wheatley Hall Project." Nursing Staff, Walter E. Fernald State School, September 1966.
- (3) Beatrice H. Barrett, Chairman. Symposium on Behavior Evaluation: Laboratory and Field Methods. Northeast Regional AAMD, Manchester, Vermont, October 1966. Presentations included:
 - Beatrice H. Barrett. "Strategies and tactics for laboratory behavior evaluation."
 - Florence Littell. "Teacher on the ward."
 - Linda Jarvis. "Evaluating attendant behavior."
- (4) Linda Jarvis. "The nurse and operant conditioning." Boston University Graduate Nurse Seminar, Walter E. Fernald State School, October 1966.
- (5) Beatrice H. Barrett. "Free operant analysis of retarded behavior." Graduate Seminar, Department of Special Education, Boston University, December 1966.
- (6) Beatrice H. Barrett. "The individuality of retarded behavior." Neurology Conference, Walter E. Fernald State School, February 1967.
- (7) Beatrice H. Barrett. "Experimental studies of retarded behavior." Experimental Psychology Graduate Colloquium, Boston University, February 1967.

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- (8) Beatrice H. Barrett. "Naturally acquired and remediated reversals of differentiation and discrimination in retarded children." Symposium on Complex Schedules of Reinforcement, Society for Research in Child Development, New York, March 1967.
- (9) Florence Littell and Linda Jarvis. "Educators and nurses providing ward education programs." Teachers Alliance, Walter E. Fernald State School, March 1967.
- (10) Linda Jarvis. "The Wheatley Hall Demonstration Program." Graduate Nursing Students Master's Program, Boston University, June 1967.

3.4 Talks to community groups. Linda Jarvis described the Wheatley Hall demonstration program to the Interact Club of Waltham High School, the Jewish Community Center of Brookline, and "The Group" of the Lutheran Church from Wayland.

Dr. Barrett presented "Techniques for locating behavior abilities and deficits in severely retarded children" to the Cambridge Association for Retarded Children, Cambridge, Massachusetts, in January 1967.

3.5 Professional and scientific meetings attended by department members included: American Psychological Association, New England Psychological Association, Northeast Regional American Association on Mental Deficiency, Society for Research in Child Development, Eastern Psychological Association, American Academy on Mental Retardation, American Association on Mental Deficiency, Massachusetts Association for Mental Health Legislative Conference.

3.6 Visitors.

3.61 There were 182 visitors to the laboratory, including 139 professionals. Most of the other 43 visitors were students.

3.62 No records were kept of the many visitors to the demonstration ward and classroom prior to 1 May 1967. After that time, there were 159 visitors, including 56 professionals.

3.7 Information-seeking visits to other laboratories and institutions by staff members included:

Children's Rehabilitation Unit, University of Kansas Medical Center, Kansas City, Kansas; Parsons State Hospital and Training Center, Parsons, Kansas; Department of Human Development, University of Kansas, Lawrence, Kansas; Wrentham State Hospital, Wrentham, Massachusetts; Anna State Hospital, Anna, Illinois; Department of Neurology, Massachusetts General Hospital, Boston; Lavers Hall and Project '67, Walter E. Fernald State School; Alcoholism Unit, Psychiatry Service, Boston City Hospital.

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4.0 Training

- 4.1 Undergraduate laboratory training was given to two Harvard psychology majors during the spring semester. They used our bidirectional closed-circuit television equipment to test its sensitivity in analyzing the reinforcing power of the continuously available but rate-produced sight and sound of another person for severely retarded children. Three Wheatley Hall girls showed individual differences in rates of responding to see and hear the same person.
- 4.2 Undergraduate special education training, begun last year, continues with the addition of other co-op students from Northeastern University who are participating in the training of Wheatley Hall children under the supervision of Miss Littell.
- 4.3 In-service Nursing Education instruction: Tours, lectures, and regular discussions which began last year were discontinued when directorship of the in-service program was changed. For the same reason, the collaborative development of a training program for Wheatley Hall personnel was terminated. From a unified, centralized, comprehensive program of in-service training, the new directorship has changed to a policy of simply encouraging existing staff in each building to train new personnel. This is precisely what had been happening over the past few decades and may be largely responsible for perpetuation of long outdated practices.

Without leadership support of either in-service training or the Fernald Nursing Department, a highly vocal, defensively resistant few among the Wheatley Hall staff succeeded in sabotaging our efforts so thoroughly that they supervised the children's destruction of a large quantity of furniture provided for training purposes. The results are documented in photographs.

Attempts have been made to teach the regular Wheatley Hall staff methods of observing and recording behaviors of the children in order that target behaviors could be determined and a system of reinforcement could be established in the building. Two recording books were initiated in late July 1966, an Incident Book which would provide a running account of the day's activities and a Communications Book which would pass information on to all staff members concerning any procedural changes or important observations. The life span of the Communications Book was about one month, because the non-project staff, supported by the Union, refused to write in the book or to sign their names or initials to any entries they did make. However, with insistence and with a directly delivered statement of support from Dr. Farrell, we have managed to continue the Incident Book and, for the most part, it has worked out satisfactorily. It was most difficult to get the 11-to-7 shift to write in it, but everyone now contributes and entries are signed with more regularity than before.

An effort has been made to establish a medicine card and Kardex program in Wheatley Hall. Because there is not always a registered nurse on duty, orders sometimes do not get transferred to medicine cards and the Kardex until the next shift. Individual instruction was given to all staff members who had responsibility for giving medications.

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(In-Service Nursing Education instruction, cont.)

In an effort to produce changes in attitudes concerning the capabilities of the children, we have encouraged questions from the Wheatley Hall staff and have attempted to demonstrate in individual children the importance of providing opportunities for desirable behaviors to occur and of appropriately selecting and scheduling reinforcement. Non-project children are still given only spoons to eat with, their shoes are taken off after supper, and they are put to bed early. But five Wheatley Hall children and a working girl ate their noon meal family style from October until the working girl went home for the summer. About 12 of the children serve themselves buffet style at the noon meal. When outside, the children usually stay out until 3:00 or 3:30 instead of 2:00 and are sometimes allowed out before 9:00 a.m. On one occasion the children were allowed to play outside after supper.

Because of difficulties in working with the regular Wheatley Hall staff, a small demonstration ward with six girls was established. The project so far has shown us a variety of pitfalls that we can avoid and has clearly shown the necessity of intensive in-service training.

- 4.4 Fernald residents residing outside Wheatley Hall: A second vocational re-habilitation trainee joined the laboratory to escort Wheatley Hall children to and from the laboratory and to assist in occupying children while they are waiting their turn in various experiments.

Our laboratory assistants have initiated training of selected Lavers Hall boys during their otherwise unoccupied laboratory time.

- 4.5 Field training trips continue to be conducted by laboratory staff members to give the children who earn money a more realistic series of opportunities to spend it for amusements, food, transportation, and personal articles. Each child has a "see-through" bank in which he stores pennies, nickles, dimes, and quarters for special trips and for operation of vending machines near the laboratory.

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5.0 Needs for Next Year5.1 Maintenance.

- 5.11 Installation of back-water valve to insure prevention of sewage backups which are hazardous to the health of Fernald residents and employees and which are mounting in cost both to the taxpayers of the Commonwealth and to the Federal taxpayers who contribute to our support.
- 5.12 Competent maintenance and repair service personnel who are equipped to render preventive maintenance. Doors, windows, and screens in Wheatley Hall and in the laboratory need permanent repair or, in some cases, replacement. Holes in the walls of Wheatley Hall basement must be filled to help prevent further water seepage. Improved lighting is greatly needed in the Wheatley Hall basement areas used for training and recreational purposes. Bathroom partitions are needed in Wheatley Hall.
- 5.13 Porter service at Wheatley Hall. Repeated requests brought one porter who remained only a short time because he was unable to put up with conflicting demands from the regular Wheatley Hall staff, which lacks leadership in the major position of authority.
- Porter service will also be needed for the Wheatley Hall classroom in the Greene Blind Unit basement.
- 5.14 Replacement of bathing slabs with showers in Wheatley Hall. We cannot expect children to learn bathing with obsolete fixtures designed for operation only by staff!
- 5.15 Improved laundry service. Faster and more accurate return of clothing to Wheatley Hall is needed.

5.2 Storage for classroom and laboratory.

As indicated in section 1.5, we will be unable to carry out our training program without storage space. The Civilian Defense room, which lacks ventilation and therefore is suitable only for storage, was suggested for this purpose. Without a secure storage area, the exits from the laboratory and project classroom areas will not meet the requirements of the Fire Inspector.

5.3 Personnel.

- 5.31 An additional registered nurse is needed to establish an intensive ward training program for Wheatley Hall.
- 5.32 Additional personnel on the 2:30-to-11 shift at Wheatley Hall are needed to assure that the ward program will operate at maximum efficiency around the clock. It is fruitless to attempt to develop skills and social graces during the day if they are not sustained during the evening.

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5.4 In-Service Training.

- 5.41 A systematic and updated in-service program for training new employees and "refresher" courses for older employees would assist in providing greater competency among the staff in managing the children's physical and behaviorial needs.
- 5.42 New requirements that all personnel participate in developing the training function of Fernald School.
- 5.5 Leadership is needed from the Nursing Service to provide continuity between shifts. Currently, the night shift personnel often refuse to be responsible for such tasks as folding linens, sorting clothes, or repairing clothing, all of which could best be accomplished during the quiet night hours when the children need minimal attention. The current autonomy of individuals within the attendant staff cannot possibly produce efficient service.
- 5.6 Responsible administrative assistance in the endless routines of grant administration to free professionally trained individuals to use their skills in behalf of the children. Clerks filling out requisitions should be supervised by a professional grant administrative assistant whose sole duty is to serve all grants at Fernald.

Concluding Comments

We reiterate our urgent request of last year for updated operating policies and procedures, for measures to insure greater staff competency, and for growing flexibility and informed leadership among the senior administrative staff. Programs which have been repeatedly demonstrated to improve behavioral competency should be permitted to flourish rather than forced to fight for meager survival. Is Fernald capable of strongly supporting proven techniques for training its residents? Or is it content to perpetuate the traditions which deny effective habilitation to its children?

Words alone will never convince. Only when Fernald becomes so obviously a training community that no one need try to find the training programs will its philosophy and practices approach mid-twentieth century standards.

We have been ready to help for as long as this Department has existed. Will it be possible?

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Director of Behavior Research